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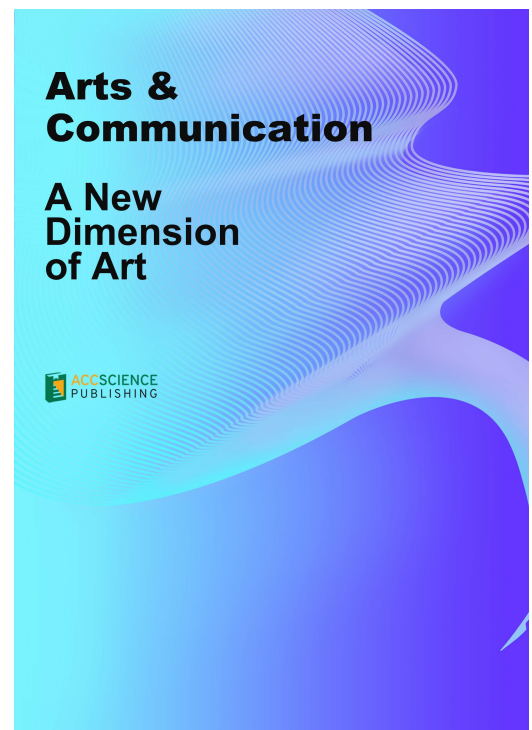
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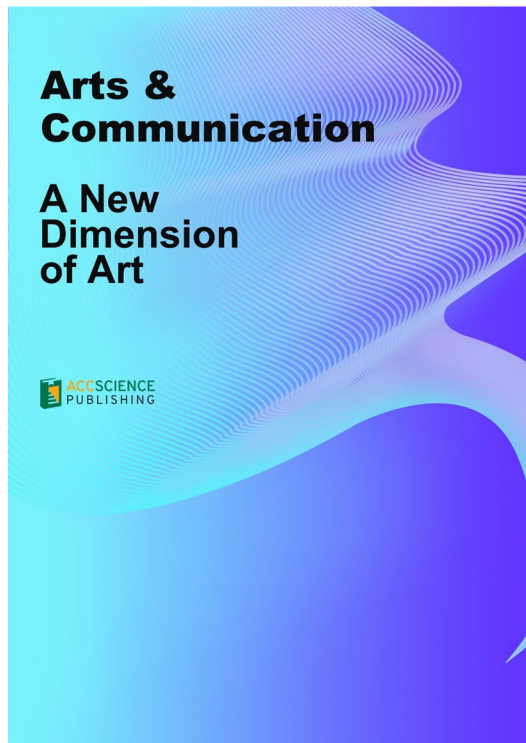
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REVIEW ARTICLE

A systematic review of augmented reality in mathematics education: Fostering learning through art integration

Nymfodora Voulgari, Michail Panagopoulos* , and Varvara Garneli 

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Abstract

Augmented reality (AR) is acknowledged as a promising educational tool fostering the manipulation, visualization, and contextualization of abstract concepts to enhance student motivation and comprehension. However, the lack of educator training in AR implementation underscores the necessity for further research and support for effective integration into teaching practices. To this end, this article conducts a systematic review based on the PRISMA guidelines to analyze 20 English-language journal articles from the SCOPUS database, wherein geometry emerges as the most extensively studied topic with AR potential. This paper provides insights into the successful integration and impact of AR in mathematics education along with an exploration of incorporating art elements in aiding students' understanding of mathematical concepts and their social-emotional and cognitive development. Furthermore, this study examines challenges in using AR technology in mathematics education, such as teacher training and technical implementation. The findings of this study are expected to provide a clearer understanding of the potential role of AR in mathematics education.

Keywords: Augmented reality; Mathematics education; Arts in mathematics; Systematic review

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1. Introduction

Innovative approaches for enhancing mathematics education involve the integration of advanced technologies such as virtual reality (VR) and augmented reality (AR), which offer unique opportunities for the creation of interactive and engaging learning experiences. Unlike VR, which immerses users in a fully simulated environment and requires specialized equipment that limit mobility and increase cost, AR overlays digital elements such as graphics, text, and three-dimensional (3D) models onto the real world, enhancing students' interaction with their surroundings. This technology allows educators to create visual models of mathematical concepts, significantly improving students' spatial reasoning and understanding of processes, properties, and theorem proofs.¹

Regarding the use of VR in mathematics education, the NeoTrie VR project exemplifies how VR can be used to enhance geometry education. By allowing students to interact with

3D geometric shapes in virtual environments, NeoTrie VR strengthens students' spatial reasoning and understanding of complex concepts. Moreover, its immersive nature fosters collaborative learning by making it possible for multiple users to engage simultaneously, thereby increasing student motivation and interest in geometry. Its flexibility also enables teachers to tailor lessons to various educational levels, making geometry education more interactive and effective.² The platform enables learners to explore and manipulate 3D objects in ways that traditional methods cannot, leading to a deeper understanding of geometric concepts. Therefore, for teachers, NeoTrie VR offers a powerful tool to make abstract geometric properties more tangible and accessible.³

Meanwhile, AR is also a promising tool for educators.⁴ According to Azuma⁵ (1993), AR merges virtual and real-world elements in real-time within a 3D space. Utilizing devices such as smartphones, tablets, headsets, and smart glasses, AR overlays computer-generated information onto users' physical surroundings. Hence, AR exhibits three core characteristics: real-time interaction, seamless integration of the digital and physical worlds, and the provision of contextual information to enhance user understanding.^{4,6,7} The previous studies have confirmed AR's potential across all educational levels from early childhood to university, as well as its potential to cater to diverse student populations including those with special needs. AR offers multiple learning opportunities with numerous benefits for teaching and learning,⁸ such as improving performance, increasing motivation, enabling new learning experiences, saving time, enhancing lab skills and attitudes, and fostering critical thinking, problem-solving, and communication skills.⁹⁻¹¹ In particular, mathematics education presents a natural fit for AR integration due to the potential benefits in manipulation, visualization, and authentic contextualization.¹² Integrating AR into mathematics education environments has been shown to enhance students' motivation, engagement, and comprehension.⁴ For instance, AR-enhanced field trips to museums, architectural sites, or natural landmarks can provide students with interactive learning experiences and additional information.¹³ Furthermore, incorporating game elements and challenges into mathematics instruction using AR can increase student engagement and enjoyment.¹⁴ Combining STEM (Science, Technology, Engineering, and Mathematics) subjects with the arts (STEAM) promotes active learning, offering a more engaging education.¹⁵

While AR shows promise in enhancing student participation and understanding, many teachers lack training in implementing this technology. Research on AR

implementation in schools is insufficient, leaving educators ill-equipped to effectively use it in classrooms. More research is needed to support teachers in effectively integrating AR into teaching practices.¹⁶ Recent technical, infrastructural, and societal developments have therefore recognized the potential of AR in the context of mathematics education research. Scholars and educators have reported a variety of outcomes; however, the lack of a summary of these empirical studies prevents stakeholders from forming a clear view of the benefits and challenges. Therefore, this article aims to provide a review of the current research on the evolving role of AR in mathematics education. Moreover, the potential of integrating mathematics curricula with arts and culture through AR will also be explored. We aim to summarize findings, guide future studies, and reflect on major achievements in the field. In particular, we explore the following research questions:

- RQ1: In which domains of mathematics education is AR technology currently applied, what tools are used, and what are the outcomes?
- RQ2: What are the challenges of employing AR technology in teaching mathematics?
- RQ3: How can mathematics be combined with the arts, architecture, and culture through AR-supported technology, and in how is this accomplished?

2. Data and methods

2.1. Research settings

Following the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines, two researchers independently conducted a systematic peer-reviewed search in the Scopus online database and then collaborated for the final selection. Our search key terms were "mathematics" and "augmented reality." We also included the terms "education" and "arts."

According to the previous studies,¹⁷ there has been a sudden increase in the number of publications since 2013, with publications reaching the highest level in 2016. Therefore, we explored the situation from 2017 and beyond.¹⁷ The period under study was 7 years, from January 2017 to January 2024. The search yielded 545 papers.

The key themes and findings were analyzed to provide insights into the implementation of AR tools and the pedagogical strategies employed to integrate the arts into mathematical instruction. During the screening stage, we used five criteria for selecting manuscripts for study: 1) original articles; 2) written in English; 3) published between January 2017 and January 2024; 4) in the field of mathematics education; and 5) provide empirical results on AR based on our research questions.

Based on these criteria, we screened the titles, abstracts, and keywords of the 545 studies, which resulted in 25 studies, five of which were further excluded because the full texts of three were unavailable and two did not respond to our research questions. We then examined the full texts of the remaining 20 studies in our systematic review. The screening process was conducted manually based on the Scopus database results.

Of the studies not included, 95 were rejected because they were published outside the 2017 – 2024 period. A further 363 were rejected because they were not related to mathematics education, and 62 were rejected due to the language and type of the document (Figure 1).

2.2. Papers collected

Following our screening process, we analyzed the remaining 20 studies according to our classification scheme, which is described below.

2.2.1. Utility, application, and effectiveness of AR in mathematical education

At first, we were interested in the publication year of these papers. Of the 20 studies reviewed from 2017 through 2024, most (15) were published from 2020 and beyond (Figure 2).

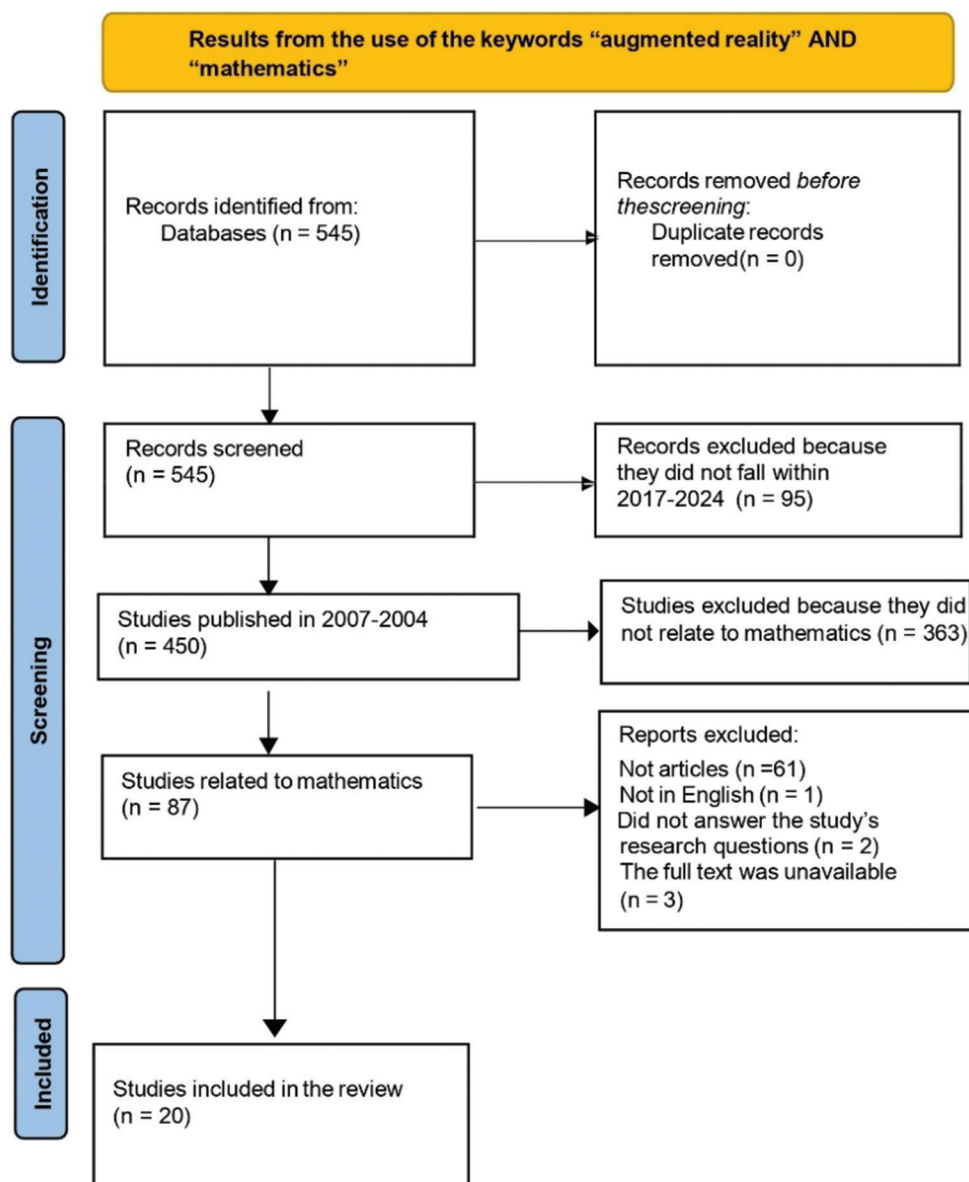


Figure 1. PRISMA flow diagram

An unexpected point of interest concerned the countries where the studies were conducted. According to our results, 12 countries published these papers (Table 1). Spain and Austria produced the highest number of articles (n = 5 and n = 4, respectively), and one article¹⁸ was coauthored by scientists from both countries. Mexico and Saudi Arabia published two articles each. Italy also published two articles, but one was cosigned with Israel. The remaining countries only

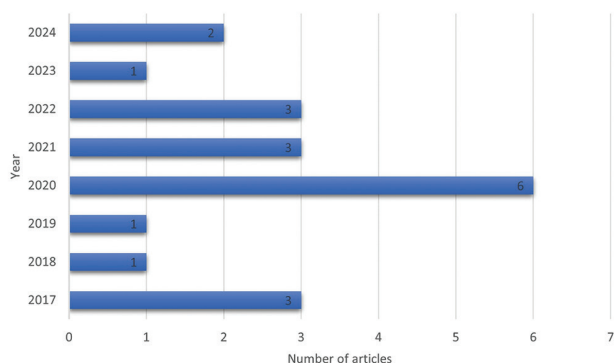


Figure 2. Number of articles by year

Table 1. List of articles by country

Country	Total	References
China	1	19
Saudi Arabia	2	20, 21
Spain	5	18, 22-25
Mexico	2	26, 27
Malaysia	1	28
Korea	1	29
Ukraine	1	30
Ecuador	1	31
Israel	1	32
Austria	4	18, 33-35
Italy	2	32, 36
Indonesia	1	37

Table 2. Main subject domains of the studies

Study Domains	Total	%	References
Geometry	12	60	18, 20, 24-27, 29, 30, 33-35, 37
Algebra	1	5	28
Geometry, algebra, and calculus	1	5	32
Mathematical functions	2	10	19, 22
Other (basic mathematics and school mathematics)	4	20	21, 23, 31, 36

published one article each.

We then examined which curricula using AR technology were featured in the studies. Geometry was the most widely studied topic in mathematics (n = 12 articles), followed by basic/school mathematics (n = 4), while two articles mentioned mathematical functions as their main topic. Finally, one article was based on an algebra curriculum and one on a mixture of algebra, geometry, and calculus (Table 2).

Furthermore, we were interested in identifying the educational level of the participants in these studies. They were mostly middle-school students and teachers (n = 5 articles). Elementary-education students follow in four articles (n = 4), two of which concerned pupils with learning disabilities: students with special educational needs (SEN) and students identified through Malaysia’s Literacy and Numeracy Screening program as requiring additional support due to physical, cognitive, or emotional challenges. Two studies focused on higher education (n = 2). In the final five articles, education level was not mentioned. The number of participants in the studies ranged from 5 to 82 (Table 3).

The next step was to examine the hardware used to implement AR in the studied educational contexts. Android tablets and personal computers were the most popular hardware tools reported,^{18,19,21,22,24-26,28-31,33,34} with mobile phones^{18,20-22,24,25,28,29,36,37} also seeing a high rate of use, which can be attributed to mobile devices’ suitability for use in classroom environments and their accessibility, affordability, and portability (Table 4).

Of the methods used to evaluate the effectiveness of the use of AR technology in mathematics education, the most popular strategy adopted by the researchers was the questionnaire at a rate of 45% (n = 9 articles)^{19,21-23,28,29,33,36,37} and pre-test/post-test at a rate of 40% (n = 8).^{19,20-22,23,25,31,36} Interviews,^{19,33} video recordings/transcriptions,^{32,33} and content analysis^{33,34} followed at a rate of 10% (n = 2), and 5% mentioned the use of observation cards (n = 1).²¹ A further 20% of the reviewed studies did not mention the evaluation method (Table 5).^{18,26,27,35}

The implementation of AR in the context of mathematics education resulted in various essential outcomes (Table 6). Regarding students’ cognitive and metacognitive achievements, several studies have reported positive outcomes from engaging students in activities within an AR teaching environment. Conceptual understanding was mentioned as an important effect of AR use in educational settings in many of the reviewed studies.^{18,19,22,23,27,28,30,31,33-35,37} Meanwhile, academic achievement^{19,21-23,27,29,35} and the development of visual-spatial thinking^{19,20,22,24-27,29,30,33-35} were also mentioned at a high rate, specifically in the field

Table 3. Educational level and range of study samples

Educational level	Sample size	References
Secondary	82	19
Secondary	76	20
Secondary	24	32
Secondary	Not mentioned	30
Secondary	30	37
Primary	30	25
Primary	29	31
Primary (SEN)	22	23
Primary (LINIUS)	32	28
Undergraduate	48	22
Undergraduate	40	29
Teachers	10	29
Teachers	15	36
Teachers	36	21
Teachers	10	34
Teachers	5	33
Not mentioned	N/A	18, 24, 26, 27, 35

Abbreviations: SEN: Special educational needs; LINIUS: Literacy and Numeracy Screening.

Table 4. AR hardware used in reviewed studies

Hardware	Total	%	References
Android tablets and personal computers	13	65	18, 19, 22, 24-26, 28-31, 33-35
Camera and motion sensors	3	15	20, 21, 31
Marker-based systems	6	30	20, 21, 23, 24, 36
Mobile phones	10	50	18, 20-22, 24, 25, 28, 29, 36, 37
Checklists, guidelines, booklets, and magic books	6	30	20, 21, 23, 24, 36, 37
AR headsets/VR glasses	2	10	30, 32
Interactive whiteboard	1	5	32
Not mentioned	1	5	27

Abbreviation: AR: Augmented reality; VR: Virtual reality.

of geometry. In addition, significant enhancements were observed in students' mathematical thinking/reasoning, meaning-making, and problem-solving abilities.^{23,24,26-28,32-37}

Furthermore, five studies noted a progressive acquisition of autonomy,^{24,28,30,31,34} and two highlighted the development of critical thinking for logical decision-making.^{24,36} Creativity was mentioned in one study,³⁵ and another study discussed modeling skills achievement.^{34,35} Finally, transdisciplinary learning was mentioned in four studies.^{18,33-35}

In terms of socioemotional outcomes, most of the studies indicated that integrating AR into teaching

Table 5. Evaluation processes in the reviewed studies

Evaluation method	Total	%	References
Pre-test/post-test	8	40	19-23, 25, 31, 36
Questionnaires	9	45	19, 21-23, 28, 29, 33, 36, 37
Interviews	2	10	19, 33
Video recording/transcription	2	10	32, 33
Not mentioned	4	20	18, 26, 27, 35
Observation cards	1	5	21
Content analysis methods	2	10	33, 34

Table 6. Cognitive and metacognitive outcomes of AR use in mathematical education

Outcomes	Total	%	References
Academic achievement	7	35	18, 20-22, 26, 28, 34
Understanding	12	60	17, 18, 21, 22, 26, 27, 29, 30, 32-34, 36
Visuospatial thinking	11	55	18, 19, 21, 23-26, 28, 29, 32-34
Autonomy	5	25	23, 27, 29, 30, 33
Mathematical thinking/reasoning, meaning-making, and problem-solving	11	55	22, 23, 25-27, 31-36
Critical thinking	2	10	23, 35
Creativity	1	5	34
Modeling skills	3	15	32-34
Transdisciplinary learning	4	20	17, 32-34

and engaging students in AR activities led to increased motivation,^{19,20,22-24,27-31,34,37} improved collaboration and teamwork among students in problem-solving activities,^{24,26,27,31,35,37} and enhanced interest in learning, which made the educational experience more engaging.^{22,23,28,30,37} In addition, two studies discussed students' interest in engaging in more AR-based learning opportunities in the future,^{19,23} and another study highlighted the positive impact of AR activities in reducing students' anxiety about mathematics.²⁷ Finally, one study suggested that conducting AR activities at home with parents may strengthen family bonds and promote self-directed learning (Table 7).¹⁹

In terms of pedagogical outcomes, participants found AR activities to be useful^{18,19,21,23,36} and easy to use^{22,28,36,37} and found that they facilitated learning,^{19,21-23,28,29,37} saved time,²⁸ and promoted active learning (Table 8).^{27,37}

Based on the above findings, first, AR technology was found to significantly enhance students' visual thinking and spatial visualization skills. Studies such as those by Elsayed and Al-Najrani,²⁰ Flores-Bascuñana *et al.*,²⁵ and

Table 7. Socioemotional outcomes of AR use in mathematical education

Outcomes	N	%	References
Learning interest	5	25	22, 23, 28, 30, 37
Motivation, perseverance, ambition, enjoyment, and satisfaction	10	50	19, 20, 22-24, 27-31, 34, 37
Collaboration	8	40	21, 24, 26, 27, 31, 35-37
Anxiety/stress reduction	1	5	27
Interest in future AR use	2	10	19, 23
Self-learning/family bonding	1	5	19

Table 8. Pedagogical outcomes of AR as a learning tool in mathematical education.

Pedagogical outcomes	Total	%	References
Utility	4	20	18, 19, 21, 23, 36
Easy to use	4	20	22, 28, 36, 37
Facilitate learning	6	30	19, 21, 23, 28, 29, 37
Save time	1	5	28
Active learning	2	10	27, 37

Salinas *et al.*^{26,27} highlighted how AR-based instruction improved students' ability to grasp 3D geometric concepts and visualize abstract ideas.

Second, AR was found to enhance academic motivation and engagement. Elsayed and Al-Najrani,²⁰ Salinas,^{26,27} and Awang *et al.*²⁸ found that learners who used AR applications were more motivated and engaged in mathematics than those who used standard teaching methods. The interactive and immersive nature of AR fostered a positive learning environment that encouraged active participation and exploration.

Third, AR promoted problem-solving and critical thinking. Vakaliuk *et al.*,³⁰ Nindiasari *et al.*,³⁷ and Li *et al.*¹⁹ demonstrated that AR enhances students' ability to solve mathematical problems, particularly in geometry and spatial reasoning. A hands-on approach to learning through AR encouraged students to apply their theoretical knowledge in real-world scenarios, further developing their problem-solving abilities.

In addition, AR facilitated interdisciplinary learning. El Bedewy *et al.*³³⁻³⁵ and Botana *et al.*¹⁸ explored how AR can connect mathematics with cultural, historical, and architectural contexts. By modeling historical structures and integrating automated reasoning in mathematical explorations, AR deepened students' comprehension and bridged abstract concepts with real-world applications.

Furthermore, AR technology was noted to be accessible and cost-effective. Fernández-Enríquez and Delgado-

Martín²⁴ emphasized that AR applications can run on various devices, making them feasible for classrooms with diverse technological resources. Moreover, the affordability of AR teaching materials made them an attractive choice for educators seeking innovative yet practical educational solutions.

Despite the similarities in the findings, the studies varied in their specific focus areas and methodologies. Most of the studies employed a quasi-experimental design, involving experimental and control groups to measure the effectiveness of AR in improving mathematical skills. For instance, Elsayed's research on middle-school students in Saudi Arabia and Lozada-Yán's study on Ecuadorian third graders utilized pre- and post-tests to compare outcomes.^{20,31} This design ensured a structured evaluation of AR's impact on learning.^{24,26-28,37} While Flores-Bascuñana's work on the teaching of 3D geometric concepts in a primary-school class did not include a pre-intervention evaluation, limiting the conclusiveness of the results,²⁵ Alibraheim's study on teacher training incorporated a rigorous pre-/post-test design to assess skill enhancement in using AR applications.²¹

The technological tools and platforms used in the studies also differed. While Fernández-Enríquez and Delgado-Martín utilized Unity along with Vuforia to create AR resources,²⁴ Kounlaxay *et al.* and Del Cerro Velázquez and Morales Mendez leveraged GeoGebra AR to teach geometric concepts.^{22,29} These differences highlight the versatility of AR tools in various educational contexts.

Moreover, some studies extended the applications of AR beyond traditional classroom settings. For example, Cascales-Martínez *et al.* explored the use of a multi-touch tabletop system for teaching money management to students with SEN,²³ and El Bedewy *et al.* examined AR's role in museum-based STEAM education, connecting mathematical learning with cultural and historical contexts.³³⁻³⁵

2.2.2. Challenges of employing AR technology in mathematics curricula

Only seven studies identified issues with AR technologies that could impact the effectiveness of learning activities (Table 9). Two-thirds of the students participating in one intervention¹⁹ provided valuable feedback for app improvement and expressed willingness to participate in more AR-based learning experiences. Most of the learners suggested updates to tablet computer configurations, stable card recognition systems, realistic 3D scene simulations, diverse real-life and game contexts, and the time allocated for play and problem-solving. Interview results confirmed these recommendations; in addition, the interviews

Table 9. Challenges and recommendations for AR-supported education

Issue	Description	Recommendations	References
Autonomy, concentration, and confidence	Low-achieving learners struggled with these aspects and needed teacher support	Provide teacher training to foster encouragement and engagement among students during AR activities	23, 28, 29, 31
Teachers' challenges in implementing AR	Teachers struggled with integrating AR in their lessons	Implement comprehensive teacher training programs that focus on technical AR skills and pedagogy	24, 29
Technical limitations	Problems with tablet configurations, card recognition, and 3D scene simulations	Improve app designs with better device configurations, realistic simulations, and stable recognition systems	19
Lack of prior knowledge assessment	Failure to assess students' knowledge before AR activities	Include prior knowledge assessments to provide tailored AR interventions	25
Limited availability of AR in schools	Lack of devices such as tablets, smartphones, and high-speed internet in under-resourced schools	Promote low-cost or free AR apps, seek partnerships for device donations, implement shared-device models, and integrate collaborative learning models	24
Visual issues	Students requested enhanced visuals, such as better graph colors and font sizes	Optimize the visual design of AR apps to improve clarity and usability	19
Lack of AR tools	AR tools are not widely available in less developed regions	Encourage the use of open-source platforms such as GeoGebra and mobile apps with AR functionality	29
Unaffordable AR platforms	High cost of AR platforms and devices	Develop more affordable AR solutions and integrate them into educational curricula	19

identified improvements such as optimizing visual effects on the screen including graph colors and font sizes. Notably, these students explored the game independently due to the game-based design of the AR app, which lacked social interactivity.

Low-achieving learners, who comprised most of those reporting issues in AR learning environments, expressed concerns about autonomy, concentration, and self-confidence.^{23,28,29,31} They often required teachers' reassurance and encouragement from teachers to engage or persist in AR activities. Furthermore, only two studies addressed teachers' challenges in implementing AR activities.^{24,29} Finally, Flores *et al.* reported that their results lacked strength as they did not include an evaluation of learners' prior knowledge.²⁵

Despite its educational potential, a key limitation of AR technology, as highlighted in the study by Fernández-Enríquez and Delgado-Martín²⁴ (2020), was its limited availability, particularly in under-resourced educational settings. Many schools and students lacked access to necessary devices such as smartphones, tablets, or high-speed internet, creating barriers for the widespread adoption of AR in classrooms.

To address these challenges, the study suggested adopting low-cost AR solutions, many of which are available as free or affordable apps compatible with basic mobile devices, which will reduce the need for expensive hardware. The authors also recommended that schools and technology providers form partnerships to secure funding or device donations to bridge the digital

divide. They emphasized the importance of teacher training programs to ensure that educators can effectively integrate AR into lessons, covering both technical proficiency and pedagogical strategies that will enhance students' learning of complex concepts. Teachers should be trained to develop AR-based learning materials and use them to improve students' spatial reasoning skills. In addition, the study proposed incorporating AR into collaborative learning environments, where students share devices, thus promoting teamwork and ensuring that more students benefit from the technology without needing one-to-one device availability. This model not only improves access but also fosters peer learning and collaboration.²⁴

A similar issue with AR's limited availability was noted in the study by Kounlaxay *et al.*,²⁹ particularly regarding less developed regions. They suggested adopting open-source tools like GeoGebra and mobile applications with AR functionality. Teacher training was again emphasized as a critical component to overcoming technological constraints, helping to make AR-supported education more accessible and effective.²⁹ Li *et al.*¹⁹ further recommended developing more affordable AR platforms and integrating them into curricula to complement traditional teaching methods.¹⁹

2.2.3. Connecting humanities and mathematics through AR

Of the 20 reviewed studies, four studies explored the integration of arts, architecture, history, and culture into mathematics education using AR technology. Among these,

two studies specifically emphasized non-formal learning environments, such as museums and outdoor settings. For example, in 2024, El Bedewy *et al.*³³ investigated the role of museums as facilitators of interdisciplinary learning experiences. The researchers investigated various museum activities and programs that connected mathematics with arts, architecture, culture, and history, such as learners using AR to explore mathematical patterns in architectural structures (e.g., Islamic geometric designs and historical buildings) and overlay mathematical grids onto exhibits such as sculptures and paintings. This enabled students to learn about mathematical concepts such as symmetry, tessellation, scaling, and proportions in a real-world cultural context. The impact on students' learning outcomes was significant, as AR increased engagement, improved comprehension of abstract mathematical ideas, and enhanced problem-solving skills by connecting mathematics with culturally relevant artifacts. This analysis highlighted the potential of museums as conducive environments for STEAM education, offering diverse opportunities for interdisciplinary learning and exploration. The museum served as a space where learners could engage in transdisciplinary practices that foster creativity and modeling skills by interacting with historical and cultural artifacts. The museum in this context functioned as more than a traditional exhibition space; it became a space where students and educators could explore these disciplines in a hands-on manner, using technology such as GeoGebra for architectural modeling and learn about the visual arts and cultural history. This approach allows learners to deepen their understanding of mathematical concepts and their connections to the broader world.³³

Meanwhile, the initiative by Botana *et al.*¹⁸ was centered on leveraging AR technology to enhance outdoor learning experiences with mathematics. By automatically generating AR content related to mathematical concepts and embedding it into outdoor settings, the researchers provided students with engaging and immersive learning opportunities. This approach sought to increase student engagement, foster a deeper understanding of mathematical concepts, and promote outdoor learning. The examples provided, including the $\{8/2\}$ polygon at Sardinero Beach and Okuda's artwork *Infinite Eye I*, illustrated practical applications of mathematical concepts in real-world scenarios. These examples demonstrated the potential of technology such as GeoGebra in helping students validate mathematical principles and analyze artistic creations within AR-enhanced learning environments.¹⁸

Earlier studies by El Bedewy *et al.* from 2021³⁴ and 2022³⁴ also proposed innovative approaches for utilizing

the arts as pedagogical tools for teaching mathematical concepts. El Bedewy *et al.*³⁴ demonstrated how AR could be employed to integrate art, culture, and architecture into mathematics education. AR enabled participating students to explore historical structures, such as temples and bridges, and analyze the embedded mathematical principles in their designs, including symmetry, proportion, and geometric patterns. In addition, AR was used to project visual representations of culturally significant artworks, allowing students to examine mathematical concepts such as scaling, perspective, and tessellation. This approach had a substantial impact on students' learning, enhancing their engagement, problem-solving skills, and conceptual understanding, particularly in geometry and spatial reasoning. AR also fostered creativity and critical thinking by connecting mathematics to broader cultural and historical contexts.³⁴

The 2021 study³⁴ entailed the use of architectural models, such as Cheomseongdae and Dendera Temple, to enhance mathematical understanding. Students analyzed Cheomseongdae mathematically using the Surface of Revolution concept before creating 3D models in GeoGebra. Deviation from the prescribed steps prompted students to create alternative models, encouraging creativity and exploration. Similarly, the Dendera Temple model requires basic geometric skills and an understanding of shape relationships. Students reconstructed the temple using simple shapes, exploring connections between length, height, and width. Teachers could prompt students to either imitate existing models or innovate on them, fostering problem-solving and critical thinking skills. This approach allowed students to visualize designs in AR and produce physical copies through 3D printing, facilitating deeper comprehension without physical access to architectural sites. Overall, this educational method promoted creativity, collaboration, and critical thinking among students, enriching their understanding of mathematical and architectural concepts³⁵ Table 10 provides insight into the approaches used to integrate mathematics with arts, architecture, history, and culture in educational settings.

3. Discussion

This systematic review investigated the evolving role of AR in mathematics education, the results achieved, the challenges faced, and the integration of AR with art to enhance students' learning.

3.1. Applications and outcomes of using AR in mathematics education

AR was applied in mathematics education through various means, including integration with specific mathematical

Table 10. Arts in mathematics education through AR

References	Architecture	Arts	Culture	History	Technologies	Learning skills	Educational environment
33	✓	✓	✓	✓	AR, GeoGebra 2D/3D, 3D printing	Modeling, visualization, understanding	Indoor museums
35	✓	✓	✓	✓	AR, 3D printing	Modeling, problem-solving, creative thinking, visualization	Indoor classroom
34	✓	-	✓	✓	AR/VR, GeoGebra 2D/3D, 3D printing/scanning, origami, 4D frames	Modeling, problem-solving, critical thinking, visualization, understanding	Indoor classroom, outdoors, online, museums
18	✓	✓	-	-	AR, GeoGebra 2D/3D	Engagement, understanding, immersive outdoor learning, automated reasoning	Outdoor educational settings

topics such as geometry.³⁸ A notable application was modeling,³⁹ in which students could create virtual 3D objects on real-world surfaces.⁴⁰ They could measure and label objects to determine their real values, facilitating learning such as calculating the volume of a prism. Another application was geometry, particularly in developing spatial abilities⁴¹ and recognizing the properties of different shapes.⁴² AR applications facilitated the visualization of abstract mathematical concepts, aiding in the development of geometric thinking.⁴³ Moreover, they allowed students to examine geometric bodies and their properties in detail, aiding the development of spatial skills. Educators designed AR-based learning environments using mobile applications, tabletop systems, and AR-enhanced field trips to provide students with interactive and immersive learning experiences.

Moreover, AR applications were found to enhance the learning process, motivation, and efficiency. These applications improved student performance and increased motivation by enabling new learning experiences, saving time, enhancing lab skills and attitudes, and fostering critical thinking, problem-solving, and communication skills.⁹⁻¹¹ Students demonstrated improved comprehension and academic performance in mathematics due to the enhanced visualization of mathematical concepts and real-world applications afforded by AR technology.¹² Furthermore, students who engaged in AR-enhanced learning experiences⁴⁴ developed their socioemotional skills and cognitive abilities. AR-enhanced field trips to museums,⁴⁵ architectural sites, or natural landmarks provided students with interactive learning experiences and additional information.¹³ In addition, the incorporation of game elements and challenges into mathematics education using AR was shown to increase student engagement and enjoyment.¹⁴ Increased motivation and engagement were overall the most striking changes, as students found AR-based activities more engaging and enjoyable than traditional instructional methods.^{4,44}

3.2. Challenges of employing AR technology in mathematics education

Although AR offered numerous benefits to mathematics education, its implementation presented several challenges. Technical constraints, such as the reliability and accessibility of the AR technology, presented significant obstacles for educators. Researchers delineated various limitations of educational AR applications, encompassing usability issues, student distraction, and technical hurdles.^{19,23-25,28,29,31} While some technical issues can be resolved with time, these investigations demonstrated that challenges such as inadequate teacher training and lacking social acceptance persist, hindering the widespread adoption and effectiveness of AR in education and society.⁸ To overcome these challenges, comprehensive teacher training is paramount, which would enable educators to effectively integrate AR into their teaching practices while addressing the associated usability concerns and practical limitations. The slow diffusion of AR technology in educational settings emphasizes the necessity for heightened awareness and acceptance among educators and stakeholders.¹⁶

3.3. Combining AR technology and mathematics with the arts

The traditional education system often imposes rigid boundaries between the arts and the sciences, hindering holistic development. However, historical figures such as Leonardo Da Vinci have proved the value of integrating the arts and sciences for innovative problem-solving. “Active learning,” which blends STEM subjects with the arts, offers a more engaging educational approach.¹⁵ Aligning with the STEAM framework, the combination of AR with arts and culture in mathematics education promotes holistic learning⁴⁶ and nurtures student creativity.^{47,48} Assignments that integrate works of art or architectural monuments with mathematical concepts reinforce the interdisciplinary nature of education.⁴⁹ By infusing the arts into STEM subjects, AR technology enhances collaboration and

engagement in STEAM education, providing students with interdisciplinary learning opportunities.⁵⁰ Through AR-enhanced activities, students can explore the intricate connections between mathematics and the arts in field such as architecture, gaining a profound appreciation for the practical applications of mathematical concepts in real-world contexts.⁵¹

4. Conclusions

Looking ahead, we believe that this study's findings will prove useful to educators and course designers of mathematics curricula. The integration of the arts in mathematics education through AR also presents a promising avenue for future research. That said, the challenges mentioned above suggest the need for continued investigation and innovation to enhance the effectiveness of AR in mathematics education. Furthermore, machine learning and its applications in visualizing and detecting new, hidden geometric features in art objects (e.g., drawings, paintings, and monuments) for automated reasoning in tools such as GeoGebra is a potential avenue for future work.

Our reliance on the Scopus database presents a limitation, as it is likely that relevant studies from other electronic sources were missed. Expanding the search to additional databases would likely have strengthened the review. However, we chose Scopus as the sole database due to its comprehensive coverage across various disciplines and its access to high-quality, peer-reviewed journals. The advanced search capabilities and robust citation tracking within Scopus allowed for precise, efficient literature retrieval. Using a single, reputable database streamlined the research process and ensured consistency and reliability, which are critical for the reproducibility of the findings. In addition, Scopus's widespread availability through academic institutions made it a convenient and dependable choice.

This literature review provides a comprehensive overview of the evolving role of AR in mathematics education, particularly its integration with the arts and culture. Analyzing 20 English-language journal articles from the Scopus database following the PRISMA guidelines, we revealed AR's effectiveness in enhancing students' visual thinking, spatial visualization, and comprehension of 3D geometric concepts in mathematics education, with geometry being the most extensively studied topic. The findings emphasize AR's significant impact on fostering student motivation and engagement, as its interactive and immersive nature creates a positive learning environment that facilitates active participation and exploration. This leads to improvements in students'

problem-solving skills and critical thinking, with quasi-experimental studies consistently showing the benefits of AR in boosting academic performance.

In addition, AR facilitates interdisciplinary learning by connecting mathematics with real-world cultural, historical, and architectural contexts, broadening students' understanding and providing applications that made learning more relevant and engaging for them. Examples included AR-enhanced field trips and projects that integrated mathematics with architecture, the arts, and history, demonstrating AR's potential to foster creativity, collaboration, and critical thinking. Notably, however, the review also highlights pertinent challenges, such as technical constraints and a lack of comprehensive teacher training, that hinder effective implementation. Future research should address these issues by exploring diverse AR applications, conducting rigorous evaluations, and developing accessible and cost-effective AR tools. Emphasizing the integration of AR with the arts will offer valuable insights into leveraging interdisciplinary approaches to enhance mathematics education. This study's findings highlight AR's transformative potential in mathematics education, promising a future full of dynamic, interactive, and engaging learning environments.

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REVIEW ARTICLE

Review of the “2023 international symposium on global art market research”

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Abstract

The 2023 International Symposium on Global Art Market Research aimed to spark a renewed conversation about global art market research in the post-pandemic era. The event featured both cross-disciplinary and multi-disciplinary approaches to the study of international art markets, focusing on the theme of “re-globalization.” Scholars from around the world presented analyses of regional dynamics from a global perspective, highlighting the connections and divisions within the global art market, and exploring the construction and mobility of art market centers and non-centers. In the context of globalization and plurality, the research presented by several scholars reflects a concern for the identity of the participants in the market, demonstrating both cooperation and confrontation in the process of art market globalization. The symposium also advocated for the application of emerging tools and interdisciplinary research methods within the art market research paradigm. The topics covered during the event reflect the comprehensive nature of art market research, offering valuable insights and methodologies for advancing the field.

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Keywords: Art market; Re-globalization; Methodology; Geographical study; Cultural equality; Emerging art markets

1. Introduction

Globalization in the art market has a long history, dating from the ancient Chinese Kowatari and the export of porcelain to the 16th-century Antwerp and 17th-century Amsterdam painting markets. Even before the birth of the modern nation-state, various forms of cross-regional art trade existed around the world. Since the 19th century, the “dealer-critic” system, associated with Impressionism, helped establish a transnational art market. In the second half of the 20th century, the creation of transnational auction houses, art fairs, biennials, and museum systems collectively contributed to the development of a truly global art market. Entering the new century, the acceleration of global economic integration and the circulation of contemporary art have increasingly transcended geographical and cultural boundaries. With the transnational flow of artworks, changes in trading methods, and the reshaping of the market structures, the art market has evolved into a complex and dynamic global system.

This global market influence is challenging traditional centers. The distinctiveness of non-Western regions has gained attention, and the gradual establishment of new markets has prompted a reconsideration of the “center-periphery” structure in the art market. In

this process, there has been an inevitable fusion and clash of cultures and economies between East and West, and between North and South. However, the globalization of the art market has not led to a sufficiently diverse cultural landscape, as the gap between countries has continued to widen. Meanwhile, populism, protectionism, and “anti-globalization” sentiments have grown stronger. The challenges we face today – ranging from the climate crisis to localized conflicts and widespread inequality – are global issues that require global solutions. In this context, dialog and communication are crucial, making “re-globalization” an especially valuable topic of discussion.

While the globalization of cultural research has been a significant development,¹ the global history paradigm in the field of art market research is still in the process of being established. Reviewing the trajectory of contemporary global art market scholarship, we see that in the 1980s, with the advancement of information technology, artworks began to circulate globally. During this period, the Western-centered research paradigm dominated, primarily focusing on the development of the art market in Europe and the United States. Influenced by the concepts of “globalization” and “connected history,” Western scholars began incorporating non-Western art into their research, a shift that has come to be known as “global history.” This shift symbolizes the interconnectedness and integration of Eastern and Western art research. With the rise of cross-cultural research, scholar Wu Hong² has made a significant contribution to the construction of a pluralistic, symbiotic research paradigm through his methodology of “learning from the East and the West,” which emphasizes mutual observation and active dialog between different cultures within the context of globalization.

Recent research has increasingly approached the art market from a broader perspective, examining the impact of economic marketization and globalization on art creation, exhibitions, and sales. Sociological scholars have focused on the effects of globalization on the art market, including changes in market structure, shifts in the artistic preferences of artists and collectors, and the evolving influence of these groups. Their research also explored the complex relationship between cultural and economic values, particularly how globalization affects the pricing and collection of artworks.³ In 2009, Belting⁴ co-edited a series of anthologies with scholars on the globalization of contemporary art in the 21st century, raising important questions about the impact of globalized art production and consumption. In 2015, *Cosmopolitan Canvases: The Globalization of Markets for Contemporary Art*, edited by Velthuis and Curioni,⁵ brought together cutting-edge research on the globalization of contemporary art markets. This book focuses on the organizational networks that

facilitate the global mobility of the art market, while also identifying multiple obstacles faced by the market in its process of globalization. In 2018, a special issue of the journal *Poetics* on the theme “Global Art Markets” was published, featuring a collection of articles that analyzed the manifestations, mechanisms, and consequences of globalization within the art market. At the same time, skepticism regarding the term “globalization” persists, and some scholars maintain a cautious stance toward its impact on the art market. Art sociologist Alain Gorman’s research on art fairs, for instance, has shown that the contemporary art market remains dominated by a few countries and is highly regionalized.⁶ In 2013, Velthuis,⁷ through a quantitative analysis of gallery practices, argued that “globalization” in the art market is still in its infancy.

The Chinese market has emerged as a prominent force within the global art world, and the rise of art market research and practice in China is closely aligned with the forces of globalization. By adopting Western models of art market organization and operation, China has developed a contemporary art market system, and today, it stands as the world’s second-largest art market,⁸ playing a core role in the global art market. As such, globalization is a critical context for Chinese art market research. Within this field of research, Chinese art critics present two opposing perspectives on globalization.⁸ He⁹ expressed reservations about globalization, viewing it as synonymous with “Westernization” and influenced by cultural hegemony. On the other hand, Wu¹⁰ argued that “international survival” will be the inevitable path for the development of Chinese art. With the introduction of interdisciplinary perspectives and research methods, along with the establishment of research platforms, the globalization of the art market has become a topic of broader and deeper discussion in China. In 2018, the China Chapter of the International Art Market Studies Association (TIAMSA) was founded at the Central Academy of Fine Arts (CAFA) in Beijing, providing a platform for professionals in related fields worldwide to exchange ideas and foster connections. In 2019, the International Symposium of Global Art Market Research was jointly organized by CAFA’s School of Arts Administration and Education and TIAMSA CHINA. The conference, themed “Structure and Innovation,” covered a range of topics, including current international art market trends, regional competition, innovation in art market business and service models, financial innovation, technological advancements, operational innovation in art market institutions, and the globalization of art market research. This symposium laid the groundwork for fostering connections and promoting exchanges between the Chinese art market and the global art market.

The 2023 International Symposium on Global Art Market Research, held 3 years after the inaugural forum in 2019, aimed to re-establish a close dialog on global art market research in the post-pandemic era. The symposium's theme, "Re-globalization: Practices from the art market," invited researchers and professionals from diverse fields to discuss cutting-edge issues, core concepts, and research methodologies in art market research. Representatives from China, Germany, Canada, Portugal, Australia, Britain, France, and other countries attended the event. The conference aimed to share the most professional and in-depth research on the art market, focusing on the main theme of "re-globalization" and discussing the methodology of current international art market research in a global context. The conference covered topics, including the geo-study of the art market, the interaction between central and emerging markets, the status quo of the emerging art market, the history and strategies of market development, cross-civilization dialogs in the art market, and issues of cultural equality. Authoritative scholars from various fields presented their research in six thematic sections: "Pandemics and the movement of the art market," "Cities and dynamic globalization," "The diverse connections of art collecting and institutions," "Displacement and shifts in global art markets," "Historical processes and market shaping," and "Value, accumulation, and industrial innovation."

At the same time, the symposium highlighted the energetic involvement of young scholars, with contributions from students and young researchers from both domestic and international universities. Young scholars from the CAFA, Tsinghua University, Capital Normal University, Communication University of China, Nanjing University, Hubei Academy of Fine Arts, New York University, University of Nottingham, and other institutions brought new research perspectives and topics of concern to the field of art market studies. These scholars engaged in discussions and exchanges on five key topics: "Development, consumption, and application of non-fungible tokens (NFTs)," "Cultural policy and art law from a global perspective," "Prices, data, and paradigms in art market research," "Identity and cultural narrative in the art market," and "Cross-border circulation of Chinese art: History and the present."

While the globalization of the art market is not a new phenomenon, it should be seen as a new wave in the current "post-epidemic era." There is an urgent need to bring together scholars and researchers from around the world to discuss whether the globalization of the art market will be strengthened or weakened in the coming years. In addition, we must explore the emerging trends and

directions in this development. To address these questions, this forum proposed the theme of "re-globalization" to gain a better understanding of the current state of globalization in the art market and to confront the global challenges of the 21st century.

2. The post-pandemic era: New challenges for market players

The current discussion of the art market is framed within the significant context of the "post-epidemic era." Following the epidemic, there have been notable shifts in people's lifestyles and consumption patterns. These changes have contributed to a more diverse, specialized, and international art market. Market participants must continuously innovate and adapt to address the evolving challenges and opportunities. Galleries, museums, curators, collectors, and other "cultural intermediaries" play a central role in the globalization of the art market. By establishing and globally validating artistic value, these intermediaries facilitate the international flow and trade of artworks. They are not only key players in the art market but also the driving force behind its globalization. Scholars in this field are increasingly focusing on the role of cultural intermediaries and are examining the challenges and future directions for market participants in this new era.

Zhang Zhenglin, a professor at CAFA, highlighted the key challenges facing the art market by focusing on significant socio-economic changes post-pandemic. He discussed whether post-pandemic art, as an alternative asset, reflects the characteristics of classic research formulations in the field of art assets. Referencing classic international theories, Zhang argued that the value preservation and compartmentalization of art as an alternative asset become evident in response to major socio-economic shifts. The short-term shock and recovery period following the pandemic has fostered deeper service and innovation in trading products. Globalization has also introduced new requirements for art dealers. Zhang's study analyzed the short-term impact of the pandemic on the art market and provided a foundational framework for understanding the transformation of art market distribution management in the post-pandemic era.

Elisabetta Lazzaro, a professor at the Creative Industries Business School of the University for the Creative Arts (United Kingdom), focused on the intermediary role in the art market, where intermediaries act as "gatekeepers" in shaping artistic tastes and trends within the contemporary art system. Her work explored the influence of art fairs on artist diversity and the impact of new digital financing tools on the contemporary art market. Art fairs have evolved into more interactive global platforms. An analysis of the

geopolitical participation of artists and galleries at Art Basel showed the dominance of galleries and artists from a few Western countries. In addition, her study examined how traditional intermediaries are being challenged by new financing models, such as crowdfunding. Lazzaro has investigated the impact of crowdfunding on artists' creative processes, financial sustainability, and digital finance and marketing strategies, demonstrating how crowdfunding can attract a broader range of investors, dismantle traditional barriers, and influence art trends.

Jeremie Molho, a senior research associate at Toronto Metropolitan University (Canada), focused on the role of "hypermobile" art professionals in the rise of global art market centers. Molho identified three main aspects of hypermobility: the movement of art professionals between cities for short-term projects, the creation of local art scenes and cross-cultural communities, and the development of global hub cities. Through interviews with researchers and art practitioners in Istanbul, Doha, Singapore, and Hong Kong, Molho demonstrated how these "hypermobile" art specialists contribute to the emergence of art center cities. Observing mobility institutions and governance is crucial for understanding the dynamics of the art market. Constraints on mobility have favored short-term and elite mobility, perpetuating global art market hierarchies. This research offers a new perspective on the variations and continued dominance of historical powers within the global art market.

3. Market shaping: Center replacement and urban/rural construction

Globalization has significantly transformed the structure of the art market. Artworks now move across borders more frequently and art trading are no longer confined to traditional art centers. Emerging markets are playing a more prominent role and are closely interacting with established markets. The development of emerging markets has influenced traditional markets, while traditional markets have also provided valuable models for emerging markets to learn from. Scholars have discussed the interactions between markets in different regions and countries; the social, economic, and financial factors that contribute to the prosperity of the art market; and the background, motivation, and mechanism of art trading center formation. These discussions not only highlight the impact of globalization on the art market's structure but also reveal the complex dynamics of cultural, economic, and social change.

The construction and flow of urban and rural art systems and participants have become key topics in current market research. Focusing on China's urban-rural integration

and development, art has been shown to contribute to synergistic development between urban and rural areas through cultural and ecological landscape shaping, as well as industrial integration. From a global perspective, scholars analyzed the construction and dynamic changes of art market centers by using specific cities as case studies. Peng Wei, a postdoctoral researcher at CAFA, examined the intersection of art, industry, the art market, and social values by tracing the stages of rural art development in China. In the context of rural art construction, a dualistic structure beyond the urban-rural divide is established through the interoperability of culture and resources, as well as the pursuit of artistic equality. Rural construction now emphasizes the importance of respecting villagers' subjectivity while addressing their self-identity and local pride. At the same time, rural art is focused on localized expression, showcasing local landscapes and cultural heritage. Through the development of the art-integrated industry, the transformative power of art, a driving force for both urban and rural areas, is made visible. Ultimately, this approach fosters the importation of rural values into the city, the importation of urban resources into the countryside, and the construction of a more balanced urban-rural interaction, with art as a key mediator.

Regarding urban concerns, Ma Xuedong, the Investment Director of Guardian Co. Ltd. and Research Director of Guardian Art Center, discussed the historical flow of art trading centers and proposed that for a city to become a global art trading hub, it must possess certain advantages and exhibit dynamism in areas such as transportation, urban culture, consumer spending power, resource absorption, comprehensiveness, and openness. The distinction between the "old center" and the "new center" is not a simple dichotomy. With the "re-globalization" of the global art market, art trading centers will not only exhibit a diversified and decentralized development but will also contribute to the increased diversification of the art market. In addition, there will be greater interdependence and complementarity between the "old centers" and the "new centers." Huang Jun, Associate Dean of the School of Applied Economics at Renmin University of China (Beijing, China), has focused her research on the Singapore art market, which has garnered global attention over the past 3 years. Due to geopolitical shifts and the crowding-out effect from neighboring regions, significant financial investment has flowed into the region, with many art activities and market transactions taking place. Singapore shares strong correlations with Hong Kong SAR, China, in terms of economic characteristics. Huang explored the similarities and differences between the two, involving population size, economic volume, historical development, and geographical location. She proposed that Singapore's

economic conditions have laid a solid foundation for the formation of its art trading center. The Singaporean government places significant emphasis on cultural and artistic development. However, the proportion of art collectors remains small, there is a lack of internationally prominent art museums, local galleries struggle to survive, and the influence of tariffs hinders market momentum. Although Singapore is an affluent, developed country with favorable urban conditions, the establishment of its art trading center still depends on the long-term interplay of political, economic, historical, technological, and other factors.

4. Focusing on emerging sectors: Diversity in regions and governance

At the intersection of economics and culture, the “re-globalization” of the art market must prioritize interculturality, cultural diversity, cultural equality, and dialog across civilizations. The participation of “emerging countries” is essential to this process. In line with the trend toward localization in the art world, significant positive changes have been observed in the art markets of Asia, the Middle East, and Southern regions in recent years. These regions, which were previously overlooked, are now making meaningful contributions to the development and research of their local art markets. Their firsthand experiences are helping to enrich the current framework of globalization.

The development of the art markets in emerging regions is driven by both economic and cultural forces. Art has become a new area of economic growth, and there is a growing interest in “local art” in these regions.¹¹ The art market also plays a pivotal role in shaping cultural identity and image. Consequently, late-developing countries are increasingly focusing on their cultural industries and economies. Researchers in the field are studying the rise of emerging regions and the innovations occurring within their markets, creating a complex and thriving global art network based on public data and academic findings.

As the global art market landscape evolves, research on market operations and related mechanisms is crucial for sustainable development. These research topics demonstrate the scholars’ keen awareness of ongoing market changes. In terms of institutional development, Liu Shuangzhou, Dean of the School of Culture and Media at the Central University of Finance and Economics (Beijing, China), presented his research on three main aspects: multidirectional transformation trends in the international art market, the performance of the Chinese market, and the governance of the art market. His research reveals emerging consumption scenarios and hotspots in the art market, leading to

innovative business development. Moreover, the objects and participants of art asset management are undergoing structural transformations, with the emergence of a new generation of collectors shaping the market. The global art market is increasingly characterized by diversification and multipolarity, with China driving the development of the Asian region. China’s art market has entered a new phase of full competition, leading to shifts in art market values, including a greater focus on customer needs and an emphasis on new technologies. China’s art market system is undergoing a positive transformation in terms of form, structure, capital, value, and function. Based on changes in both the international and Chinese art markets, Liu offered insights into how governance can adapt to these shifts. First, he advocates for a transformation from the traditional regulatory model to a social company model. Second, he suggests expanding the scope of governance beyond the market to include creation, cultural security, etc. Finally, he emphasizes the need to establish industry credit, foster self-awareness within the industry on top of the regulatory mechanism, and promote a collaborative governance model involving various social stakeholders.

The current global art market exhibits greater diversification, from geographical reach to cultural narratives. Research has increasingly focused on emerging markets beyond the traditional ones, with scholars exploring the renewal and expansion of perspectives on the global art market. Svetlana Kharchenkova, an Assistant Professor at Leiden University (Netherlands), conducted a study on the globalization phenomenon of Chinese contemporary private art museums. She gathered data on exhibitions and artists’ birthplaces from 19 private art museums in China. Her findings reveal a significant trend of regional art mobility within China, with works by foreign artists entering both the Chinese public sphere and academic research through private galleries. The study concludes that private galleries play not only a role in the pricing of artworks but also an influential part in the process of cultural globalization.

Adelaide Duarte, a researcher at the Institute of Art History of the Universidade Nova de Lisboa (Portugal), presented a paper titled “Researching Art Markets in the Global South,” which addresses regions historically marginalized in dominant narratives. Using the Portuguese art market as a case study, Duarte examined the ongoing transformation driven by the internationalization of the national galleries’ exhibition practices. This shift can be observed in the growing artistic dialog between established art centers and marginal markets. In the post-pandemic period, cities have also developed rich private cultural infrastructures and activities. The Portuguese market serves

as an example of the unique momentum currently shaping some non-central art markets, while new connections are emerging between different regions. Duarte suggests that the study of global art markets should integrate both local and global perspectives to better understand these emerging transformations.

5. Cutting edge innovation: Market strategies for technology convergence

The intersection of technology and art is transforming the art ecosystem. Digital art, NFTs, and other emerging technologies are creating new opportunities in the art market. These innovations have not only provided artists with novel creative tools and enriched the ways in which artworks are traded but have also facilitated the assetization of art, thereby enhancing its financial attributes and investment potential. The application of blockchain, NFTs, and other technologies has increased the transparency, liquidity, and investment appeal of the art market, further driving its globalization. However, the nascent digital art market faces challenges related to its economic value and legal uncertainties, causing cautiousness among investors in the NFT market. Legal disputes concerning digital art and artificial intelligence-generated art have also become more frequent, indicating market instability. In light of the potential industrial transformation brought about by technology, both art market participants and academic researchers must closely monitor the industry, assess risks, and provide guidance for the sustainable development of the art market in the digital age.

Young scholars have begun exploring the intersection of NFT technology with art, focusing on the application of NFT in the art world. Regulatory requirements vary across different countries, which influence how NFTs are applied and their economic impact. Tian Zhongbo, a master's student at New York University, United States, has investigated the application and development of art resale rights within the context of blockchain technology. Blockchain facilitates new ways of artwork reproduction, distribution, and verification, tracking ownership transfers through smart contracts and integrating decentralized applications to automate transactions and manage resale rights. This process ensures that creators benefit from subsequent sales. In addition, research in China is exploring the potential applications of blockchain in the art market, aiming to understand the digital transformation of the sector.

Criticism of the alienation caused by technology is also gaining attention in scholarly research. Amid the fluctuations of the NFT art market, it is crucial to consider the sustainability of the art market and the associated

economic and ethical concerns. There is a need to look beyond the art market itself and examine digital technology in the broader context of cultural transformation. Cui Xiaoxuan, a doctoral student at the Communication University of China, presented "The complicity between media and consumerism: The value logic and dilemma of NFT virtual garment." This presentation discussed the digital transformation of traditional physical fashion through the concept of the metaverse. Virtual fashion technology encourages professional innovation, and when combined with NFTs, it ensures the uniqueness and marketability of virtual fashion items. This not only expands their usage scenarios but also provides various consumer values, such as collectability, investment potential, and social status. However, concerns about superficial cultural imitations, visual ethics, and dissolution of subjectivity through technological means are becoming increasingly prominent. It is especially urgent to establish a fashion discourse system with Chinese characteristics that both respond to the social demands of virtual fashion consumption and uphold cultural ethics, humanistic values, and the social significance of intellectual property innovation. Moreover, the multi-dimensional construction of traditional Chinese dress and modern fashion, guided by spiritual needs, must be explored to sustain a subjective cultural narrative in the context of global integration, thus continuing the historical lineage.

Turning to the history of NFTs, Ma Xian, a doctoral student at the School of Art at Nanjing University (China), has reviewed the development of the NFT art market. Factors contributing to the current underperformance of the NFT art market include the difficulty in valuing artworks due to the proliferation of homogenized works, damage to market credibility from fake and low-quality projects, and the cyclical nature of the market. Discussions surrounding NFTs are shifting from short-term speculation toward a greater focus on their practical applications and long-term potential in the art market. As the NFT sector matures, participants must adopt more agile thinking and actions, embracing the uncertainty that accompanies emerging markets. In the NFT market, the role of investors is more pronounced than in traditional art markets, and analyzing the development of the NFT market allows for a deeper understanding of speculative behaviors and the mechanisms behind the generation of value in this new digital space.

6. Cultural narratives: Identity and legal affirmation

Globalization has facilitated increased artistic exchanges and collaboration across different regions. However, there

is a growing concern about the unequal representation and discussion of art from various countries and regions in global interactions. Although the current global art market emphasizes cultural diversity and equality, and cultural scholars have engaged in discussions about affirmative action, relevant research has yet to adequately address this broader issue of equality.

While current art market research focuses on affirmative discourse, key questions of equality remain unanswered: Is the struggle for art market discourse a dynamic process or an established structure? How to deconstruct it to build a more effective market mechanism? The research of three master's students from the School of Art Administration and Education at CAFA offers some insight into these questions.

Lv's research discussed the concept of "narrative reconstruction" in the art market, which involves shaping historical narratives by accumulating original materials. This approach, when combined with the specific context of art market research in China, can offer multiple narratives that engage market participants in a more proactive and equitable manner. Moreover, literature can also provide a more universal framework for global art market history research. Qiu's research, titled "Relational commodities and identity: Intercultural landscapes as a form of participatory tourism – The case of the Cairns Aboriginal Art Fair," stemmed from her experience working at the Waradah Center for Aboriginal Art. Her study examined the relationship between relational commodities and identity, focusing on how Aboriginal art has evolved through commercialization and internationalization. Using the Cairns Aboriginal Art Fair as a primary case study, Qiu identified the fair as an authoritative space for the legal sale of Aboriginal art, as well as a social venue for engagement with diverse cultural backgrounds. This participatory model of cultural tourism offers visitors an in-depth understanding of Aboriginal culture while simultaneously providing a means for Aboriginal people to assert their identity.

Li's research focused on the correlation between major manifestations of the 19th-century British art market and class transformation. In the era of during the rise of the emerging middle class, the Agnew family, as art dealers, played a pivotal role in shaping collectors' tastes, establishing cultural prestige, and facilitating auction transactions. They helped create a thriving art-consumption culture with this new class. In addition, the Agnew family actively contributed to the cultural development of the city, thereby expanding their influence.

The issue of cultural equality has long been a concern in the art market, and in-depth reflection on the cross-

cultural relationship between equality and power has significant implications for cultural construction, market dissemination, and communication. Cultural equality is often discussed in conjunction with issues of imperialism and cultural colonization, which have caused imbalances in the global art market. During globalization, some countries have adopted protectionist measures, raising questions about whether globalization has had a positive effect on the promotion of cultural equality and pluralism.

Wu Mengyang, a doctoral student at the Chinese Academy of Social Sciences (Beijing, China), presented a talk on "Global art market and cultural equality from the perspective of cultural heritage law." According to global art market statistics, the distribution of transaction values among countries remains stable, indicating that the international art market is still highly localized. The flow of artworks in the global market sustains the cultural dominance of the dominant class, which may appear "fair" but is, in reality, a hidden form of inequality. Wu advocates for promoting cultural diversity and breaking the dichotomy within the international art market by revisiting the concept of cultural heritage law and related cases in the development of international art law. He suggested that strengthening cultural power within the framework of human rights law could offer a potential path toward institutionalizing equality in the global art market.

Ji Ran, a doctoral student at the School of Humanities, CAFA, presented "Facing the crisis of French contemporary art: The establishment and reform of foundations in France," focusing on the development and transformation of France's social fund system. Since the beginning of the 21st century, the French social fund has grown significantly, with La loi Aillagon serving as a landmark regulation in France's art and culture sponsorship system. This regulation played a key role in addressing the "crisis" facing French contemporary art by stimulating greater social involvement in the development of culture and the arts. Ji's study examined the respective advantages and limitations of government and social funding through a comparative analysis with the French Regional Contemporary Art Fund system, created by Jack Lang. The study revealed that, under La loi Aillagon, the distribution of foundations in France remains somewhat monocentric, while the French Regional Contemporary Art Fund system has helped democratize culture to some extent. Ji also explored the reasons why these two models have alternated in France's cultural concept.

Art law is a crucial issue in the art market, and artists must understand both the scope and limitations of the law. Future research can offer more practical recommendations and use legal issues to reflect on how to construct and

develop the art market more positively after regulation. Zhou Chen, a master's student from the School of Arts Administration and Education at CAFA, focused on the article "Legal analysis of the risks of art exhibition contracts from the perspective of international law." The article highlighted common disputes that arise in international art exhibitions due to their transnational, multi-party, and complex nature. Zhou emphasized the significance of having written contracts in international exchanges and stressed the importance of decision-making regarding the choice of jurisdiction and the application of law within the contract's terms. The timing of the delivery of works should be carefully considered in the payment process, and the exhibition schedule should be planned according to each country's judicial seizure exemptions.

7. Transactions and circulations: Information in objects

Circulation is a key concept in art market research. By examining the flow and exchange of artworks, researchers can gain a more comprehensive understanding of the channels and networks that constitute the art market. This perspective not only reveals the internal workings of the art market but also highlights the significance of art circulation in broader contexts. In the study of globalization, the transnational circulation of artworks raises issues of acceptance and identity, as well as the diversity of esthetic interests across different countries. The flow of art objects carries valuable market information, and related research offers a perspective for understanding the dynamics and relations between regions and the international arena by describing the movement of cultural relics and artworks.

Gou Chongzhi, a doctoral student from the School of Humanities at CAFA, discussed John M. Crawford Jr., a Chinese art collector in the United States. Gou analyzed the structure of Crawford's collection based on the list of paintings and calligraphies he donated to the Metropolitan Museum of Art in 1984. Crawford was the first Western collector to focus on calligraphy within his collection. Chongzhi also highlighted issues in Crawford's collection, including its narrow focus, the high degree of homogenization, and questionable authenticity.

Wang Shaojie, a doctoral student from the Academy of Arts and Design at Tsinghua University, focused on the history of the circulation of *The Thirteen Emperors* in Japan before it entered the collection of the Museum of Fine Arts, Boston. Wang discussed how Japan acted as a transit point for Chinese art from overseas, serving as an "Asian counter" rather than being the final destination for Chinese artworks. He also explored the differing approaches

to art appreciation between Western and Japanese scholars, noting that Western scholars tend to emphasize sociological and historical values, while Japanese scholars prioritize literary and spiritual values.

Zhang Fanyu, a doctoral student at the University of Nottingham (United Kingdom), presented a research paper titled "A free port as a hub in the global art world: A case study of Shanghai Art Free Port." Zhang's paper discussed the unique role of art-free ports in China, particularly focusing on the Shanghai Free Port. He explained that this free port occupies a pivotal position in the art ecosystem and highlighted security issues arising from its confidentiality and transaction opacity. Zhang also noted that, in recent years, the Shanghai Freeport has improved its economic efficiency, with relevant tax concessions further promoting the growth of the art market in Shanghai.

Building on the central theme of trading and circulation of objects in art market studies, scholars have examined the market through historical evidence. Gu Yun, an Associate Professor at CAFA, presented research on the history of art collections in Nanxun, Zhejiang, in the 20th century. Her paper explains how the rise of the merchant class and the decline of the traditional Chinese social system led to the development of a unique art collection in Nanxun. Key figures from the Nanxun gentry and merchant families played a significant role in this phenomenon. In the aftermath of the Second Opium War and the fall of the Qing dynasty, numerous Chinese cultural relics entered the market, profoundly influencing the overseas collection of Chinese cultural heritage. The Nanxun area played a vital role in facilitating the global flow of Chinese art and cultural relics.

Scholars also examined the fate and circulation of private collections from a global perspective, while exploring the transformation of art collectors and market institutions beyond their traditional roles in the process of globalization. Georgina Walker, a Teaching Associate at the University of Melbourne, discussed how contemporary art collectors are reshaping the future of their collections and their cultural reputations in her paper "From here to eternity: The rise and fall of global art worlds and the contemporary private museum." She noted that a considerable number of private collections ultimately find a home in private art museums, although only a few collectors can balance the financial and time constraints required to build and maintain such collections. The paper described the activities and challenges faced by private art museums and collectors in regions such as Germany, China, and the Middle East. Some collectors opted to place their artworks on long-term loans or collaborate with museums, international art institutions, and universities

to display their collections. The role of private collectors and art institutions in cultural diplomacy and global art networks has grown, reflecting a shift beyond their traditional roles as contemporary artworks from various regions become part of international cultural programs, including loans and sales.

8. Market methodology: Price as the key

Price is a key component of market research. With the advancement of information technology, digital archiving has become widely used, and art market databases have been established, providing a vital foundation for studying both the history and current state of the art market. Research tools and service providers for art prices have become a driving force in the globalization of the art market. Professional art market data services have improved market transparency, reduced information asymmetry between cross-regional markets, and fostered the convergence of tastes between emerging markets and major Western art markets. Through global data and information communication, a global art circulation system has begun to take shape. Current research on art market prices has led to the development of multiple research paradigms. In historical research, price remains an important indicator for mapping the historical trajectory and development of the art market, providing a micro-level perspective on its evolution. In contemporary research, scholars worldwide are examining the relationship between art price and art value, particularly how this relationship is influenced by societal changes. They seek to explore the logic behind the contemporary value of artworks.

The paper, “The price of art: A study of China’s art market from a value-driven perspective” by Wang Ziqi, an Associate Professor at CAFA, does not directly analyze the art market quotations. Instead, it offers a structural perspective on the study of the art market. Wang emphasized the need to reassess traditional understandings of value within the art market, particularly in the context of the diverse social structures and values attached to different artworks. She argued for an explanatory framework that can both respond to historical developments and shed light on the future. This framework would contribute to the study of the structure and technology of the Chinese art market, including the evolution of the art market, the role of the auction houses, and the impact of social and technological changes on art market paradigms.

Nathalie Moureau, a Professor at the *Paul Valéry* University Montpellier 3, presented her research on “Artistic and economic value(s): How are they influenced by digital

communication?” Her work addressed the relationship between the economic (price) and artistic (quality) value of artworks, raising critical questions about the gap between market prices and artistic recognition. With the rise of social media, Moureau examined the role of digital information in the art market, emphasizing its importance in signaling and influencing the recognition of artists and their work. Her research also uncovered a hierarchy between artistic and economic value, highlighting the need to distinguish between authentic art information and market noise, and to promote the dissemination of “real” art information.

The study of primary sources has become a significant focus of art market history research in recent years. However, the challenge with this research method lies in obtaining reliable data and interpreting it accurately, when the original materials themselves may contain errors. Xin Yu of the Hubei Academy of Fine Arts, in his article “A price study of the Armory Show in New York in 1913,” analyzed 762 exhibition transaction prices from the 1913 Armory shown in New York. He examined the transitional phase during which the art market shifted its center from Paris to New York and traced the dissemination of European modern art in the United States. Price studies, such as this one, provide a corrective framework for scholars’ observations of the art market, highlighting the importance of vigilance in assessing the authenticity and accuracy of textual accounts of art transactions.

Digital humanities have increasingly garnered attention in art market research, thanks to the advent of new technologies. Zeng Da, a lecturer at the Capital Normal University, presented his research on the post-war art market in the United States. He employed a digital humanities approach to conduct a comprehensive study of the spatial distribution of the art market in Manhattan, New York, using ArcGIS and Gephi software. The study revealed the geographic range of the art market, including artists and dealers, and correlated it with historical stages. Zeng also analyzed the core characteristics of collectors using a database of 613 art collectors. By applying a matrix of relationships between collectors, the study developed a clearer understanding of the collector landscape in the United States during the latter half of the 20th century. By integrating digital humanities into an interdisciplinary research approach, this study uncovered previously overlooked aspects of the art market and provided a broader understanding of its historical evolution.

9. Conclusion

In the post-pandemic era, the globalization of art market research has progressed alongside the development

of information technology and the emerging trend of cultural and technological integration. This year's forum, themed "re-globalization," explored the distinct issues and observable trends in the current art market within the context of its striking and rapid development. Scholars from various countries analyzed regional dynamics from a global perspective, focusing on both the integration and fragmentation of the global market. They emphasized the processes involved in the construction and circulation of art market centers and non-centers. The analysis addressed geographic, economic, and cultural relations, as well as the roles and influence of institutions, individuals, and other subjective roles. In the context of globalization and cultural plurality, scholars' studies highlighted concerns about the identity of market participants, the imbalance in the discourse surrounding the construction of equality, and the cooperation and tensions inherent in the globalization of the art market. The forum also discussed the application of emerging tools and interdisciplinary research methods, advocating for conclusions to be drawn through a research logic that integrates both humanistic and scientific approaches, thereby expanding the disciplinary scope of art market research. At the same time, while historical and contemporary texts must serve as foundational sources, they must also be examined dialectically, establishing scientific and rigorous research norms that facilitate creative research outcomes.

The topics addressed at the forum reflected the multifaceted nature of the art market research, offering perspectives and methodologies for guiding both current and future directions in the field. The forum also showcased cutting-edge academic contributions to art market research, demonstrating the active participation of scholars from diverse fields and underscoring the convergence of domestic and international theoretical and practical explorations of the art market. The global art market has always been in a state of flux, and the Chinese art market is also experiencing changes in external dynamics and internal structural adjustments, making global dialogs particularly significant during this process. The art market is closely connected to artistic creation and productivity, while also reflecting new social needs and technological integration. Its structure, mechanism, services, and functions continue to evolve through ongoing exploration and innovation. It is hoped that the promotion of cross-regional cooperation mechanisms for art market research will strengthen the integration of academic inquiry and practical application, thereby providing academic support for the sustainable development of the art market.

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ARTICLE

Business models transformation in the creative industries: Performing arts organizations in the post-COVID era

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Abstract

Rapid changes in the business models (BMs) of cultural and creative industries (CCIs) have occurred recently, owing largely to the dynamics accelerated by the COVID-19 pandemic and technological evolution, which have resulted in a strong interconnection between social, cultural, and digital challenges. The present research highlights the main changes that the COVID-19 pandemic has brought to the BM of 12 Italian performing arts organizations using a mixed research methodology (qualitative and quantitative) carried out through semi-structured interviews, a strengths, weaknesses, opportunities, and threats analysis, and an analysis of the economic-financial data of the organizations involved. The paper presents the study's main findings and contrasts them with some recent scientific research on BM, allowing for comparison and debate on significant issues developed (new technologies and social and environmental impact). The uniqueness of the approach employed in this research lies in recognizing these characteristics, particularly the challenges of sustainability, as critical in producing value for CCI.

Keywords: Business models; Performing arts organizations; Cultural and creative industries; Sustainability

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1. Introduction

The COVID-19 pandemic triggered both indirect and drastic changes in businesses, notably in the creative sectors. These changes had a tremendous impact, particularly on performing arts organizations (PAOs), which were forced to suspend activities for a prolonged period due to theater closures. The subsequent reopening of performing arts venues posed significant challenges for the theater and dance industries, largely because they had to adjust their spaces to comply with regulations that were difficult to implement within facilities that were not necessarily built in a canonical fashion (with stalls, a stage, a proscenium, and a double entrance and exit system). Furthermore, the same internal organizational structure of creative firms exposed its flaws, exposing its weakness in the face of a crisis that highlighted the necessity for organized staff in important areas such as management and external communication.

This research aimed to highlight the challenges faced by 12 PAOs operating in Italy that were forced to halt operations due to the COVID-19 pandemic. These organizations

were involved in two different projects organized by Ca' Foscari University, financed with regional funds and intended to support the economic revitalization of the sector. These organizations, based in different areas of the Veneto region (Padua, Venice, Belluno, Treviso), voluntarily chose to join the projects, which included financing for capital goods and the opportunity to attend training courses and receive targeted advice. In this scenario, the purpose of this review was twofold: on the one hand, to support these organizations in resuming their activities, and on the other, to utilize the opportunity to undertake research analyzing the influence of the pandemic on their organizational structures. Despite the fact that various studies have been conducted on the pandemic and, in general, on the PAO sector,¹ there is a lack of empirical proof showing how the COVID-19 period induced a major alteration, both positive and negative, on the cultural and creative industries (CCIs), and in particular, on the PAOs. The most visible outcome of the research was the changes observed in the organizational structures of the PAOs under examination, specifically in their business model (BM).

The purpose of this paper is to describe the major findings of the research conducted on the PAOs examined, highlighting the substantial changes that happened in their various BMs during the COVID-19 pandemic. One of the most significant findings from the research is that PAOs are increasingly focusing on environmental sustainability issues.

Certainly, CCIs have always had a privileged relationship with issues related to social aspects, but this profound focus on green issues represents, in my opinion, an important turning point in the way PAOs carry out their activities. It changes the way they approach their territory and community, improves air quality, and raises awareness of social welfare issues.

From this standpoint, it is vital to investigate sustainable BMs as a new framework within which to interpret the phenomenon of PAOs and, subsequently, CCIs. This article will first look at the primary theoretical underpinning for sustainable BM, followed by an introduction to the broader topic of BMs within CCIs. The research methodology used will then be outlined, as well as the main alterations that allowed the analyzed PAOs to cope with the pandemic and remain in the market.

Finally, the results obtained using the BM Canvas will be compared to models specifically developed for CCIs, with the goal of defining a sustainable BM for PAOs that is recognizable from a non-industrial perspective while also adaptable to non-profit realities.

2. Theoretical background

2.1. Sustainable BMs

A BM is a collection of features that indicate how an economic venture generates, transmits, and collects economic value for its benefit. As a consequence, it organically displays the contents of a company concept while also diving into the real capacity to produce value in a properly organized way. The BM Canvas tool² enables you to objectively define how a company generates and distributes value to a specified target market while collecting enough value to achieve profitability objectives. When considering CCIs, it is vital to conduct a BM study that considers both sustainability goals and the major societal effect they might have on the environment.

Recent research³ has thoroughly reviewed the literature on sustainable BMs and highlighted their key qualities. In these models, sustainability principles drive the organization and its decision-making process, transforming rather than supplementing the company's dominant neoclassical model by integrating social and environmental considerations.⁴ Sustainable BMs consider the global market, taking into consideration the growth of newly industrialized nations and the increasing demand for sustainable products and services.⁵ They provide social and cultural value for clients by combining community, environmental, cultural, and commercial operations,⁶ aiming to provide more than just economic value to a larger group of stakeholders.⁷

According to Boons and Lüdeke-Freund,⁸ a sustainable BM differs from a conventional one in four ways: first, the value proposition provides measurable ecological and/or social value in addition to economic value; second, the supply chain involves providers who take responsibility for their stakeholders as well as those of the focal company; and third, the customer interface motivates clients to take responsibility for their consumption and that of the focal company. Based on these assumptions, the company's financial model represents a fair distribution of economic costs and reward among the BM's participants, as well as the ecological, social, and cultural repercussions on the area. It contributes to meeting sustainability objectives such as resource efficiency and social relevance.⁹

A (strongly) sustainable BM is defined as the process by which a company determines the appropriate inputs, resource flows, and value decisions, as well as its role in ecosystems, for sustainability measures, i.e., indicators that assess the outcomes and effects of BM decisions, to be considered successful.¹⁰ It incorporates sustainability into the company's value proposition and value development processes, ultimately benefitting consumers, the environment, and society.¹¹ Therefore, it is a simplified portrayal of

the elements, their interrelationships, and stakeholder interactions that an organizational unit employs to generate, deliver, collect, and exchange long-term value for and in partnership with a broad set of stakeholders.¹²

Evans *et al.*¹³ describe sustainable BMs using five propositions: sustainable value incorporates economic, social, and environmental benefits as forms of value; it also establishes a system of sustainable value streams among multiple stakeholders, including the natural environment and society; and, finally, it is capable of generating a value network with new purpose, design, and governance. Finally, enhancing externality internalization through product-service systems has the potential to drive value chain innovation.

According to previous research,³ sustainable BM innovation is defined as the development and execution of sustainable BM. This might entail developing entirely new BMs, expanding into other BMs, acquiring new BMs, or switching from one BM to another. According to the provided definitions, the sustainable BM is a variation of the standard BM idea with certain extra aims, such as adopting sustainability concepts and principles and integrating them into the notion of value (e.g., in value creation, value capture mechanisms, etc.).

The key hurdles for innovation toward sustainable BMs have been recognized,³ especially in the following areas:

- (i) Triple bottom line: The co-creation of revenues, social and environmental benefits, and their balance is a test for shifting to sustainable BMs^{4,6,14}
- (ii) Mindset: Corporate rules, standards, behavioral norms, and performance measurements trump organizational attitudes, impeding the adoption of innovative BMs^{8,15,16}
- (iii) Resources: There is a reluctance to allocate and reconfigure resources and procedures for BM innovation¹⁷⁻¹⁹
- (iv) Technological innovation: Combining clean technology with BM innovation is multifaceted and difficult^{14,16,19}
- (v) External relations: Significant contact with external stakeholders and the business environment requires more work^{4,8,20}
- (vi) Methods and tools: Existing business modeling methods and tools, such as those established by Osterwalder and Pigneur,^{2,15} are limited and seldom focused on sustainability.^{17,21,22}

These research questions will be addressed in the development of this paper, with an emphasis on the dynamics underlying the transformation of sustainable BMs in the creative industries. The paper will highlight not only the stages of this evolution but also how the dissemination of cultural, social, and environmental value is at the heart of this innovative dynamic.

2.2. BMs in CCIs after the pandemic of COVID-19

The BMs of cultural and creative sectors reflect the influence of organizational transformation. As we will see, these transformations represent the desires and demands for a long-term organizational form, as a consequence of a focus on social and environmental concerns, as well as a special corporate structure geared toward having a beneficial influence on the outside world. Although there are relevant studies on BMs and the use of the BM Canvas as a tool to capture the essence of a company's value, there is a lack of specific research that can highlight the changes occurring in the BMs of CCIs, specifically as a result of the COVID-19 pandemic's impact and the subsequent transformations within these organizations. As a result, this study will concentrate on examining a few firms to better understand their status during the COVID-19 era and how the pandemic influenced their organizational decisions and business strategies.

3. Data and methods

3.1. The purpose and research tasks

The unique characteristics of the CCIs necessitate an adaptation of the traditional BM concept, as these sectors often appear poorly structured from a business organizational standpoint and are primarily composed of non-profit organizations with legal associative forms. As a result, a simple commercial logic cannot be used in this sector, just as no one BM can be applied to all categories within CCIs. This suggests that a typical BM is more commonly found in more commercial creative businesses (the profit sector), such as gaming, publishing, and film production. In recent times, the pandemic has accelerated changes in the BMs of CCIs, driven mostly by technological growth, which has led to strong connectivity between social, cultural, and digital difficulties. Digitalization is changing the way individuals engage with culture, creating new economic models and mandating the acquisition of new skills.²³

The BMs of the cultural sector must enable companies to convey a coherent story about who their consumers are, what value and revenue they can generate from their activities, and what value they can collect for their organization. This permits BMs to be used as organizational thinking tools that clearly express what a certain organization plans to achieve, what it wishes to offer, and the connections that will arise from attaining the suggested objectives. BMs do not have to be focused solely on economic return, but rather on creating value (including financial, social, and environmental value). In the case of non-profit organizations, additional tools such as the balanced scorecard and the social returns-on-investment indicator are important examples.

The pandemic has heightened the need for the heritage and tourism industries to become more resilient, sustainable, and entrepreneurial, for example, by implementing new strategies, hybrid financial plans, and risk assessment and management techniques. In many circumstances, novel economic and financial models might help in this area. Reduced public financing, globalization problems, digital potential, and growing public empowerment have all driven the CCIs to try new techniques and BMs. Today, particularly in the European context, there is an ongoing need for innovation in heritage valorization, particularly in BM innovation, to develop a solid and transparent pipeline of economically and socially sustainable investment projects that demonstrate the sector’s attractiveness to private investors. These unique ideas have the potential to significantly boost cultural diversity, entrepreneurship, growth, employment, and social inclusion.

The following are key considerations in light of the pandemic:

- (i) The transition from analog to digital: New intermediates (e.g., iTunes, Facebook) and business platforms (e.g., streaming). As a result, to effectively capitalize on these prospects, the creative industries must develop both digital skills and the requisite technological infrastructure²⁴
- (ii) Digitization and shifts in consumer behavior: Digitization has led to a shift in consumer behavior, with self-publishing and user-generated material becoming common (e.g., videos, blogs, forums, podcasts, social media, photography, e-books, etc.). This digitalization²⁵ has created chances to reshape the connection between producers and consumers in ways that may have an influence on the status of creativity and creative behavior in general (e.g., diluting the quality criteria of cultural goods)
- (iii) Financial sustainability in cultural organizations: Many governmental and non-profit organizations, as well as private projects, strive for financial sustainability (e.g., through crowdsourcing activities and online platforms). Many historical conservation programs are quite expensive and need substantial financing. As a result, several museums have launched internationalization methods (e.g., co-production, co-organization, exhibition export) to boost income by cutting production costs
- (iv) Co-working spaces and innovation laboratories: Examples include innovation laboratories, start-ups, incubators, and event-specific temporary laboratories. Innovation laboratories, for example, represent grassroots practices in urban settings, as well as architecture- and technology-based partnerships that offer novel ways of co-creating creative material.

These assumptions serve as the framework for the present study, which seeks to investigate the cultural and creative sectors, notably the performing arts, to better understand the changes in their economic models. To achieve this research goal, the Ca’ Foscari University of Venice analyzed and involved 12 theater and dance organizations operating in Italy’s Veneto region in two separate projects, the CAD Project and the APPRODI Project, in 2021, both dedicated to the relaunch of the performing arts sector following the pandemic.

3.2. Research methodology

The research methodology aimed to validate changes in the organizational structure and value chain of cultural organizations, as well as to assess their influence on different BMs. Finally, an attempt was made to uncover features that were shared by all firms to determine which components of the BMs had changed and transformed across all creative sectors examined. Obviously, not every organization reacted the same way. Thus, mapping variety was crucial in identifying sites of convergence in activities that contribute to the development of economic and cultural value. The following methodologies were used to determine the BMs of the firms involved:

- (i) In-depth interviews: Diverse members of the industry commented on important features of the organizational structure to define its current status
- (ii) Strengths, weaknesses, opportunities, and threats (SWOT) analysis: Corporations recognized internal strengths and problems, as well as suggested solutions to address them
- (iii) Analysis of firm statistics: This included examining production, turnover, balance sheet, and social balance sheets. The research project lasted about a year and attempted to involve all of the company’s staff (from top management to the artistic direction, actors, directors, and dancers).

In-depth interviews (Table 1) were conducted to gain a deeper understanding of the companies in question. This technique was deemed the most effective for gathering

Table 1. Semi-structured interviews

In-depth interview	Analyzed aspects
Number of organizations: 12	1. Organization 2. Main stakeholders 3. Year of Foundation 4. Legal nature 5. Main activities 6. A brief history of the organization 7. Mission 8. Vision 9. Identity aspects and artistic poetics 10. Innovation and research

information on the organizational characteristics of PAOs. Interviews were conducted both online and on the premises of interviewees. Each PAO participated in multiple interviews (approximately three), each lasting 2 h. Purposive theoretical sampling was adopted in this study, as advised by qualitative research practice,²⁶ because the participants selected for the study were directly affected by the phenomenon under examination. In this scenario, the participants were perfectly competent to provide a detailed understanding of the phenomenon.

In this situation, the sample size was fixed: all 12 organizations involved in the two initiatives were questioned. Theoretical saturation (the moment at which no new categories, concepts, dimensions, or episodes develop during the research process) specifies when the study could be regarded as complete, as all researched categories had been saturated. In this scenario, saturation occurred after the second interview. The third interview served to validate concepts and classifications. The interviews were transcribed and categorized using the open bone coding technique, which identifies categories based on the study’s aims and interview protocol. The factors evaluated included the organization, its primary stakeholders, the year it was founded, its legal nature, its principal operations, a brief history of the organization, its purpose, vision, identity aspects, creative poetics, innovation, and research. In this scenario, all of the important corporate leaders were invited to participate, and they provided their insights and comments on the given themes. Every effort was made to ensure that all participants agreed on what was stated on the many themes covered by the open-ended questions.

To conduct the SWOT analysis, however, the resources delegated to respond to the specific aspects examined were called upon: for example, in terms of economic sustainability, those responsible for accounting and administration answered the questions and reflections, as did those responsible for production and distribution, as well as area managers, among others. The purpose was to gather detailed information on the issues being investigated, as indicated in Table 2. Clearly, the SWOT analysis, as a static analysis model, provides information

Table 2. SWOT analysis

SWOT analysis	Analyzed aspects
Number of organizations: 12	<ol style="list-style-type: none"> 1. Economic sustainability 2. Production and distribution 3. Innovation, research, and development 4. Human resources 5. Public relations 6. Marketing and communication 7. Social responsibility

Abbreviation: SWOT: Strengths, weaknesses, opportunities, and threats.

that is only valid at the moment of observation and must be updated on a regular basis. This is certainly one of the model’s significant shortcomings, as it only allowed us to grasp the organizations’ situations as “photographed” during the interviews.

The interview data were subsequently transcribed in a less discursive manner and summarized in a strategy document named “Revitalization Plan,” as the research’s objective was not just scientific but also to aid the PAOs surveyed in overcoming the pandemic. The SWOT analysis revealed important concerns and a plan was then suggested to solve them. This tool was tremendously useful in understanding the company’s structure and the modifications that were in effect at the time of the research. The findings of the semi-structured interviews and the SWOT analysis (one for each firm) were then compared to the quantitative data required (Table 3).

Some data on the organizational structure of the 12 PAOs are summarized in Table 4.

Table 3. Quantitative data required from organizations

Category	Detail
Production	<ul style="list-style-type: none"> • Productions per year • Number of performances per year • Costs of realization • Location • Receipts per show • Annual receipts
Activities	<ul style="list-style-type: none"> • Other activities per year • Type of activity • Costs of realization • Members/participants • Location • Annual receipts and per activity
Relation system	<ul style="list-style-type: none"> • Spectators/clients/suppliers • Annual number • Type of customer • Type of supplier • Partners • Other
Revenues	<ul style="list-style-type: none"> • Turnover per year • Turnover from own productions • Turnover from other activities • Total turnover
Other income	<ul style="list-style-type: none"> • Other income per year • Type of revenue • Type of activity carried out • Total revenue
Costs	<ul style="list-style-type: none"> • Costs per year • Fixed costs • Variable costs • Main cost items • Monthly costs • Total annual costs

Table 4. Main data about the 12 PAOs

PAO	Audience per year	Size (Number of employees)	Years of activity	Average number of performances per season
1	72,000	20	36	400
2	80	2	13	2
3	90	5	10	2
4	1,500	4	9	11
5	5,000	8	10	30
6	13,000	3	41	7
7	2,400	4	33	3
8	700	3	15	3
9	800	3	23	4
10	850	1	8	70
11	500	3	7	4
12	25,000	4	13	112

Abbreviation: PAO: Performing arts organizations.

As you can see, we are interacting with many varied organizations (all of them private). One of the factors that brought them together during the pandemic was the reduction in show production and attendance. Paradoxically, the longest-lived organizations suffered the most during the lockdown. Indeed, despite the partial reopening of Italian theaters and cinemas, these institutions were unable to reorganize and devise new ways to contact audiences and deliver their plays. In the following BM analysis, we will examine how these businesses attempted to re-enter the market and differentiate their activities (and earnings).

4. Results

4.1. BMs' overview

Each organization submitted internal data on production, other activities, reporting systems, revenues, other income, and costs. Externally relevant documents, such as financial statements, social reports, and sustainability reports, were also sought to corroborate and validate the data.

Pandemic-related measures did not replace others but rather augmented them by executing their consequences in some circumstances. As shown in [Table 5](#), relationships with universities and creative industries were strengthened, school programming was expanded, co-production projects with other theater companies were initiated, variable costs were increased while fixed costs were reduced, and technological solutions for audience participation in open-air spaces were developed. [Table 6](#) depicts how the dance organization under study tried to diversify its activities by growing its network of partners through participation in contemporary dance festivals. Furthermore, to fulfill

the pandemic's needs, it expanded its technological infrastructure, especially by acquiring high-tech gadgets for video shooting, editing, streaming, and amplification. It also attempted to improve its website by updating it with the most recent news.

The organization represented by the BM in [Table 7](#) is involved in contemporary dance and has begun to collaborate with public administrations and universities—institutions that have been less affected by the various lockdowns—to deal with the pandemic's severe economic and financial crisis. Furthermore, it initiated more design work and participation in public financing contests and tenders, decreased fixed expenses, and worked to broaden chances for partnerships with other businesses.

The BM depicted in [Table 8](#) indicates an increase in the organization's important partners, a rationalization of human resources (by hiring new people), a broadening of communication channels, and the use of external financing sources.

The business illustrated in [Table 9](#) experienced a transformation that comprised an expanded network of partners and consumers, increased financial and technical resources, enhanced external communication, and new cultural design initiatives.

[Table 10](#) illustrates how a theater company extended its partner network (including foundations, public agencies, and universities), enhanced its internal resources (especially human and technical), and implemented communication and planning strategies. Its website and social media presence are now necessary to reach a larger audience and effectively promote its activities, which include live concerts.

The theater and cinema organization included in [Table 11](#) implemented a plan to expand its school-based activities and volunteer network. It also incorporated new external communication channels, such as newsletters, websites, and social media, which had not previously been used.

[Table 12](#) indicates how a theater company's BM grew its network of partners and clients to include businesses, schools, government agencies, colleges, and festivals. Due to high fixed expenditures, the group was obliged to vacate its theatrical space and shift its operations to contractual facilities, gyms, schools, and creative residencies.

[Table 13](#) summarizes a BM marked by the expansion of the organization's network of partnerships (especially with colleges) and the development of new types of performances in unusual places (parks, forests, historical sites) using new technology.

Table 5. PAO No. 1: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, schools, universities, theater companies, creative industries , clients and partners, and suppliers.	Production and distribution of theater performances, programming of festivals for schools , and training activities.	Intellectual resources, human resources, financial and technical resources.	The organization aims to generate an inclusive environment of theatrical and artistic creation, which is a place for the elaboration of the collective present, for training emotional depth of cultural production, education, and promotion of beauty with a focus on the younger generations, to build new ethical scenarios.	Network of contacts with public administrations, artists and patrons, schools, and universities.	Co-productions , theater reviews, training courses, media, and website .	Clients and financiers , public bodies, schools and universities, partners , and end-users (main target segments: 3 – 19-year-olds and families).	Value-oriented business with high fixed costs and variable costs related to production and distribution.	Public financing and selling shows on the market.	The projects implemented use theater research as a methodology for the education of the younger generations, the valorization of cultural heritage, urban regeneration, community development, theater production accessible to disabilities, social inclusion, and the production of innovative theater devices .

Note: Pandemic-related measures are underlined in bold.
Abbreviation: PAO: Performing arts organizations.

Table 6. PAO No. 2: Dance sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Theater and dance companies, festivals , choreographers, and artists.	Theater production, short film and video production, and technical resources . workshops.	Intellectual resources, human resources, and technical resources .	The association aims to use art to talk about social issues in 360 degrees, developing a theater project that is the result of a human, relational, and social journey.	Network of personal contacts in the performance industry.	Website , training courses, word of mouth.	End-users, people with disabilities, linked to the progress of projects.	Value-oriented activity with variable costs linked to the progress of projects.	Fixed ticket price; external financing.	The organization has a high social impact in terms of involving spectators in disability-related issues. Art is used to communicate the emotionality linked to the body and the physical and psychological difficulties associated with situations of disadvantage and fragility. The work with disabled people demonstrates the company's great ability to be able to speak different languages and get involved. Technological experimentation in the field of video certainly offers the possibility of capturing a wider audience and making a sometimes-complex language more readable.

Note: Pandemic-related measures are underlined in bold.
Abbreviation: PAO: Performing arts organizations.

Table 7. PAO No. 3: Dance sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Dance schools, Choreographers and performers, Festivals, public administrations , and universities .	Dance education, workshops, and performances.	Intellectual, human, and technical resources.	The organization aims to create a network in continuous dialogue with contemporary dance realities and between schools operating in the same area.	Network of personal contacts, networks of relationships in the territory.	Dance schools, festivals, projects .	Festival, co-production partners, universities and research centers , public bodies , target audience: all ages (from 3 years to 70).	Value-oriented business with many variable costs and few fixed costs .	Participation in projects and organization of workshops.	The association has a strong impact on the territory of reference, contributing, through its performing actions, to the construction of a community that engages in dialogue on the same issues. The high degree of involvement offered by dance has, over time, created interactive spaces for sharing with local communities, which actively participate in the various workshops and laboratories organized, especially in green areas and city spaces.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 8. PAO No. 4: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, theater companies, schools , and universities .	Theater production, the artistic direction of the municipal theater, and cultural training activities.	Intellectual resources, human resources , and technical resources.	The organization aims to investigate the contamination between the arts with the need to create a pole that encompasses the conception, realization, and interaction of theatrical and video works. It, therefore, proposes to construct, through performance activities, an artistic and research pathway.	Network of contacts with municipalities, artists, and companies linked to direct festivals, and relations with schools and universities .	Festivals, training courses, media (radio and press), website .	Rassegna Belluno Miraggi: heterogeneous audience (from young to old). Festival Vertigini: target audience from 18 to 45 years. Productions: transversal audience but with a focus on those with specialist skills. Children's theater: audiences from 5 to 20 years of age.	Value-oriented activity with fixed structural costs and variable costs related to theatrical production and distribution.	Festival fees, fixed ticket prices, and external funding .	Development of cultural welfare actions linked to the enhancement of the territory. Facilitation of generational interchange realized through projects with communities. Urban regeneration actions linked to the recovery of Hangar11 where artistic and theatrical programming activities are carried out. Dialogue with citizenship through workshops and public debates. Construction of a community of reference thanks to the joint action of collaborators and volunteers who actively participate in the projects implemented by the company.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 9. PAO No. 5: Dance sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, partners , co-producers , and performing bodies and artistic festivals, universities , and research centers .	Production of contemporary dance performances and artistic projects.	Intellectual resources, human resources, financial and technical resources .	The organization aims to become a point of reference for the dissemination of emerging contemporary dance in the Veneto region. The main value offered lies in the creation of unity in diversity, i.e., the union of different poetics in a single structure.	Each artist has and cultivates his or her network of personal relationships built up through working contacts with producers, artistic directors, and companies.	Theater agents, external communication .	Principals and financiers Co-production partners, public bodies, Universities, research centers, and End users (Target groups of all ages, from 19-year-olds to those over 60 s).	Value-oriented business with many variable costs and few fixed costs.	Public financing, selling shows on the market, and projects .	The association has a strong impact in social terms on the local area and beyond, especially through its work with communities. Workshops and workshops are held with people of all ages, promoting intercultural and generational dialogue, acceptance of others and their differences, learning new languages, and respect for the environment and nature in general. The high cultural value promoted through the artistic language of dance makes it possible to recognize the acceptance of the self, respect for others, and awareness of one being in the world; universal values spread with simplicity and wisdom in the organization's development path.

Note: Pandemic-related measures are underlined in bold.
Abbreviation: PAO: Performing arts organizations.

Table 10. PAO No. 6: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Live performance networks, foundations , public administrations , theater companies, and universities .	Cultural training, organization of performances and festivals, theater production.	Intellectual resources, human resources , and technical resources .	The association aims to create convivial occasions to bring people closer to the theater, seen as an indispensable vehicle for personal and collective growth. It provides a physical space in which to do and see theater and an intellectual space for mutual growth and acceptance.	An extensive network of personal contacts in the theatrical and institutional sectors.	Website , social media , word of mouth, press, posters.	End users (over 40), children (3 – 8 years), public administrations , schools	Value-oriented business with many fixed structural costs.	Fixed price tickets; variable prices for project-related activities .	The organization has a high social impact in terms of involving citizens and carrying out activities related to civic welfare. Its strategic position in the context of the city of Padua also makes it a potential location for artistic and cultural-based regeneration. The work in prisons and with people with disabilities demonstrates the company's great ability to speak different languages and get involved. Technological experimentation in the field of streaming certainly offers the possibility of capturing a younger audience and making itself more easily accessible to different types of audiences.

Note: Pandemic-related measures are underlined in bold.
Abbreviation: PAO: Performing arts organizations.

Table 11. PAO No. 7: Cinema and theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Parish, public administrations, projection, suppliers, theater production companies, schools .	Film theater production (but not distribution), and music concerts.	Technical and physical resources, intellectual resources.	A unique experience of sharing, in a place conceived as a community space, capable of integrating cinema, theater, and music. The programming is aimed at enhancing the territory in a cultural key through artistic poetics accomplished reaching the public's sensitivity.	The main relationships are cultivated with the parish and its contacts, local associations, schools, and end users.	A parish volunteer network , word of mouth, website , social channels , and newsletter .	The audience is of all ages, thanks to a diverse program.	The costs are largely fixed structural costs (rent, utilities).	Revenues derive from cinema public tenders and ticketing.	One of the main added values is related to the building of a community of good practices around the parish and the cultural activities it provides. The sense of sociality that the Cinema Theater has been able to cultivate makes people aware of the cultural value of the facility and generates a sense of involvement and participation, which encourages citizens to spend themselves to carry out its main activities. The high technological contribution developed, especially in the theatrical field also makes the space open to experimentation and to an audience of all ages.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 12. PAO No. 8: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Schools, theater companies, festivals , universities , companies , public administrations , and suppliers .	Production of theater performances, training activities, and cultural projects for educational and social purposes.	Physical resources, intellectual resources, and human resources.	Producing artistic and educational content through the performing arts and active involvement of the territory and its people. Enhancement of social and political demands through art, which becomes a means of denunciation and empowerment concerning society's problems.	The main relationships are cultivated with schools, theater companies, universities , and companies .	Networking, institutional communication, social media, and web.	End users, schools, theater companies, and universities.	Value-oriented business, and many fixed costs , and few variable costs.	Educational activities and cultural projects.	The company is very attentive to social issues, which it addresses both in its theater performances and in its educational projects and activities, stimulating reflection and critical capacity, especially in younger age groups. Its activity is strongly oriented toward urban regeneration, as it can gather the instances of the territory and stimulate social cohesion. The use of different technological solutions allows it to increase the interactivity of its performances and stimulate the active participation of the spectator.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 13. PAO No. 9: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, schools, and universities.	Production of theater performances, cultural projects in non-theater venues, and theater workshops for children and companies.	Physical and technological resources , intellectual resources.	Doing theatrical research and experimentation on the intersection and synergy of expressive languages, ranging from music to performance to installation to video, outlines a poetic path that takes the form of theatrical productions aimed at both childhood and adult theater.	The main relationships are cultivated with schools, public administrations, and universities.	Reputation, press, media.	End-users, schools, Administrations, Theater organizations	Value-oriented business with many fixed costs and few variable costs.	Revenues from public funding and children's theater review.	Since its foundation, the organization has always been able to wisely disseminate artistic, cultural, and social values, which it has also disseminated through workshop activities. The company is attentive to major issues relating to the environment and society and is willing to take the lead in projects with high human value (activities in prisons, for example, or environmental awareness).

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

The organization that is the subject of the BM in [Table 14](#) faced significant financial challenges due to COVID-19, which nearly drove it out of existence. Despite these difficulties, it was able to continue its operations by seeking new sponsors, strengthening relationships with its clients, and strategically utilizing the web for the management of show bookings combined with dinners at the restaurant (its core business), as well as for promoting shows and live activities. Due to the significant fixed structural expenses, the venues were nearly continually closed during the duration of the pandemic (2020 – 2021).

[Table 15](#) demonstrates the streamlining of the BM of a theater company that, perhaps more than others, effectively avoided the challenges posed by COVID-19. It not only broadened its network but also developed beneficial working connections with museums and enterprises, bringing them into its network of partners, clients, and funders.

The final organization, as shown in [Table 16](#), has a BM characterized by new partnerships, primarily with private companies, an expansion of business services (public speaking, team building, and corporate theater courses), a strengthening of online and offline communication, and the elimination of fixed structural costs by decentralizing all activities.

As can be observed, there are several parallels and analogies between the techniques used by the CCIs in question and the subsequent growth of their BMs. These characteristics are described in [Table 17](#), which reflects a single BM that provides a thorough assessment of the major shifts that have impacted the individual firms studied.

The most significant aspects of the CCIs' sustainable BMs are the value proposition and the social, cultural, and environmental effects. As we can see, the creative sectors investigated base their value proposition on unconventionally conveying culturally relevant issues, developing new languages, and using locations other than traditional theaters. This great openness, certainly influenced by the pandemic period, brings the performing arts far closer to their audiences and the communities in which they live, breaking down the "fourth wall," which has been a focus of much experimental research in historical *avant-garde* theater. Furthermore, the social and environmental impact becomes more apparent, particularly when we consider organizations with roots in activities carried out in prisons, hospitals, or with a political background, in contact with vulnerable and sick people, and contexts permeated by strong social and racial concerns. Art, drama, and creativity may frequently be used to soothe and mend circumstances of severe anguish and disorientation. What should be emphasized

Table 14. PAO No. 10: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, theater companies, foundations, sponsors, and chefs/caterers.	Production of dinner theater shows musical performances, and corporate dinners.	Human resources, Intellectual resources.	To make the relationship between spectators and artists, between theater and people, special. Creating a bond that overcomes the current difficulties and makes the audience's presence constant, also thanks to research and experimentation with different languages.	Personal relations with end customers, theater companies, foundations, and sponsors. Reservation support through the web, social media, and telephone.	Word of mouth, social media, website, newsletter.	End users (Audience of all ages, especially 40 – 70 years old).	Value-driven business with high fixed costs.	Fixed prices for the theater+dinner formula.	The organization has implemented many social initiatives and promotes events and open-air festivals geared toward the dissemination of artistic and cultural values integrated with respect for the territory and the environment. It has initiated collaborations with organic product brands to promote physical well-being and environmental sustainability, especially with families and children (breakfasts at the theater).

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 15. PAO No. 11: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Public administrations, foundations, schools, universities, and companies.	Production of theater performances, cultural projects in non-theater venues, and theater workshops for children and companies.	Physical and technological resources, Intellectual resources.	Combining different artistic vocations to stimulate a kind of meta-narrative in different cultural venues in the area. Research on actor and space: the soul of the organization is the enhancement of the social and emotional aspects of the language of theater. The core business lies in the profound social vocation of the way of doing theater.	The main relationships are cultivated with schools, universities, and public administrations.	Website, reputation, and communication-related to non-theater venues.	End-users, schools, universities, and companies.	Value-oriented business with some fixed costs and many variable costs.	Revenues are dependent on funding budgets and/or individual cultural proposals offered.	The organization is very involved in projects on social issues concerning different areas (prison, racism, immigration, women's issues). The cultural activity takes place in non-theater venues (archeological sites, museums, historical centers), favoring the contamination of knowledge. The use of new technologies makes it possible to attract younger age groups and stimulate learning concerning cultural concepts that are not easy to assimilate.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 16. PAO No. 12: Theater sector

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Schools, universities, private companies, public institutions, associations and third sector entities, theater companies, and suppliers.	Performances, training, cultural events organization, business services.	Human resources, intellectual resources.	Cultural proposals are characterized by a dynamic, original, and exciting approach, based on reflection and the active involvement of the spectator in social and civil commitment issues.	Building networks and partnerships with stakeholders; dense web of relationships with institutional bodies.	A dedicated website for each sector of activity and external communication.	Theaters, theater companies, festivals, schools, private companies, institutions, universities, and end-users.	Value-oriented business with low fixed costs.	Variable price dependent on customer segment and product/service offered.	The cultural activity stimulates learning in the younger age group (school-age children) and reflection on social issues. The educational activity aims to engage the younger generation on topical issues with high-level content (road safety, sport, mythology, nature, art). The involvement of key stakeholders (such as research institutions and universities) makes it possible to create valuable networks in the area and to stimulate artistic research, especially in the area of higher education and related age groups.

Note: Pandemic-related measures are underlined in bold. Abbreviation: PAO: Performing arts organizations.

Table 17. Aggregated business models of performing arts organizations

Key partners	Key activities	Key resources	Value propositions	Customer relations	Channels	Customer segments	Cost structures	Revenue streams	Social, cultural, and environmental impact
Schools, universities, private companies, foundations, public institutions, third-sector associations and entities, theater companies, and suppliers.	Shows, digital and interactive performances, education courses, organization of cultural events, business services, and theater.	Human resources, digital and technical resources, financial and intellectual resources.	Cultural proposals are characterized by a dynamic, original, and exciting approach, based on reflection and the active involvement of the audience in unconventional places (city centers, green areas, urban contexts, and museums).	Construction of networks and partnerships with stakeholders; a dense network of relationships with institutional bodies, creative industries, and end-users.	A dedicated website for each business sector, external communication, streaming and interactivity, social media, and newsletter.	Theaters, clients and financiers, partners in coproduction, theater companies, festival schools, private companies, institutions, universities, and final users.	Value-orientated business with low fixed costs.	Variable price depending on the customer segment and the product/service offered.	Involvement of key stakeholders and young generations in projects related to environmental, social, and cultural issues. Dissemination of topics related to intergenerational and interracial respect, environmental sustainability, ecosystem, and arts-based knowledge exchange.

here is that sustainable BMs are inherent in the creative industries, which are established on a strong social and cultural connotation from the start and, by definition, manage to propagate their artistic values in the regions in which they operate.

5. Discussion

According to recent research,²⁷ one of the most notable short-term repercussions of COVID-19 was the inability of creative enterprises to attract audiences and visitors, both of which are critical components of their economic models. It was also suggested that huge segments of the industry would be unable to return to “business as usual” until the gap with the audience—who had ceased attending movies and theaters since the outbreak—was fully closed. Furthermore, the high fixed costs of rent have become unsustainable for most organizations, which can only pay them when attendance exceeds 60% of the venue’s entire capacity. In some countries, such as the United Kingdom, cuts to theater and performing arts subsidies meant that even those who had managed to optimize their BMs would be impacted by the numerous lockdowns. The severity of the crisis, along with the uncertainty surrounding containment measures and social distance, meant that many cultural groups reliant on active public engagement faced existential issues without substantial government assistance. Many creative sectors invested in new technology, assuming that streaming would be the future of the performing arts, yet many ended up wasting money.

Simultaneously, new digital technologies (even the most experimental ones) have proven to be beneficial resources in many circumstances, allowing creative industries to turn their websites into digital publishing platforms with tailored content bundles, such as those for members and high-level sponsors. Many of them began to consider new ways to reach out to visitors, tourists, and school groups that did not require their physical presence. Risks have been highlighted²² for the CCIs due to the distinctive structure of their BMs. For example, BMs span from public and non-profit institutions (e.g., museums, libraries, theater companies) to big for-profit operators (e.g., Netflix, Spotify). Economic development or profit is not usually the primary aim for a major section of creative professionals or micro-businesses in the industry, but rather a means to remain in the creative business, which is their core purpose. Many CCIs rely on intangible assets, such as highly specialized skills and competencies, social networks, or reputation and credit in certain creative communities. Obtaining financial assistance from credit institutions might be difficult due to the difficulty of pricing intangible assets. Similarly, many CCIs struggle to acquire funding for innovation, despite being innovators

themselves. As we have seen, the creative industries promote new methods of working, engaging audiences, and collaborating. They are also key sources of inspiration for other projects due to technical crossovers and business-to-business relationships (e.g., gamification of learning processes). Because innovation is often connected with technology, the CCIs are usually disregarded or omitted from programs aimed at promoting innovation in a limited sense.

According to recent research on sustainable CCI BMs in the post-pandemic era,²⁸ the potential key elements for a CCI BM proposed by previous studies—namely, cultural and creative value, market estimation, commercial advantage achievement, and marketing leverage—are hardly consistent when compared to the distinguishing characteristics of CCIs. These characteristics include a high level of risk connected with commercial operations, an emphasis on the balance of creativity and commerce, high production costs against cheap reproduction costs, and the semi-public nature of products, which needs the creation of scarcity. The intellectual property of the goods or services developed by these companies, in particular, can be attributed to the individual or group responsible for their creation; most of these products or services are difficult to duplicate; and the production of these goods or services is a means of conveying figurative messages to consumers, which undoubtedly requires some degree of creativity.

There are eight main considerations when building a business strategy for CCIs:²⁸ (i) Cultural value commitment: a commitment to cultural values; (ii) Added creativity value: an explanation of added creativity values for CCI products; (iii) Marketplace conjecture: marketplace conjecture for CCI products and services; (iv) Direct and indirect trading rivalry: analyses of direct and indirect trading rivalry; (v) Industrial profits: tactics for acquiring industrial profits; and (vi) Marketing strategies: marketing for CCI products and services. However, this idea on the BM for CCIs lacks consideration of sustainability. We may try to connect these past studies by transferring and redefining the important components of the BM Canvas developed in this study, as shown in [Table 18](#).

When attempting to design a BM for the creative industries, two additional areas may be defined to complement the eight already delineated: one for communication strategies and one for the social, cultural, and environmental effects unique to firms functioning in the CCI sector. These factors, aided by the COVID-19 pandemic, have become increasingly important not only for an organization’s economic and financial development but also for the redefinition of its identity characteristics,

Table 18. Aggregated business models of performing arts organizations—own elaboration from Lin²⁸

Marketplace conjecture	Added creativity value	Requisite knowledge and skills	Cultural value commitment	Commerce development	Communication strategies	Marketing strategies	Direct and indirect trading rivalry	Industrial profits	Social, cultural, and environmental impact
Schools, universities, private companies, foundations, public institutions, third-sector associations and entities, theater companies, and suppliers.	Production of shows, digital and interactive performances, training courses for all age groups, organization of cultural events, business services, and corporate theater.	Human resources, digital and technical resources, financial resources, and intellectual resources. High creativity, transversal thinking, and specific technical skills in the field.	Cultural proposals are characterized by a dynamic, original, and exciting approach, based on reflection and the active involvement of the audience in unconventional places (city centers, green areas, urban contexts, and museums).	Building networks and partnerships with stakeholders; strong relationships with institutional bodies, creative industries, private companies, and end users.	A dedicated website for each business sector, external communication, streaming and interactivity, social media, and newsletter.	Marketing aimed at the commercial development of relationships with partners and customers: Theaters, principals and financiers, co-production companies, festivals, schools, private companies, institutions, universities, and end-users.	Identification of competitors for theater/television/cinema/performing arts in general/visual arts/literature and poetry; industries with creative content targeting a mass audience. Digital platforms for streaming.	Variable price depending on the customer segment and the product/service offered. Value-orientated business with low fixed costs. Development of national and international cultural projects.	Involvement of key stakeholders and young generations in projects related to environmental, social, and cultural issues. Dissemination of topics related to intergenerational and intracultural respect, environmental sustainability, ecosystem, and arts-based knowledge exchange.

the narration of its artistic poetics, and the dissemination of values in the territories where it operates. Li's²⁵ study provides another important foundation for establishing a business strategy for the creative industries that incorporates digital change. In the study, he proposes a “holistic” BM that attempts to synthesize insights from prior studies and empirical research, focusing on the business value proposition—including product offering, target market segment, and revenue model—to reflect the entire vision and strategy. The value proposition is underpinned by the value architecture, which encompasses value capture, creation, distribution, and acquisition. The functional architecture, which encompasses product creation and commercialization, manufacturing and distribution infrastructure, and customer relationship management, provides the necessary support for the value architecture.

When the two models are compared, the value contributed by creativity in Lin's²⁸ framework (Table 18) becomes the fundamental offer of the creative sector in Li's²⁵ framework (Table 19). CCIs add value by diversifying themselves from their major rivals, which are digital platforms and sectors that provide customizable content to a large audience. The main infrastructure for the production and, above all, the distribution of PAOs shows is the extensive network of relationships with partners and stakeholders. The added value of the production is constituted above all by the uniqueness of the proposal, which is always customized according to the target audience—consisting of schools, universities, foundations, social venues (prisons, hospices, refectories), private companies—and the goal to be achieved, as well. The management of its relationships with its customers and stakeholders is being expanded through the use of digital technologies, which, through the implementation of the website, social media, and streaming platforms, strengthen and consolidate the link with the audience and contribute to the greater dissemination and circulation of information on shows, new productions, initiatives, and events globally.

What was once considered part of the social, cultural, and environmental effects is now an endogenous aspect of the CCI BM. This is because they employ the surrounding reality, especially the environmental, social, and cultural context, to create value through creative sensibility. CCIs can create unique content and incorporate it into their value creation and distribution by analyzing and filtering stimuli provided by the external surroundings. In this sense, they inherently and organically embrace sustainability ideals as part of their mission, as industries built on respect for and improvement of the settings in which they exist and virtuously feed.

Table 19. The holistic business model of the creative industries—own elaboration from Li²⁵

Financial sustainability	Value proposition			Stakeholder Credibility
	Product offering	Target segment	Revenue model	
	Production of shows, digital and interactive performances, training courses for all age groups, organization of cultural events, business services, and corporate theater.	Theaters, principals and financiers, co-production partners, theater companies, festivals, schools, private companies, institutions, universities, and end-users.	Variable price depending on the customer segment and the product/service offered. Value-orientated business with low fixed costs. Development of national and international cultural projects.	
	Value architecture			
	Value sensing	Value creation	Value distribution	Value capture
	Involvement of key stakeholders and young generations in projects related to environmental, social, and cultural issues. Dissemination of topics related to intergenerational and interracial respect, environmental sustainability, ecosystem, and arts-based knowledge exchange.	Cultural proposals are characterized by a dynamic, original, and exciting approach, based on reflection and the active involvement of the audience in unconventional places (city centers, green areas, urban contexts, and museums).	Human resources, digital and technical resources, financial resources, and intellectual resources. High creativity, transversal thinking, and specific technical skills in the field.	Diversification of the artistic and cultural offer proposed concerning the main competitors for theater/television/cinema/performing arts in general/visual arts/literature and poetry: industries with creative content targeting a mass audience. Digital platforms for streaming.
	Functional architecture			
	Product innovation and commercialization	Infrastructure for production and distribution	Customer relations management	
	Creation of unique and customized products and services. Partnership with: schools, universities, private companies, foundations, public institutions, third-sector associations and entities, theater companies, and suppliers.	Building networks and partnerships with stakeholders; strong relationships with institutional bodies, creative industries, private companies, and end users.	A dedicated website for each business sector, external communication, Streaming and interactivity, social media, and newsletter.	

6. Conclusion

The current study begins with an examination of the BMs of 12 Italian PAOs that participated in a qualitative and quantitative research process to determine whether and how the COVID-19 pandemic had an impact on their transformation, and in what ways.

A BM was established using semi-structured interviews and internal data requests, and it used the BM Canvas framework to identify the primary factors that would determine how these organizations produce and distribute value. This outcome was then corroborated by the organizations themselves, who reflected on the changes that had happened and continue to occur as a result of the epidemic. The current analysis also aimed to improve components of the socioeconomic structure and, more specifically, sustainability, based on the findings that the research progressively presented and revealed.

What emerged, in the end, is that the organizational structure of PAOs has changed profoundly:²⁹ they have had to equip themselves with resources and skills that were not particularly necessary previously to cope with the profound crisis that has seen them play a leading role as a result of the closure of theaters and cinemas throughout Italy. Furthermore, the closing of performance venues has had a significant impact on their BMs: the hunt for alternative sites to hold their performances has driven PAOs to increasingly employ outside outdoor venues, park areas, and museums. The hunt for new forms of financing has also increased their capacity to network and access new initiatives, incorporating new clients, such as small- and medium-sized enterprises, and new contexts, such as jails, schools, and universities, into their relationship systems, thereby opening up additional opportunities for European collaboration.

As a result, their BMs have grown more sustainable over time, with a focus on green concerns related to

sustainable development and the creation of new virtuous practices that promote new forms of sociality and collective wellbeing.

The frameworks presented, which are related to the definition of a new BM for the creative industries, demonstrate how the process of transformation occurring in the CCIs is increasingly in need of redefinition. This redefinition better illustrates the main values underlying the good practices triggered by the pandemic and consolidates that openness to new green, digital, and social values. Moreover, as has been shown, there is a positive relationship between learning orientation and innovation in the BM, a sign that PAOs have embarked on a transformative journey with the intention of learning different ways and training themselves to get back on the market.³⁰

This paper summarizes the outcomes of research on the CCI sector, which, using empirical methodologies, aims to create a BM that captures the fundamental organizational alterations caused by the COVID-19 epidemic. It highlights the study's major findings and contrasts them with recent scientific studies on BMs, allowing for discussion and debate on the significant themes that have developed (new technologies and social and environmental impact). The uniqueness of this approach lies in recognizing these features, notably sustainability challenges, as being crucial in the production of value for CCIs. However, one of the limitations of the present work is the small sample size compared to the total creative business. In actuality, only performing arts groups were studied, with no attention paid to visual arts, literature, cinema, and other areas of interest. Future research in the field might widen the analysis to include different sorts of organizations (both profit and non-profit) in the cultural sector, improving the accuracy of the model presented here.

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The author declares no conflicts of interest.

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Availability of data

Requests to access the data should be directed to all the organizations that take part in this study and to the corresponding author that can only partially provide anonymized data.

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ARTICLE

From here to eternity: The rise and fall of global art worlds and the contemporary private museum

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Abstract

The process of converting a private collection into a public museum is often presented as a means of ensuring a collection's future by transforming it into an enduring asset for future generations. This case study assesses contemporary collection models as well as entrepreneurial investor-collectors and their respective museum-building strategies by addressing two fundamental questions: (1) What is the role of the contemporary art collector and private museum and (2) How do their interactions with art markets challenge the established protocols and hierarchies of the global art network? It shall be argued that private collection museums often have a limited lifespan. Furthermore, the future of private collections and museums is often determined within the lifetimes of their creators. This can play out in one of four ways: first, collectors may offer artworks at high-profile auction houses; second, they may sell the art collection and close the museum or collector's exhibition space; third, they may sell the museum or exhibition space. Alternatively, private collectors, along with their museums and art collections, can play an important role on the global stage. However, more rigorous planning is necessary for these collectors to distinguish themselves, expand the cultural landscape, and ensure their collections endure within or beyond their creators' lifetime.

Keywords: Contemporary private museum; Art collectors; Private collection; Contemporary art; Global art worlds; Here to eternity

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1. Introduction

In the past, individual collectors determined their “philanthropic” gesture and the future of their collection, private museum, or mansion museum toward the latter part of their lives. Earlier benefactors often gifted and endowed their museums to the public upon their death; for example, Henry Clay Frick, Isabella Stewart Gardner, and Dominique de Menil transitioned their art and museums to the public through private non-profit foundations. In doing so, they memorialized their cultural achievements and ensured their respective art collections remained intact beyond their lifetime, albeit at considerable personal expense. The process of converting a private collection into a public museum is often presented as a means of ensuring a collection's eternal future, transforming it into an enduring asset for future generations. However, this study shows

that contemporary private museums often have a limited lifespan as collectors are intent on shaping their personal narratives within their own lifetime. This is because contemporary entrepreneurial collectors make their fortunes earlier than their predecessors, thereby using their newly created wealth to assemble large collections and enhance their cultural credentials within elite international art networks. Moreover, constructing their private art museum allows them to craft their public persona while maintaining control over their art collections.¹

This paper addresses two fundamental questions: (1) What is the role of the contemporary art collector and private museum and (2) How do their interactions with art markets challenge established protocols and hierarchies of the global art network? It does not seek to offer a comprehensive assessment of public funding streams or the complex international tax and legal structures available to wealthy individuals.²

1.1. Overview

In 2023, the University of Amsterdam's publication of *Private Art Museum Report* and *Beyond the Global Boom: Private Art Museums in the 21st Century* that is led by Olav Velthuis provides a much-anticipated overview of the current museum-building boom that has emerged since 2000. The authors shed light on recent shifts by mapping expanding geographic regions that have embraced the private museum model. The *Private Art Museum Report*, published by Larry's List, suggests that there are currently 446 private contemporary art museums in the world. A significant number of these are in Germany (60), the United States (59), South Korea (50), Greater China (30), and Italy (30).³ The University of Amsterdam's research asserts that 76 private museums have closed, with a further 24 transitioning into the public sphere or being overseen by independently operated art foundations, thereby raising concerns regarding the long-term future of private museums. Moreover, the report notes that "financial issues" underpin 34.2% of the closures, followed by "insufficient interest from the public," which accounts for 15.8% of the reasons given for closing museums. Other reasons include difficulties with the building, legal issues, and a lack of government support, among others.⁴ These observations support my earlier findings in *The Private Collector's Museum: Public Good Versus Public Gain* (2019), in which I argued that "maintaining them [private museums] and their holdings intact, indefinitely, continues to be the biggest challenge facing many contemporary art collectors and benefactors."⁵ This study shows that private museums are largely defined by their founders' personal circumstances, wealth, and cultural visions and thus do not adhere to a single model of the private art museum.

In an essay published in the *Financial Times* (2014) entitled "The art world we deserve?," contemporary German collector Harald Falckenberg wrote that art museums and institutions must balance financial and time constraints and are thus less inclined or able to build in-depth permanent collections, instead shifting their focus to temporary exhibition programs. Falckenberg argues that this is why there are so many private museums. Such an assessment represents more established models of cultural benefaction and does not reflect the diversity of today's new investor-collector. I would add that the stimulus for many international collectors entering the art world is more closely aligned with the market rather than public institutions. Falckenberg expands further on private museums: "But that is a solution limited to only few collectors, personally and financially and the desire of so many collectors to leave behind a monument of their long-term engagement with art is a dream far beyond the reality of the current art world."³ When I asked Falckenberg if private museums could maintain large collections of art beyond the founder's lifetime and without substantial endowments, his response was clear: "Usually it is not for a long time. Private museums usually have a limited lifetime, unlike public museums."⁵

This paper reveals the different ways in which 21st-century collectors are building significant art collections, managing their cultural, art market, and global reputations, and forming complex inter-relationships between private and public while remaining financially solvent. My findings show that this can take place in one of four ways: collectors may offer works from their collection at high-profile auction houses when facing economic challenges (for example, Liu Yiqian and Wang Wei, Long Museum); they may sell the art collection at auctions and close the museum or "museum-like space" (for example, Thomas Olbricht, *me* Collector's Room); or they may sell the collection and the museum-like space when long-term plans are hindered (for example, Guy Ullens, The Ullens Center for Contemporary Art (UCCA)). Alternatively, independent collectors can play an important role on the global stage. The assessment of Harald Falckenberg, Budi Tek, and Sultan Sooud Al Qassemi illustrates that more rigorous planning is needed if collectors are to distinguish themselves in their quest to expand the cultural landscape and ensure that their holdings can endure within or beyond their lifetimes while securing their financial positions.

2. The present is the future

2.1. Private art collections and high-profile auction houses: Long Museum, China

The Chinese collector couple Liu Yiqian and Wang Wei has attracted international attention with their

acquisitions, which included a US\$45 million 600-year-old silk wall hanging in 2014 and US\$170.4 million Amedeo Modigliani's painting *Nu Couché* (1917) in 2015. In the same year, they spent US\$42.8 million on Modigliani's painting *Paulette Jourdain* (1919). In *A Modern History of China's Art Market* (2023), Keija Wu notes that the Long Museums "house thousands of artworks in Liu's permanent collection,"⁶ although the exact number of works is not specified. This lack of transparency makes it difficult to assess the depth of the Long Museum's holdings. However, Liu and Wang are part of a growing group of entrepreneurial investor-collectors who have benefited from China's economic growth, capturing global attention through their acquisitions of traditional Chinese, modern, and contemporary international art.⁶

While Liu and Wang made international headlines with their extravagant purchases, they also attracted attention when they offered their holdings to Sotheby's Hong Kong on October 5, 2023. The auction featured 39 works of art from their collection. Promoted as "the largest from a single owner that the auction house has held in Asia,"⁷ the high-profile sale was titled "A Long Journey: A Selection from the Liu Yiqian and Wang Wei Collection" (Lots 8501 – 8540). The title "A Long Journey" not only implied an extensive collecting history but also referenced the three Long Museums that Liu and Wang established in Shanghai and Chongqing since 2012⁸ and the symbolic value associated with both the collectors and their private museums.⁷ Liu and Wang closed the Long Museum in Shanghai Pudong in 2023, and remained closed for much of the year and at the time of writing. Similarly, the museum in Chongqing ceased its exhibition program, leaving only the West Bund site open to the public without interruption.

Sotheby's toured the collection to five destinations before returning to Hong Kong. The first exhibition was held at Sotheby's Shanghai office in late August, before moving to Beijing, Taipei, and Seoul and concluding at Fong-Yi Art Gallery, Taichung, from September 20 to 21, 2023.⁹ Sotheby's heavily invested in marketing the sale on social media, producing extended videos that featured glowing testimonials about both the artworks and collectors, and impressive gallery installation views that displayed the works in the most favorable light. A comprehensive catalog included photographs, artist biographies, detailed descriptions of each piece, and historical comparisons with world-famous artworks to enhance Liu and Wang's holdings and the collection's provenance and uniqueness.

As previously noted, in 2015, Liu and Wang paid US\$42.8 million for Modigliani's painting *Paulette Jourdain* (1919); in October 2023, they sold the painting for only US\$35 million, which was well below the collectors'

purchase price less than a decade ago. The auction included works by Rene Magritte and David Hockney, with Sotheby's estimating the auction would raise between US\$95 and US\$135 million. However, the sale fell short of this estimate. The overall result, including premiums, was US\$69.5 million, with a sell-through rate of 74% as 10 works were unsold. Sotheby's guaranteed seven works, including *Paulette Jourdain*, for approximately US\$45 million¹⁰ as Sotheby's narratives amplified perceptions of artistic value, the status of collectors, and the public spending of large sums of money on art to attract international buyers.¹¹ Even so, the perception was quite the opposite as many have argued that the decision to bring the disparate works into the market appeared to lack the gravitas often associated with significant sole-owner collections,¹² as evidenced by the sale of the Olbricht collection discussed in the following passages.

Sotheby's sale event, "The Now Auction" in New York (November 15, 2023), offered four additional works from Liu and Wang's holdings, with each work falling below or meeting the low estimates. This included Marlene Dumas's painting *Love Your Neighbor* (1994), Kerry James Marshall's *Plunge* (1992), and Jenny Saville's large painting *Shift* (1996 – 1997). The auction house took a different approach with Gerhard Richter's monumental piece *Strip* (2015) as they were concerned that it would fail to reach an estimate of US\$2 – 3 million when they accepted New York art dealer Leo Koenig's low irrevocable bid of US\$1 million. Much to Koenig's surprise, Sotheby's accepted the offer to minimize their financial burden as all works were guaranteed by Sotheby's.¹³ Koenig was clearly taken aback by Sotheby's eagerness to accept what may have been an unrealistic offer, shedding light on Sotheby's decision to minimize the negative impact should such a significant work fall short of the market's expectations. Overall, both the New York and Hong Kong sales delivered less-than-satisfactory results and failed to meet Sotheby's expectations.

It is unclear why Liu and Wang are selling works from the Long Museum's collection amid slow financial markets and somewhat diminished returns. Hence, many were not surprised to see several pieces being sold below the low estimates.¹² *Artnet Price Database* reported that the sale of works from Liu and Wang's holdings was perhaps in line with the overall underperforming market at global auctions at Christie's, Sotheby's, and Phillips. This trend is evidenced by the 22.7% decline in the first half of 2023 compared to the same period in 2022.¹⁴ Nevertheless, Sotheby's sales drew attention to Liu and Wang's recent acquisition of all 39 works that were brought to market as they were purchased in the past 5 – 15 years, with many contemporary art pieces created in less than a decade.

Richter's panel *Strip* is one such example, which was created in 2015. It was presented in Marian Goodman's booth at Art Basel in 2016 (valued at €3 million) and later acquired by Liu at an undisclosed amount.¹⁵ This brief holding period is insufficient for a collector to benefit from the appreciation of such an asset (especially contemporary art), thereby raising further questions about the collectors' financial viability and true motivation for buying it and other artworks in the first instance.

The *Art Basel* and *UBS Survey of Global Collecting 2023* report indicates that 39% of high-net-worth individual collectors noted a resale period of up to three years and 83% did so within five years.¹⁶ Liu and Wang's decision to sell some of their holdings appears consistent with current market trends and other investor-collectors (including Guy Ullens). The "A Long Journey" auction sheds light on changing global attitudes and motivations in collecting and establishing private museums, where artworks are viewed as assets that can be quickly converted to cash and museums can transition to spaces for hire, thereby diminishing the symbolic value associated with both collecting and museum-building. Even so, I question the motivation to construct not one but three private museums if the value of art and the notion of museums are seen as short-term investment-collecting and museum-building strategies for creating short-term value.

2.2. Sell the collection at auctions and close the museum: *me Collector's Room*, Germany

German collector Thomas Olbricht began collecting contemporary art in the 1980s and established the *me Collector's Room* in Berlin in 2010 (2010 – 2020).¹⁷ He also developed one of the largest private *Wunderkammer* collections, comprising 300 objects dating back to the Renaissance and Baroque periods. *me Collector's Room* presented 41 exhibitions over a decade, wherein Olbricht exhibited works from his holdings, specific artists he collected in depth, other private collections, and, more recently, international (state) collections. This included exhibitions such as "Contemporary Art from the United Arab Emirates" (September 13 to October 29, 2017) and "Indigenous Australia" from the National Gallery of Australia (November 17, 2017, to April 2, 2018).

In May 2020, Olbricht announced the sudden closure of *me Collector's Room*, and by the end of September, approximately 500 works from his *Wunderkammer*, modern, and contemporary art collections were presented at the Van Ham auction house in Cologne.¹⁸ Van Ham's promotion of the sale "From a Universal Collector: The Olbricht Collection" was not dissimilar to Sotheby's

marketing of Liu and Wang's holdings, emphasizing the cultural capital, impeccable provenance, and prestige associated with Olbricht's significant collection of old and new art. The appeal of this collection was broad, attracting 1,300 bidders from 31 countries, including new and online bidders.¹⁹ The collection's appeal was clear as the sale of 370 artworks and objects from the *Wunderkammer* collection generated a total of approximately €3.4 million above the estimate. The total estimate was around €4.9 million, and the overall result (including premiums) was €8.4 million.²⁰ Notably, works from Olbricht's collection continued to sell well after the inaugural auction of 2020. Parts III – VI auction lots commenced in October 2020 and continued through June 2021 and June 2022.

It is unlikely that Olbricht needed an instant cash injection as he is the heir to the Wella Corporation. However, it remains unclear why he chose to sell much of his collection, which comprised approximately 2,000 works. Although the COVID-19 pandemic was thought to have prompted the temporary closure of *me Collector's Room*, it does not explain the permanent closure and subsequent sale of the collection. I would argue that the final exhibition entitled "*moving energies – 10 Years me Collector's Room Berlin*" (February 29 to May 17, 2020) provided some clues as to what lies ahead. The art space draws its name from the exhibition title, expressing Olbricht's desire to share his art with the public. The final exhibition looked back over time and was thus "partly monographic and partly thematic" and set up as private "staged sets" that mapped the collector's "inspirations and ideas" over time. Presented as a collector's retrospective, the curators showcased a complete display of Gerhard Richter's editions, including over 170 works, to demonstrate Olbricht's comprehensive approach to collecting and amassing a single artist's works in depth.²¹ This was not the only artist represented in such a comprehensive manner, which added to its appeal. Olbricht's collection was viewed as unique and of significant artistic and cultural value to the market.

The *moving energies* exhibition presented personal insights into Olbricht's collection, recreating private spaces and serving as a farewell to that chapter of his collecting history, which ended in 2020. The closure seems to align with the findings presented in *Beyond the Global Boom: Private Art Museums in the 21st Century* report, which observed, "10 years is the period that most museums were in operation before closing."²⁴ Even so, the swift decision surprised the market and sent a strong message to other private collectors and their museums when planning the future of what they had created.

2.3. Selling the collection and its art brand: The Ullens Center for Contemporary Art, China

In 2007, Belgian collector Guy Ullens established the “museum-like space” UCCA (2007 – 2016) as the first art institution in China founded around a single private collection. It was also the first to move to the 798 Art District in Beijing. The opening exhibition, “85 New Wave: The Birth of Chinese Contemporary Art, was soon followed by Christian Dior and Chinese Artists”, where a special exhibition featuring 100 haute couture pieces from Dior’s Paris collection created a dazzling narrative and fashion gala event. Scholar Shuchen Wang notes that this distinction set UCCA apart, making it “the landmark of Chinese Contemporary Art (CCA) in mainland China.”²² The collection quickly grew to approximately 1,700 works, and UCCA’s robust exhibition program included (but was not limited to) works from the founder’s holdings of Chinese Contemporary Art.

Within the 1st decade, Ullens began selling pieces from his collection as he realized that his personal and entrepreneurial ambitions would not be met. Thus, he began extracting himself from UCCA and China around 2011. As Wang notes, this shift was prompted by an earlier decision to restructure UCCA between 2003 and 2010 and transition the museum-like space from a non-profit entity to a for-profit art business, although it had always been registered as a for-profit organization in China. The plan was to generate €6 million annually to cover UCCA’s operating costs.²² This strategy proved unfeasible, and Ullens began auctioning parts of his collection that were owned by his private foundation as early as in 2009.²³ The process gained momentum in 2011 when 106 works were auctioned at Sotheby’s Hong Kong on April 3, 2011, under “The Ullens Collection: The Nascence of Avant Garde China”, followed by a further 90 works at Sotheby’s auction on October 2, 2011, under “The Ullens Collection: Experimentation and Evolution.”²⁴

This process continued in 2017 when 32 artworks were sold at Poly International in Hong Kong (June 4, 2017), with the auction house facilitating the private sale of an additional 22 works from Ullens’ holdings.²⁵ These sales conveyed the message that Ullens’s plan to sell his contemporary Chinese art collection and UCCA either to the government or privately could not be realized. He failed to garner sufficient financial or “philanthropic” support to cover UCCA’s operating costs, and his works proved financially unsustainable in the long term. More importantly, he appeared to lack the desire and willingness (both financial and personal) to continue his commitment to Chinese contemporary artists and his privately founded Center in Beijing. For these and other reasons, Ullens

sought to distance himself from his financial obligations to fund the UCCA’s operations. However, his approach arguably did little to enhance his public reputation in China as he appeared to be profiting from the sale of a collection originally perceived as part of a “non-profit” institution; despite his earlier impression of intending to gift the holdings to the state.

In 2016, Ullens officially announced plans to sell UCCA and his remaining holdings. By late 2017, UCCA had been sold to a private consortium led by Chinese advertising billionaire Jason Jiang (founder of Future Edutainment), investors (Focus Media), and a group of local patrons and shareholders registered as the UCCA Group. UCCA transitioned into a newly formed private foundation seeking further financial support to offset its annual operating costs. This quickly signaled a new model for private museum-like spaces as the sale did not include the art collection or even the museum itself but access to the “UCCA” naming rights and the symbolic value associated with it. According to Philip Tinari, Director of the UCCA Center for Contemporary Art and CEO of the UCCA Group, many were initially confused about what was being sold as UCCA had few remaining assets, and the art collection had already been sold. Essentially, Ullens was selling a brand, the position, location, and the history of UCCA, which included important exhibition archival material.²⁶ As Wang points out, “Ullens built his own art authority through UCCA—a quasi-museum with customary social functions such as research, exhibition, and education (but not collection). Ullens attempted to make UCCA an established venue itself in China by having it headed by reputable directors and collaborating with luxury fashion and high-end brands.”²²

3. Private museums, collectors, and complex inter-relationships

My research has shown that private museums often struggle to endure beyond the founder’s lifetime. As a result, many have sought to secure their museum’s future by establishing private–public partnerships. With that in mind, I conclude my analysis by examining how collectors such as Harald Falckenberg, Budi Tek, and Sultan Sooud Al Qassemi have constructed complex inter-relationships between private and public, private and commercial, and private and state stakeholders, both within their respective nations and internationally, to take control of their cultural legacies.

3.1. Private and public: The Falckenberg Collection, Germany

Harald Falckenberg began collecting in 1994. In 2001, he started exhibiting his collection in a 62,000-square-foot

converted rubber goods factory in a suburban neighborhood of Hamburg, which he acquired in 2007. The following year, the Phoenix factory permanently housed and exhibited the Falckenberg Collection, which today comprises approximately 2,200 contemporary works by 450 artists.²⁷ Referring back to Falckenberg's earlier statement that private museums do not last as long as public museums, he also questioned the limitations of public institutions and their willingness to accept personal collections.²⁸ He believed that "the problem lies in the antagonism that exists between private collectors and museums, a result of new perceptions of their respective roles."²⁹ Such observations inform how he has gone about supporting artists, his collecting philosophy, and his motivation for staging innovative exhibitions while ensuring that the Falckenberg Collection remains publicly accessible, both during and beyond his lifetime.

In 2011, Falckenberg partnered with Hamburg's Deichtorhallen. His collection was made available on a long-term loan, as was the Phoenix factory exhibition space, which displays works from his holdings, including large installation works. The partnership was initially based on a contract between the city of Hamburg and Falckenberg, which was set to expire in 2023. The original agreement included the city's contribution of €570,000 per year to cover exhibitions and staff costs, with any additional expenses borne by Falckenberg.²⁹ The agreement has been extended to 2032, although the details of the new contract have not been publicly disclosed. This arrangement was especially significant because Falckenberg passed away on November 6, 2023.

Falckenberg and other German collectors have sought to secure complex long-term loan agreements with key exhibition spaces and public art museums, even though they have established their own private collection museums.³⁰ In doing so, they have sought more permanent solutions to ensure that their private museums and collections remain intact through such partnerships with the public sector. This reflects Falckenberg's belief that "private museums usually have a limited lifetime, unlike public museums."²⁸ I have argued that such arrangements might counter the current perception that the creation of a private museum is a natural step toward securing the future of a collection—a step that provides some form of guarantee that the collection will remain intact indefinitely.³¹ However, it should be noted that public institutions are often reluctant to agree to such binding agreements due to declining government funding, rising operating costs, and increasing demands placed on public institutions. These institutions must also uphold their obligations to their collections and curatorial missions to avoid compromising their integrity.

This raises important questions about how future private-public partnerships might be shaped.

3.2. The global art world and private museums: Yuz Museum, China

After nine years, the Yuz Museum vacated the vast converted airplane hangar in Shanghai's West Bund cultural district and relocated it to a new suburban facility shortly after the Chinese-Indonesian founder and collector Budi Tek passed away in March 2022. The new venue opened in May 2023. Located in Shanghai's ancient town of Panlong, the museum is built on a scenic green area containing rivers, paddies, and bamboo forests. The formation of the Yuz Foundation and Yuz Museum reflected Tek's overarching ambition to perpetuate his collection, museum, and personal legacy beyond his own lifetime, to memorialize his legacy. The inaugural exhibition "A Journey" (May 18 to August 13, 2023) celebrated the foundation's 10th anniversary by showcasing 40 works from the Yuz collection.

Tek's grand cultural vision was to transform the Yuz Museum into the public sphere. When this approach proved unsuccessful, he considered an alternative path by partnering with the Los Angeles County Museum of Art (LACMA) in 2018 – 2019. This partnership would create a "joint-venture foundation to oversee the bulk of his collection while giving the Yuz Museum access to LACMA's holdings."³² Tek's untimely death accelerated the arrangement between the Yuz Foundation and LACMA, ensuring that the Yuz Museum (now somewhat reduced in scale and presence) and Tek's 1,500-strong collection of contemporary Chinese and international art remain in China. The museum will now operate as a distinct entity under the joint management of the Yuz Foundation and LACMA. Furthermore, this strategic partnership will include exhibition exchanges and possible funding contributions from the Qatar Museums Authority, which is overseen by the Qatari ruling family.

This partnership represents transcultural collaboration between a private museum (Yuz Museum), a private/public institution (LACMA), and the Qatari state authority, forming a hybrid model that is geographically and culturally diverse in its formation. As stated on the Yuz Museum website: "This collaboration was established to jointly develop and share exhibitions and cultural programs across these prestigious institutions, effectively creating a multi-site exhibition program with a truly global perspective."³³ The exhibition "Watering the Desert | Contemporary Art from Qatar" (November 8, 2023, to March 3, 2024) features 37 Qatari and Qatar-based contemporary artists exhibiting in China.³³ The partnerships will also allow contemporary Chinese artworks from the Yuz Museum to be displayed

internationally. The Yuz Foundation and the new Yuz Museum are now managed by Budi Tek's daughter, Justine Alexandria Tek, who is determined to continue her father's legacy while ensuring the project's ongoing financial sustainability. Furthermore, she is keen to develop cross-cultural exchanges, co-curate traveling exhibitions across the three institutions, and leverage LACMA's vast expertise in curatorial, collection, and museum practices to benefit the Yuz Museum.³⁴

3.3. Global art networks: Barjeel Art Foundation, United Arab Emirates

Sultan Sooud Al Qassemi is intent on changing the narrative and established perceptions of the Arab world and the Middle East by making Barjeel Art Foundation's (Barjeel) holdings freely accessible to new audiences. Openly sharing knowledge and educating the public about the historical, social, and political developments in Arab art is key to Al Qassemi's cultural ambitions. The emphasis on exhibitions, publications that support the collection, and collaborations with museum and university partners informs the basis of the Foundation's *raison d'être*. To better appreciate Al Qassemi's broader vision, one needs to consider why he established the Barjeel in 2010, his motivation to collect art from the Arab world, and his decision to make his private art collection publicly accessible. His holdings include artists from the Middle East, North Africa, and South Asia regions, artists from different ethnic groups within the Arab world, and Arab diaspora artists.

In 2008, the government of Sharjah acknowledged Al Qassemi's formal request for an exhibition space, making the 470 square-meter gallery (Maraya Art Center) within the newly renovated building in the Al Qasba district of Sharjah available (rent-free, but not "cost-free" as Al Qassemi notes) to the Foundation.³⁵ Again, we can see how governments and independent art organizations work together to build an expanding cultural ecosystem. In one decade, the Barjeel Art Foundation curated a total of 29 exhibitions: 16 were hosted at the Maraya Art Center, 11 were in collaboration with international and regional institutions, and the remaining 2 exhibitions were held at the Sharjah Art Museum and Emirates Palace in the UAE.³⁶ The Maraya Art Center was home to the Foundation's art collection and robust curatorial program until 2018. Although the closure of the Maraya Art Center signaled a shift in the Barjeel's trajectory and cultural plans, it also led to a partnership and long-term loan arrangement with the Sharjah Art Museum (2019 – 2023), which was renewed in September 2023. Private organizations such as the Barjeel can access the space for exhibitions that they curate and organize independently of the Sharjah Art

Museum. This arrangement allows art associations and foundations that do not have permanent exhibition spaces in Sharjah to utilize some of the museum's galleries. Barjeel is responsible for temporary displays and rotates/updates exhibition programs accordingly. As a government-run institution, such agreements are centrally approved by the Sharjah Museums Authority.

Al Qassemi recognizes the importance of staging temporary exhibitions, lending works, and forming strategic collaborations with art galleries and universities, along with their art museums in the United States, the United Kingdom, and Europe. This allowed him to tell the "Arab story" at a time when few spaces were exhibiting modern and contemporary Arab art. Although it may not always be possible to control the interpretation and reception of works of art tied to a particular geographic region when they leave their original context, the exhibition "Imperfect Chronology: Arab Art from the Modern to the Contemporary" at the Whitechapel Gallery (September 2015 to January 2017) was a significant milestone for the Foundation, shedding new light on Arab art. This is because the artistic practices of the 19th and 20th centuries in the Arab region often escaped the attention of scholars in both the Arab and Western worlds. The Barjeel Foundation seeks to fill these historical gaps by ensuring that Arab art is not forgotten and that it is accurately documented by scholars and practitioners working in and within the region.

More recently, Al Qassemi has partnered with Christie's London and Lempertz Berlin auction houses to further expand their mission. In 2023, we can observe a move into the commercial art sector as Barjeel's collection was exhibited at both Christie's London and Lempertz Berlin. The exhibition "The Jewels of my Career: Works by Marwon" presented paintings by renowned Syrian-born artist Marwan Kassab-Bachi (1934 – 2016) and was organized in collaboration with Lempertz Berlin (June 2 – 30, 2023). The exhibition was promoted as the "Masterpieces of Marwan Kassab-Bachi from the collection of Barjeel Art Foundation," highlighting significant works in their holdings.³⁷ We can thus observe the language adopted by auction houses when praising collectors and publicly endorsing their holdings with terms such as "The Jewels of my Career" and "Masterpieces," even when the artworks are not offered for sale. Although it is unusual for private collections to be exhibited in auction houses when the works are not for sale, the art market and auction houses are increasingly adopting museum practices by curating loan exhibitions and employing museum curators and scholars, thereby merging what is traditionally understood as a museum and auction house.

For example, Dr. Ridha Moumni, formerly a historian of Art and Archaeology at Harvard University and currently Deputy Chairman of Christie's Middle East and North Africa, curated the loan and selling of exhibitions titled "Kawkaba: Highlights from the Barjeel Art Foundation and Emirati Art Reimagined: Hassan Sharif and the Contemporary Voices". These sections were part of the larger "Modern and Contemporary Art of the Arab World" exhibition displayed in London (July 20 to August 23, 2023).³⁸ The exhibition was a three-way collaboration between the Ministry of Culture and Youth, the United Arab Emirates, the Barjeel Art Foundation, and Christie's London. Barjeel is registered as a commercial entity in the UAE as the notion of independent non-profit institutions does not exist under UAE law.³⁵ Al Qassemi is also a part-owner of a commercial gallery in Dubai, so we can see how the private, public/state, and commercial sectors intersect. Iconic works from Al Qassemi's holdings, such as those by Marwan, play an important diplomatic role as they are prominently featured in Barjeel's many traveling exhibitions intended to raise awareness of Arab artists. The exhibitions and the rationale underpinning them are thus deeply rooted in a desire to enhance perceptions around a select group of artists, thereby emphasizing their artistic value and importance within not only Al Qassemi's holdings but also the broader narrative of Arab modern art.

4. Conclusion

This case study assessment is set out within a distinct typology to emphasize the individual trajectories and approaches that contemporary collectors have embraced when seeking to shape the future of their cultural assets, private museums, and "museum-like spaces" alongside their personal wealth. It has been shown that many entrepreneurial collectors have done so with one eye on the art market and the other on their global art networks, strengthening what they have created without compromising their legacies as important collector-patrons. Some collectors adopted a short-term investment-collecting and museum-building strategy for short-term value creation, whereas others embraced what Wang referred to as "transnational art enterprises".²² Moreover, it has been shown that contemporary art collectors, their private museums, collections, and museum-like spaces can have a limited lifespan, and their destiny is often in the hands of their founders and creators.

The conventional philanthropic path for wealthy collectors has been to donate works of art or money to existing museums or to establish their foundations and museums, such as the Frick and Menil Collections and the Isabella Stewart Gardner Museum. Established legal

and tax systems have supported such initiatives in the United States, the United Kingdom, Australia, and parts of Europe. The Falckenberg Collection's longstanding collaborative partnership with the city of Hamburg and Hamburg's Deichtorhallen provides an alternative chapter to conventional collector journeys. However, it raises questions about the desirability of private-public partnerships as endowments are required to support the ongoing care, research, and display of gifted works. In 2016, the People's Republic of China formed new laws—such as updates to the General Rules of the Civil Law, Charity Law, Non-state Education Promotion Law, and Enterprise Income Tax Law—to address private sector support for the arts and culture by providing a legal framework for the registration, management, and tax guidelines for non-profit institutions.²² The delay in implementing such cultural policies and regulations might explain Guy Ullens's opportunistic approach in turning his museum-like space into an art business, despite UCCA being promoted as a non-profit when it was always registered as a for-profit entity in China. Wang suggests that "Ullens built his own art authority through UCCA".²²

Al Qassemi's role as a collector is unique as he adopts what he refers to as an "activist approach" on the international stage, pursuing various opportunities and partnerships that allow him to voice his and the Barjeel Foundation's cultural ambitions: "Our role is very different in the sense that we are very, very proactive".³⁵ In addition, Al Qassemi's promotion of art as a tool for soft power is immensely effective and has been well-received by international audiences. Building collaborative partnerships and cultural bridges across distinct geographic and cultural borders is a key to private collectors and their respective cultural endeavors. Here, art is used to educate and communicate ideas beyond the esthetic value ascribed to a work of art or the prestige associated with creating a private museum or exhibition space and owning and collecting expensive artworks. With that in mind, I conclude with Harald Falckenberg's cautionary advice to contemporary collectors:

"When it comes to collecting, you need a method and philosophy. For the rich, art is, indeed, an investment – there is talk of a general flight to material assets in times of low interest rates – but, first and foremost, art is seen as a luxury accessory and status symbol. To create something new all one's own, while remaining in the game, is a balancing act that only a few succeed at mastering".³⁹

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The author declares no conflicts of interest.

Author contributions

This is a single-authored article.

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ARTICLE

Tools for the Portuguese contemporary art market

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Abstract

In the past two decades, the art market has seen significant growth, with scholars and academics across the globe showing newfound interest in its potential as an interdisciplinary field. This has led to a prolific number of publications, particularly through the lens of globalization. However, a dearth of studies from regions outside the main axes remains, despite the potential for such studies to challenge globalization. This article investigates the primary art market of Portugal, located in southwestern Europe, which borrows ideas from the Global South due to similarities with regions from outside Europe and North America. We apply this concept to the features from a country, namely Portugal that is considered semi-peripheral and marginalized within dominant narratives. We emphasize the permanent tension between the local actuation and the global aspirations of the players in this market. Using literature published on the subject, reports, and interviews, we systematize the mechanisms of activation of the primary market; the launch of art fairs; the emergence of contemporary art galleries, museums, and collectors; and the discourse surrounding the recognition of the global art scene. Despite being a small-scale, semi-peripheral market, a willingness exists to internationalize. Furthermore, in addition to its rich cultural history and substantial investments, mainly from the private sector, the market has attracted international audiences from the artistic milieu and thereby contributed to the heterogeneity observed in the Global South.

Keywords: Art market research; Global South; Globalization; Semi-peripheral art markets; Portuguese contemporary art markets

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1. Introduction

Dancing Ostriches from Walt Disney's Fantasia, a diptych painted by Paula Rego in 1995, "fetched an astonishing 3.5 million euros" at auction at Christies in London, "setting a new auction record for the artist," as reported by a newspaper in October 2023.¹ Rego, who passed away in 2022, was a Portuguese painter based in London. She was known for her figurative, storytelling style, and political engagement, using her art to denounce social injustice and violence and deploying fables and fantasies with a sense of humor and ironic criticism. Although she was considered one of the most important Portuguese artists internationally and despite being recognized by her peers as one of

the leading artists of her generation, the international art market was slow to recognize her. Rego trained at the Slade School of Fine Art in London (1952 – 1956) and went on to build her career through prestigious galleries (e.g., Marlborough Gallery, Galeria 111, and Victoria Miro). She saw the founding of a museum dedicated to her work (the Casa das Histórias Paula Rego in Cascais, Portugal), along with significant solo exhibitions at renowned institutions, including the National Gallery of London; Tate Britain; the Calouste Gulbenkian Foundation, Lisbon; and the Serralves Museum, Porto). Considering Rego's path, one may well ask why the international art market was slow to recognize her worth. We posit that she had to contend with a lack of infrastructure to support the dissemination of her work from her country of origin. Moreover, there may also have been marked resistance toward her as a female artist.^{2,3}

Over the past two decades, scholars and academics across the globe have shown newfound interest in the potential of the art market as an interdisciplinary field. The literature on this subject has been prolific, particularly studies conducted from the perspective of globalization. In art markets, globalization can be considered to be the process by which the art world is interconnected on a global scale, a phenomenon that assimilates its actors and goes beyond national boundaries to fluidly circulate works of art. Ultimately, globalization is about cultural exchange, diversity, inclusiveness, and multiculturalism. Nevertheless, scholars have highlighted that global art markets operate within a hierarchical system of countries, within a hegemonic structure of institutions for contemporary art and with a segmented approach.⁴⁻⁶ In particular, internal mechanisms exist in the international contemporary art scene that perpetuates the hegemony of Western countries. The predominant role of a few countries with a greater number of artists recognized by the art system, such as the United States and Germany, creates an illusion of inclusiveness associated with globalization.⁷

Although there is growing academic interest in the interdisciplinary field of global art markets, the literature falls short of adequately addressing the development of art markets in emerging economies, countries, and regions that have historically lacked the infrastructure to engage with art market development. Studies by Becker;⁸ Moulin;⁴ Velthuis and Curioni;⁵ Robertson;⁹ Force;¹⁰ Zarobell;^{11,12} Lazzaro, Moureau, and Turpin;¹³ Archer;¹⁴ Duarte and Pérez-Ibáñez;¹⁵ Chagnon-Burke and Toschi;¹⁶ and the Bloomsbury Art Markets: Protagonist, Network, Provenance dictionary¹⁷ have provided valuable insights into pathways for internationalization, the scaling of emerging economies, and dynamics among

stakeholders – namely auction houses, gallerists, dealers, artists, collectors, and museums – while turning the spotlight on the connections, and tensions, between global and local markets. Meanwhile, international reports allow us to observe a year-on-year analysis of global sales. For example, the Art Basel/UBS report from 2022 reveals that global art sales in 2022 increased by 3% from the previous year to an estimated USD67.8 billion,¹⁸ The report serves as a tool for agents and scholars due to its macro-economic analysis of the state of global art markets. However, when we look closely at the survey's sample, the unmeasurable private transactions of the dealer sales sector indicate the issue of data reliability. The geographical distribution of the respondents to this report in 2022 comprised 53% galleries and dealers from Europe, 24% from Asia, and 16% from North America.¹⁸ These figures demonstrate that this report focused primarily on countries with the highest transaction volumes and concentrations of affluent collectors, specifically, North America, selected European countries, and Asian countries such as China. This falls short in contributing to comprehending and evaluating market behavior in countries beyond this primary axis, particularly those from the Global South or semi-peripheral or peripheral regions. The uneven distribution of empirical data may result in inconsistent presentations of the data, distorted interpretations, and imprecise conclusions.¹⁹

Besides prioritizing countries that generated the highest number of transactions, the art market report confirms the hierarchical functioning of the art market, as previously mentioned.⁴ The failure of globalization with regard to the dominance of nations from the Northern Hemisphere²⁰ emphasizes analyses that consider economic indicators and hegemonic structures, such as auctions and art fairs, and reinforces the invisibility and marginal position of markets in peripheral regions.

The extant literature on markets outside of the main structures is indeed fragmentary and represents an opportunity for research. This gap represents a chance to reveal unique, diverse, and dynamic new markets; deconstruct ideas of highly expensive, hierarchical markets; focus on specific aspects that link the local with the global; and shine a spotlight on peripheral or semi-peripheral art markets, as is the case with the Portuguese art market. We argue that analyzing a semi-peripheral art market using the concept of the Global South is an opportunity to decentralize narratives. The Global North and South classifications traditionally divide countries based on socioeconomic and geopolitical factors, such as patterns of wealth, development, influence, and privilege. This classification can, however, oversimplify the complexities of countries' socioeconomic situations or the historical

contexts of economic challenges, social inequalities, and low incomes. Like other regions, Portugal may be perceived to have similarities with regions traditionally categorized as part of the Global South. More than a metaphor, this concept seems useful when one seeks to examine certain contexts in detail, particularly when examining indicators such as global power dynamics, art market size, institutional support, and the role of private initiatives.

Furthermore, as a robust field of research, the Global South serves as an intersection between local and global perspectives, with the capacity to refresh art market analysis. It can also serve as a framework for critical thinking within art markets as well as a tool for investigating their unique characteristics and heterogeneity.

In this article, we frame the concept of the Global South as applied to research in art markets. We emphasize the sources and methods used to analyze a semi-peripheral contemporary art market – the Portuguese art ecosystem in Southwest Europe. Using relevant literature, reports, field research, and interviews, we systematize the Portuguese art market. We observe the mechanism that activates the primary market, the launch of art fairs (e.g., the ARCOLisboa international contemporary art fair), the emergence of contemporary art galleries, and the discourse regarding the recognition of actors from semi-peripheral regions.

2. Tools for analyzing the Portuguese art market

Portugal is located at the westernmost point of Europe, on the Iberian Peninsula, surrounded by a long Atlantic coastline. A small country with a rich cultural heritage, Portugal's cities have retained their historical character, enriched by influences from Africa (Angola and Mozambique), South America (Brazil), and Asia (Macau and Timor) due to trading relationships and the country's colonial past. Given its history as a leader in cultural trade yet its currently limited status in terms of market infrastructure, Portugal is usually seen as performing at a semi-peripheral level²¹ or – by more critical voices – as essentially absent from the art market sector, especially the primary sector.

Thus, it is worth questioning the extent to which a semi-peripheral art market can contribute to the transformation of such markets globally. A combination of methods is employed to investigate this research question. Using the Global South concept as a tool to investigate the unique characteristics and heterogeneity of markets outside of the main axis, the study aims to identify the emergence of infrastructure in Portugal's contemporary art market, thereby providing a comprehensive understanding of

the dynamics within the art market and how actors can stimulate activation to evaluate art market pertinence and impact. Using a theoretical framework grounded in two key ideas, the first step was to map the structures of acquisition, art galleries, and art fairs that boost the primary art market. The second step was to map structures of legitimation, museums, and collectors who help publicize artists and boost recognition. These two key ideas were borrowed from French sociologist Raymonde Moulin,⁴ a pioneer in the study of European art markets, and partly developed in a previous study.²¹ Moulin specifically advocates articulation between contemporary art trade and the cultural promotion of museums and institutions, underlining the need for an international network among galleries and cultural institutions.

Using a methodology rooted in the social sciences, particularly in terms of combining archival and documental research from the art history and museology disciplines with tools from sociology (e.g., questionnaires, field research, and informal conversations), we systematized the data used to study the Portuguese contemporary art market. The literature review, scientific articles, press articles, catalogs, and academic publications provide theoretical insights into the topic. In addition, primary sources from galleries and private collectors' archives, which have already been investigated as part of the Women Art Dealers project¹⁶ and the Bloomsbury Art Market Dictionary,¹⁷ were constructive in contextualizing information about the achievements of Portuguese art galleries and collectors' strategies.

Pordata, a database of statistics about contemporary Portugal,²² has proven to provide information about the growing number of exhibitions at art galleries, museums, and art centers; the number of active artists; and visitor statistics in recent decades. These data were compared with those of the first anonymous survey for the sector we initiated in 2021 and 2022 through Google Forms. The survey was sent out through email to 74 commercial art galleries¹. The sample brought together data from the Exhibitio association of art galleries²³ the Luso association of art galleries (established in 2019), and the former Portuguese association of art galleries (Associação Portuguesa de Galerias de Arte). These data were supplemented by a map of contemporary art in Lisbon, namely the *Mapa das Artes*, created by Isto não

¹ As the intention was to compare the primary and secondary markets, the survey was also sent to 31 antiquarians from the Portuguese Antiquarian Association (Associação Portuguesa de Antiquários). For the purposes of this study, however, only data from the primary art market are considered.

é um Cachimbo, which publishes a map of Lisbon's art galleries and cultural spaces every year.²⁴ All respondents were contacted by phone to check that the email had been duly received on March 28, 2022. The art galleries surveyed were defined as companies with commercial purposes and a physical structure where exhibitions of works in different mediums²⁵ are held, primarily by living artists with specific training and that are recognized by peers and agents from the art scene.⁸

It was also considered important to reference these data against the respective gallery's website, associated museums, and collectors and to observe their program, activities, and participation in art fairs. Finally, informal interviews and conversations with key agents, including collectors, gallerists, and artists, were considered field research as well as a strategy for gaining qualitative insights into the topic.

This combination of methods ensured not only a thorough investigation but also a comprehensive mapping of the functioning of the art ecosystem, drawing upon diverse sources and perspectives. It thus served as a tool for deconstructing the idea of an absence of the primary art market and the pertinence of studies and knowledge about this subject.

3. Results

3.1. Art galleries and art fairs

The findings demonstrated an increase in the number of contemporary art galleries in Portugal since the second half of the 20th century. Chronologically, the trajectory of the art market for modern art galleries can be traced to the 1960s, when the art market was established. The literature suggests that there were few active commercial galleries before that time²⁶ While only 3 galleries were active in the early 1960s, this figure soon rose to 15²⁷ in the 1970s and reached 74 art galleries by 2022 (i.e., four decades later). According to a survey that I conducted, in terms of geographical distribution, the art market sector is concentrated in the main cities, primarily Lisbon, the Portuguese capital, and Porto in northern Portugal. In terms of longevity, many galleries have operated for more than 20 years (42%); however, a substantial number have opened in the past 5 years (23%), suggesting a growing dynamism in the sector (the survey sample comprised 44 answers from 74 art galleries contacted). Such establishments tend to be family-run businesses operating on a domestic scale with a relatively low number of employees, typically up to five.

Nevertheless, this domestic trend has evolved over the past two decades, with a shift toward internationalization. This transition has occurred gradually because of Portuguese

art galleries engaging in international art fairs. Some art galleries took the lead by regularly participating in art fairs since the late 1970s and early 1980s. In this domain, Modulo-Centro Difusor Arte, Quadrum Gallery, and Cómicos are worth mentioning as pioneers.^{16,21} The participation of Portuguese art galleries in art fairs has grown steadily ever since, with ARCOMadrid, the Bologna Art Fair, Art Cologne, Art Basel Miami Beach, Art Düsseldorf, Frieze Art Fair, Art Dubai, the Art021 Shanghai Contemporary Art Fair, and Artissima among the chosen art fairs. Some galleries have also consistently exhibited foreign artists in their regular programs alongside Portuguese artists (e.g., the Cristina Guerra Contemporary Art, Filomena Soares Gallery, Vera Cortês Gallery, Bruno Múrias Gallery, Nuno Centeno Gallery, Madragoa Gallery, and Francisco Fino Gallery), thus establishing a dialog between international artistic practices and experiences from local artists. Why does this matter? Internationalization means expanding and interacting beyond national borders to a global scale to engage with different countries across sectors, such as the economy or culture. Its significance lies in establishing a reputation for and elevating esthetic quality within the global sphere. Galleries adopting an international scope gain a competitive edge by exporting their artists and artistic trends and expanding their presence in major art collections. Participation in international art fairs allows for increased visibility, potentially enhancing artistic recognition on a global stage. In spite of this effort toward internationalization, if we take Art Basel as a barometer (considering its relevance in the global art ecosystem), Portuguese art galleries are underrepresented: only the Pedro Cera Gallery and Cristina Guerra Contemporary Art, two private galleries based in Lisbon (and in the case of the former, also in Madrid), regularly attend what is currently the most prestigious art fair.

Along with a focus on internationalization, a burgeoning interest among collectors and elite circles in contemporary art is reshaping the landscape of the Portuguese art market. This shift represents a considerable departure from the traditional focus as it propels Portuguese art galleries into the international arena.

Emphasizing the aim of internationalization, ARCOLisboa was launched as the Portuguese capital's primary contemporary art fair in 2016. Promoted by IFEMA, a Spanish consortium formed by the Community of Madrid, the Madrid City Council, the Chamber of Commerce and Industry, and the Montemadrid Foundation, ARCOLisboa aims to commercialize and disseminate contemporary art.²⁸ It was created as an extension of ARCOMadrid, a larger, well-established contemporary art fair launched in 1982,²⁹ in the wake of projects such as Art Basel Miami Beach (2002)

and Art Basel Hong Kong (2010). ARCOLisboa intends to define and assert its own identity as a boutique art fair.³⁰ Without an overarching theme, the fair focuses on the concept of outstanding artists, with a few artists selected for each booth. Its purpose is to present unique content that sets it apart from other leading fairs. This small-scale boutique fair model is informed by the drive for economic viability that characterizes its parent fair. In this setting, acquisitions are lower due to a more limited market while representing a challenge to the mainstream art fairs. The boutique concept specifically means encompassing up to approximately 80 galleries – the first edition, held in 2016, featured only 45 galleries (compared with the average 200 galleries showcased by ARCOMadrid). Presenting a boutique art fair of this kind gave rise to two major assumptions: First, a limited number of participants might have signaled a lack of ambition on the part of the organizers,³¹ less appeal for foreign galleries, and limited diversification and internationalization, with the implicit difficulties of attracting high-net-worth individuals. Second, it may be seen as a direct challenge to the kind of large-scale events taking place globally, refuting the notion of *fairtigue*, and proposing in its place a small-scale strategy that offers the possibility of enjoying art in a more comfortable environment on a human scale. This challenge implies a rigorous approach to content that is centered on distinctiveness in terms of identity and experience. How can ARCOLisboa prove distinctive? Examining the geographical distribution of galleries featured at ARCOLisboa since its opening, the majority have come from Portugal and Spain (with around 20 galleries each), along with the habitual representation (around 2 galleries) of other countries, mostly from Europe (Austria, Germany, Italy, Poland, and the United Kingdom) but also Brazil and Angola. Since 2019, however, the fair has had a special section called Focus Africa, which is devoted to African contemporary art.³² This section presents galleries dedicated to promoting contemporary art from Africa, making the most of Portugal's historical relationship with Portuguese-speaking countries in Africa and the growing international interest in African contemporary art. Although the six featured galleries could only ever be a symbolic representation of such a huge and diverse continent as Africa, where each country has its own distinct colonial history, this section serves as an opportunity to consolidate the identity of the boutique art fair concept and create a point of difference. It also helps to explain why IFEMA launched an extension of the art fair in Lisbon, that is, to create a platform for promoting and providing access to contemporary art from the African continent, seeking to grant it the same status as that enjoyed by Latin American countries.^{33,34}

Besides ARCOLisboa, it is worth mentioning Drawing Room Lisboa, a specialized art fair with a curatorial

concept that allows a maximum of three artists to be presented in each booth. Drawing Room Lisboa takes place in October, whereas ARCOLisboa is held in May. It aims to encourage a taste for contemporary drawing in all its forms while occupying a niche space by allowing galleries to present their artists.^{35,36} It launched in Lisboa in 2018, two years after the launch of Drawing Room Madrid and a year before JustLX: Lisboa Contemporary Art Fair,³⁷ the first ARCOLisboa satellite art fair, which is also run by a Spanish company and dedicated to encouraging emerging contemporary artists.

Considering that galleries are the most important intermediaries in the distribution of works of contemporary art,⁴ this study's findings demonstrate the development of art market infrastructures through the growing number of Portuguese art galleries and fairs over recent decades. Portuguese art galleries have systematically participated in art fairs globally and within Portugal, reinforcing the shift toward internationalization. These findings emphasize the leading role played by the private sector and represent opportunities to invest in contemporary art, thus repudiating claims of a lack of infrastructure in Portugal's contemporary art scene.

3.2. Museums and collectors

Museums, private art collections, and institutions contribute to promoting artists' careers and credibility in close conjunction with the market structures in the form of art galleries and fairs.⁴ Returning to the two key ideas on which we based this study's aim of identifying the local mechanisms capable of activating the primary art market and of leveraging them with regard to contemporary art, we now examine the role of contemporary museums and collectors in gathering works and promoting program contributing to the dissemination of artists' works and the publicizing of their achievements at an international level.

The Portuguese state has not provided consistent support to the visual arts sector. This lack of institutional support affects the development and visibility of Portuguese artists, a feature that distinguishes the Portuguese sector from its counterparts in wealthier countries with cultural policies. Nevertheless, it has recently created a program of acquisitions without the involvement of museums from the sector,³⁸ and its efforts to negotiate the acquisition of art collections amassed by banks that have declared bankruptcy³⁹ are noteworthy.

The limited involvement of the state in the visual arts sector has opened the way for the private sector to play a leading role. Since 2000, there has been an increase in cultural facilities receiving investments from the private sector, which has altered the dynamics of the art system

and the physiognomy of the host cities. This growth is in line with the international context. According to the Larry's List Private Art Museum Report 2023, there are 446 contemporary art museums in the world, of which 82% have opened after 2000.⁴⁰ Germany, Italy, the United States, South Korea, and China are among the countries with the highest number of new private museums. According to the report, Portugal has three such institutions. However, the list fails to include, for example, the Museu de Arte e Arquitetura e Tecnologia, which opened in 2016, or Casa São Roque Centro de Arte, launched in 2019.^{41,42} Moreover, if we consider the adoption of a mixed model that joins private collections with publicly managed buildings, the figure increases to 20 contemporary art museums that have opened in Portugal since the turn of the millennium.²¹

To put this number into context, we highlight three museums that have played a key role and act as models for private collectors. We focus on the scope of their collections, which represent international and Portuguese artists.

The first is the Centro de Arte Moderna (CAM; Modern Art Center), which opened in 1983. The CAM is a private museum run by the Calouste Gulbenkian Foundation based in Lisbon. The CAM is a leading institution for modern and contemporary art given the diversity of its collection, which covers Portuguese art from the 20th and 21st centuries, along with a relevant nucleus of British art from the 1950s – 1960s.⁴³ The richness of the collection, along with the updated program exhibiting living Portuguese and foreign artists, has made CAM a key institution for modern and contemporary art in Portugal and an example for artists, collectors, art agents, and the general public.

The second institution is the Museu de Arte Contemporânea da Fundação de Serralves, also known as the Serralves Museum. Located in Porto, the Serralves Museum is equivalent to the CAM in importance. It opened in 1999 in a building designed by Pritzker prizewinner Siza Vieira. The museum's management model is based on a unique partnership between the state and civil society, where the contribution from private financing equals that from the state. The opening exhibition, titled *Circa 1968*, made a statement about the concept behind the collection and the museum project.⁴⁴ The goal was to assemble a collection with an international scope based on the period 1965 – 1975, which was particularly eventful in Western art history. During that time, which encompassed the May 1968 Revolution, the institution of the museum received criticism, the status of the work of art was ontologically redefined and dematerialized, and its limits were extended. Artists used unexpected materials and technologies in

their creations, made interventions in the landscape, devised experimental languages, and confronted the public.⁴⁵ The aim of the collection was therefore to provide an international overview of this decisive era at the social and artistic levels, rather than present a chronological survey of acquisitions.

The third institution is the Berardo Collection, which exhibits modern and contemporary art and has been in the public realm since 1997². From its inception, the Berardo Collection's primary objective has been to establish a public collection that addresses the absence of public museums dedicated to modern and contemporary art in Portugal. The private collector assumed an institutional role one might traditionally expect to be fulfilled by the state. The collection's acquisitions initially focused on European and North American art from the 1960s, encompassing works representative of new figuration, minimalism, pop art, and conceptual art, sourced from auctions and international galleries. Over time, the collection's scope has expanded to provide a comprehensive representation of the 20th century. Francisco Capelo, an economist and collector, spearheaded the acquisitions program and the conceptualization of the collection.^{46,47} The collection is unique as a compendium of significant artists and movements from the 20th century, serving as a manual of Western art history with a historical overview. It is unparalleled in its quality and international scope among Portuguese museums of contemporary art. The Berardo Collection is remarkable for two main reasons: first, it features high-quality works by blue-chip artists and second, it reflects a commitment to the public realm, as outlined in a protocol with the Portuguese state. This commitment has had a persuasive effect on private collectors when negotiating the integration of their collections into the public sphere.

These collections, particularly the Berardo Collection, act as archetypes that are later followed by collectors. António Cachola, Pedro Álvares Ribeiro, Maria João Santos and Armando Cabral, José Lima, Fernando Figueiredo Ribeiro, and Armando Martins – all living Portuguese contemporary art collectors – have regularly collected contemporary art and shared their holdings with audiences, thus actively changing the Portuguese art ecosystem.

Collectors assemble works not only for their own pleasure but also to share them during their lifetime, rather than only after they have passed away, as used to be the case. This change in attitude is helping to create value in

² The Berardo Collection has been integrated into the MAC-CCB - Museum of Contemporary Art, since 2023, as the State did not renew the protocol with the collector.

the art system, shape tastes in society and the canon, and support innovative esthetic movements, besides exercising influence on public policies. Next, I examine three active collectors or collector duos – António Cachola, Pedro Álvares Ribeiro, and Maria João Santos and Armando Cabral – who have been gathering works with the aim of sharing them with the public.

First, António Cachola is a businessman who has assembled a comprehensive collection of contemporary Portuguese art, along with work by emerging artists, with works from the 1980s onward. At the turn of the new millennium, Cachola began discussions with the city council on opening a museum in Elvas, his hometown on the border with Spain. The institution opened in 2007 in an old hospital converted into a public museum, and the collection was loaned and established there. The new Elvas Museum of Contemporary Art (MACE) has had an ever-evolving program since then, aimed at disseminating knowledge of Portuguese artists, including among Spanish institutions. The 2022 program for the 15th-anniversary celebrations of the opening of MACE is particularly noteworthy. On this occasion, the museum turned to its wider network, inviting 24 institutions and various collectors to join in the celebrations⁴⁸ by presenting their collections in spaces across the town. The program paid tribute to the practice of collecting and the significance of the role that collectors play in the Portuguese art scene, thus arguing against the suggestion that their influence is inconsequential.

Second, businessman Pedro Álvares Ribeiro opened a museum in Porto in 2019 called the Casa de São Roque, Centro de Arte (House of St Roch, Art Center). This new space was previously a manor house favored by bourgeoisie wine producers. While the building belongs to the city council, the collector agreed to refurbish it to host an international contemporary art collection, thus creating a hybrid of private and public museum models. Since then, his collection has been exhibited through a program of temporary exhibitions. The collector is very committed to the art scene, having begun amassing works of art in the 1980s. He first loaned his works to the Serralves Museum in the 1990s.⁴⁹ His collection focuses on works by the Portuguese artists he loves (e.g., Ana Jotta, José Pedro Croft, and Rui Chafes) but also features Spanish and Polish artists.

Finally, Maria João Santos and Armando Cabral are a couple who launched Rialto6 in Lisbon in 2019. This is a private project: they open their own house to the public on specific days of the week through a program of eclectic contemporary exhibitions. The couple is highly committed to contemporary art and is keen to make themselves “useful

to the art world”.⁵⁰ In particular, they aim to contribute to the global recognition of Portuguese contemporary art. To this end, the collectors invite international artists, curators, and collectors; create events; and promote discussion of topics related to art and the art ecosystem. Along with the exhibition program, works from the couple’s own collection are often on display.⁵¹ Their collection covers a vast range of materials from contemporary visual arts, particularly videos, installations, and photography.

4. Discussion

This study gathered comprehensive data to analyze the specific features of and gain deeper insights into the dynamics of a small-scale art market. Utilizing the conceptual framework of the Global South as an operative tool to discuss markets from a region that previously lacked a supportive infrastructure, the applied methods (a literature review, reports, and questionnaires, combined with field research and interviews) enabled the identification of the main infrastructures of the primary art market in Portugal. The development observed has followed the international growth of the art market from the 1960s onward on a scale commensurate with Portugal’s size.

This study also identified a permanent tension among the art market players. The data show small-scale, local buyers in their *métier*. The art market’s size and the scope of collections, which prioritize acquisitions of works by Portuguese artists and thus support the local art scene, may seem like a collecting practice that is distinctive from regions of the Global South. In addition, collectors may be led to focus on emerging artists, who are not yet established in the art system, due to economic constraints and lower prices, allowing them to support new talents (Cachola/MACE). Moreover, a sense of responsibility toward the art milieu was identified. Collectors’ actions may be driven by a desire for community impact and using alternative venues for displaying their collections. Collectors tend to make art accessible, be engaged in collaborative practices, and work closely with artists, other collectors, and cultural organizations (Rialto) in a collaborative manner, ultimately helping build networks. This resilience and adaptability allow collectors to pursue creative pursuits and sustain their collections. Understanding this distinctive practice helps us appreciate the unique contributions that collectors make to the art world.

Simultaneously, however, efforts to gain international audiences and recognition have also increased. Systematic participation by Portuguese gallerists in international art fairs is one such measure, which has the aim of reaching international collectors, curators, and museum directors. The programs developed by galleries also consider

this purpose, placing Portuguese artists beside their international peers.

Locally, the launch of new art fairs such as ARCOLisboa or Drawing Room Lisboa are tools for gaining international recognition and challenging global large-scale events by opting for a boutique concept and a strategy of distinctiveness, such as a focus on Africa. Thus, the art produced by contemporary artists from the so-called Global South thus finds an opportunity to be exhibited alongside those produced by their peers, bringing a sophisticated, rigorous artistic production; diversity; and the African diaspora into the semi-peripheral art market. Making the most of Portugal's historical relationship with Portuguese-speaking countries in Africa, ARCOLisboa acts as a stage for contemporary African art while using this feature to set itself apart from other art scenes.

Furthermore, the private sector, particularly in terms of living Portuguese collectors, has played a leading role in supporting the visual arts through collecting art and opening new art museums. In this regard, the lack of institutional support from the Portuguese state has paved the way for private initiatives. Following institutional models such as the CAM, the Serralves Museum, and the Berardo Collection, where the private sector played a predominant role, living Portuguese collectors have contributed to transforming Portugal's institutional art scene, approximating international trends in elevating private cultural facilities. In terms of the contents of such collections, there has been a marked investment in foreign artists (especially in the case of Pedro Álvares Ribeiro, Maria João Santos, and Armando Cabral), which has altered and brought an international dimension to collection narratives. Contemporary Portuguese collectors are increasing in number and boosting the local market. The institutions they helped create have transformed the art scenes in Lisbon and Porto, serving as platforms for the local and international recognition of artists.

Given their significant role in nurturing and influencing the artistic landscape, private collectors can be seen as driving forces behind the art market in Portugal. Over time, they have broadened the scope and focus of their collections to include international content and encompass artists from Europe, North America, and regions from the Global South.

At this stage, returning to the research question regarding the extent to which a semi-peripheral art market can contribute to the transformation of such markets at a global level, we argue that observing small-scale art markets provides an opportunity to understand the struggle between local and international activities,

the markets' hierarchies, and a segmented approach to operating and deconstructing notions of irrelevance or inactivation. Meanwhile, the feature of distinctiveness and the unique characteristics of domestic markets fuel the Global South as a heterogeneous system and an operative research concept.

5. Conclusions

Returning to the core issues of this article, knowledge of markets outside of the main axis remains highly fragmentary, which means that blind spots might exist in the literature with respect to integrating research initiatives and fostering an understanding of art markets. Studying markets from the Global South reveals unique and dynamic new markets as well as a more comprehensive understanding of the functioning and interconnections of markets from semi-peripheral regions. The youthfulness and dynamism of the Portuguese art market show that despite being characterized by a precarious structure, it has remarkable flexibility, resilience, and innovative capacity, standing in contrast to the hierarchical ties of global art markets, bringing production from distinct latitudes into a semi-peripheral market, and assuming a small-scale dynamic. All of these are qualities that contribute to its adaptability and evolution within the larger art ecosystem. Ultimately, we are convinced that researching the mechanisms of activation in the Portuguese art market clearly points toward the expansion of the Global South as a field of research.

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ARTICLE

Digital and AI transformation in the contemporary art industry in China

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Abstract

This study examines the digital and artificial intelligence (AI) transformation in the contemporary art industry in China. This industry in China is undergoing a distinct digital transition and is “ahead” of other countries, having fully integrated digital technologies and AI (digiAI) into policies, regulations, organizations, and professional practices. A systematic, large-scale national integration of digiAI has led to its widespread adoption by artists and arts professionals. However, little is known about how or when this rapid and extensive integration and subsequent adoption occurred or about its impacts on professional practices. This study draws on research conducted between 2023 and 2024, including 30 interviews with contemporary Chinese visual artists, 23 interviews with arts professionals, a survey of 110 professional contemporary visual artists, and a systematic review of government policy. Findings indicate that the government began integrating digital technology into the contemporary art industry in 2016, further promoted digital technology integration in 2021, and introduced regulations to support AI usage in 2023. The data reveal a significant spike in the adoption of digital technologies by professionals between 2019 and 2020, followed by a rise in AI adoption in 2023. DigiAI has been accepted and now used across different kinds of arts professions, various types of visual artists, and several age groups. Digital and AI tools are now being applied in both creative and non-creative aspects of arts practices.

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(emmaduester@sjtu.edu.cn)**Citation:** Duester E, Zhang R. Digital and AI transformation in the contemporary art industry in China. *Arts & Communication*. 2025;3(2):3822. doi: 10.36922/ac.3822**Received:** June 3, 2024**Revised:** August 20, 2024**Accepted:** September 3, 2024**Published online:** October 21, 2024**Copyright:** © 2024 Author(s). This is an Open-Access article distributed under the terms of the Creative Commons AttributionNoncommercial License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.**Publisher's Note:** AccScience Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.**Keywords:** Contemporary visual artists; AI; Arts professionals; Digital technologies; Digital transformation; Contemporary art industry; China

1. Introduction

Digital technologies and artificial intelligence (digiAI) are reshaping professional practices across various industries. Digital transformation is transforming many industries, including art,^{1,2} music,³ hospitality,⁴ and sports.⁵ Discussions on this transformation typically focus on the importance of AI integration for industry development, its potential to generate economic benefits, changes in job roles, and improvements in efficiency and accuracy. For example, Glebova *et al.*⁵ argued that artificial intelligence (AI) integration in the sports industry will transform jobs by automating routine tasks and create new roles that merge digital or AI skills with sports knowledge.^{5,6} Similarly, AI in the hospitality industry is predicted to drive economic growth, enhance operational

capacity, and restructure work processes.^{7,8} The integration of digiAI in contemporary art is evident in the creation process of artworks,^{9,10} the totalizing nature of digital work for artists, given that they are always working due to promotion, sharing, and selling their work on social media,¹¹⁻¹³ and digitization of art markets.^{14,15}

This digital transformation involves restructuring practices and production processes, with the introduction of non-human agents in the creative process. These changes emphasize dialog, iterative communication, prompting, and collaboration with nonhuman agents. DigiAI is changing how art and exhibitions are produced, as well as how artists and arts professionals work. AI provides artists with accuracy in tasks like coding and creating text or scripts. Artists feel more powerful when using digital software and AI programs because they have a digital team with them to perform tasks quicker and more accurately.^{16,17} Hisrich and Soltanifar¹⁸ argued that pervasive digitization generates new opportunities while transforming how ideas are developed and how creative tools are applied. In response, recent discussions have focused on the relationship between artists and digital technologies, particularly concerning human creativity.^{19,20}

The pace and breadth of digiAI integration into the contemporary art industry in China are distinctive. China has taken a unique path in digital transition compared with other countries, having already established industry 5.0 and begun work on 6G internet. These rapid digital developments are driven by government policies and regulations that promote the use of digiAI among individuals and organizations. Over the past 30 years, the contemporary art industry in China has experienced rapid change, with its development intertwined with societal and policy contexts.¹ A driver of change was, as De Nigris²¹ argues, governmental push for cultural institutions to assume greater financial responsibilities and to directly respond to market demands.²¹ Similarly, today's digital transition in the art industry is interconnected with sociocultural, technological, political, and economic factors.

¹ The most important societal change that initiated the launch of the contemporary art industry was the rapid economic development in the 1990s. This was a time when capitalist joint ventures and private companies developed and subsequently became level with state-owned enterprises, leading to social and economic reform. Another key change in the history of the contemporary art industry was the introduction of a two-strand structure of state-owned and private companies working alongside each other, filtered into the contemporary art world, which allowed it to become an economic, commercial industry.

Much of the discourse on digital transition in the art sector has focused on the digitization of cultural heritage and museums;^{22,23} technological affordances of virtual reality and augmented reality and the use of games for presenting digital culture;^{24,25} separate analyses of AI and digital technologies,^{20,24} macro-level industry and economic developments;²⁶ and analyses of changes within the industry.⁵⁻⁷ This study provides a humanistic analysis of the contemporary art industry within a predominantly techno-deterministic discussion, emphasizing the broader societal context. When examining the digital transition in the contemporary art industry and the potential for integrating digiAI, it is essential to understand how broader societal factors contribute to creating a conducive environment for widespread integration, adoption, and acceptance. Furthermore, professional use of digiAI must be discussed and analyzed as digiAI is being increasingly used for creating artworks and exhibitions.

This research draws on 30 interviews with contemporary Chinese visual artists, 23 interviews with arts professionals from the Chinese Academy of Sciences, a survey of 110 professional contemporary visual artists, and a systematic review of Chinese government policies. This research, conducted between 2023 and 2024, addresses the following questions: (1) How has digiAI been integrated into the contemporary art industry at the national level? (2) How has digiAI been adopted and accepted by artists and arts professionals? The overarching aim is to assess the extent to which digiAI can be integrated while maintaining human creativity and innovation and explore the development potential of digital transformation.

This study presents Western and Chinese perspectives on the digiAI transition in China's contemporary art industry. It highlights the optimistic embracing attitudes of Chinese artists and arts professionals toward digiAI and contributes to ongoing discussions about the relationship between human creativity and these technologies in the arts. This study addresses how digiAI can be integrated into the contemporary art industry to enhance rather than hinder professionals' creativity. It elucidates the nature of the current digiAI transition in China's contemporary art industry, which is important given the limited understanding of how policies and widespread technological integration affect professionals' adoption and acceptance of digiAI, as well as the resulting digital creation processes. While concerns exist about the potential of digiAI to undermine human creativity, more discussion is required on how these tools can foster the development of the contemporary art industry from the perspectives of artists and art professionals. This new knowledge can serve as a guide for professionals in contemporary art industries

worldwide, assisting in the creation of policies for digiAI integration and ensuring job security and sustainability.

2. Data and methods

This study documented the digiAI transition in the contemporary art industry in China. It aimed to understand how these technologies have been integrated nationally and how they have been adopted and accepted by artists and arts professionals in their practices. The overarching goal was to determine how professionals can adopt digiAI while maintaining creativity and innovation and how the contemporary art industry can evolve along with this transition. The research objectives were as follows: reviewing national-level policies to understand how the Chinese government is directing the pace and breadth of digiAI integration into the contemporary art industry; surveying artists to determine when and how they adopted, accepted, and started using digiAI; and consulting with arts professionals about their views on the digital transition in the contemporary art industry, including the social factors influencing this transition, their thoughts about working with digiAI, and impacts on their practices.

This study employed a mixed-methods approach, as outlined in studies on industry development,^{27,28} including qualitative interviews, a quantitative survey, and a systematic review of government policies. The methodology involved analyzing government policy documents and individual perspectives and combining first-hand interviews, survey data, and secondary policy data. This combination was chosen to achieve the breadth and depth of knowledge necessary to adequately address the research questions. This approach is also referred to by Edwards *et al.*²⁹ as the “breadth-and-depth method,” which allows for detailed data analysis while maintaining awareness of the societal context.

Thirty semistructured interviews were conducted with contemporary visual artists, including painters, video artists, multimedia artists, sculptors, new media artists, internet artists, and photographers. The inclusion criteria were as follows: participants were Chinese nationals currently working in the contemporary art industry in China, residing in China, and had graduated from an art school, academy, or university. Interviews were conducted between May 2023 and February 2024, covering topics such as how and when professionals adopted and accepted digital technologies in their practices, their relationships with these technologies, and their perceptions of technology use. The age range of participants was 27 – 59 years. The study sample provided a broad perspective on the use of digiAI and allowed an examination of how practices in the contemporary art industry have evolved. [Table 1](#) presents

Table 1. Information about visual artists interviewed in this study (ages are accurate as of the interview date in 2023/2024)

Profession	Age	Gender
Artist (public and sculpture)	31	Female
Artist (painting)	36	Female
Artist (installation/sculpture)	39	Female
Artist (sculpture)	27	Female
Artist (video) and business owner of art community	42	Male
Artist (public artist)	28	Female
Artist (sculpture)	45	Male
Artist (video and installation)	30	Male
Artist (sculpture)	33	Male
Artist (multimedia artist)	33	Male
Artist (film, drawing, and performance)	36	Male
Artist (sculpture)	59	Male
Artist (mixed-media)	30	Male
Artist/visual designer (mixed-media)	28	Female
Artist (painter) and art space director	35	Male
Artist (printmaker)	61	Male
Artist (new media, game art, and video)	28	Male
Artists (digital and internet)	25	Male
Artist (mixed-media)	20	Female
Artist (multimedia)	34	Male
Artist (video and metaverse)	39	Male
Artist (sculpture)	28	Female
Artist (multimedia)	29	Male
Artist (multimedia)	34	Female
Artist (painting)	42	Male
Artist (multimedia)	26	Female
Artist (photography)	34	Male
Artist (photography)	30	Female
Researcher/artist/curator	32	Female
Artist (sculpture and installation)	35	Male

information about the visual artists interviewed in this study.

Twenty-three semistructured interviews were conducted with arts professionals, including curators, gallery owners, art community directors, and museum workers, who worked in the contemporary art industry (as opposed to the cultural heritage industry or science museums), had graduated in their respective fields, and lived and worked in China. This population provided a broad understanding of current trends and digital practices in the contemporary art industry, allowing us to confirm and contextualize contemporary visual artists' interview

responses. These interviews were conducted between May 2023 and February 2024. In order to assess broader digital trends in the contemporary art industry, the questions posed to arts professionals differed from those posed to visual artists. Table 2 presents information about the arts professionals interviewed.

Interviews were conducted in person at the artists’ studio, art galleries, or art museums,²⁴ online through videoconferencing,²¹ and in writing through email,³ depending on the interviewee’s preference. The researchers recruited interviewees through snowball sampling. Initial contacts were made through visits to art galleries and art museums in Shanghai, where researchers were based. Conversations with arts professionals (members of staff or independent visual artists) were initiated by sharing information about the research project and asking interested individuals to participate in the research. After each interview, the researchers requested interviewees to share additional contacts of arts professionals. The researchers also reached out to art community founders to ask for contacts of potential interviewees. Initial contacts acted as gatekeepers; however, as all interviewees were from different organizations or were independent artists, no official “site” gatekeeper approval was required. All interviewees provided consent to be included and named in this paper.

Next, a survey was administered to professional contemporary visual artists in China between February and April 2024. The goal was to determine when artists started using digital technologies and when they first used AI, which digital tools and AI software they currently use, and their experiences of using AI. The survey contained 35 questions, and 110 participants completed the survey. The sample was stratified to include only professional Chinese contemporary visual artists living and working in China. The survey was distributed through social media platforms and nationwide online art groups, including Yimo art group, RaidenINST, Super Topic of Digital Art, and Super Topic of New Media Art on Weibo. The survey was shared in these online groups, forums, and super topics after permission was obtained from group administrators. Participants accessed the survey through a QR code, which directed them to an introduction page that outlined the research and its aims, explained key terms in the survey, and described the participation criteria. Participants provided consent by ticking a box. Figures 1-3 present details about the age, gender, and residence of the survey participants, respectively.

The researchers conducted a systematic review of government policies implemented between 2016 and 2023. The review covered topics such as the contemporary art

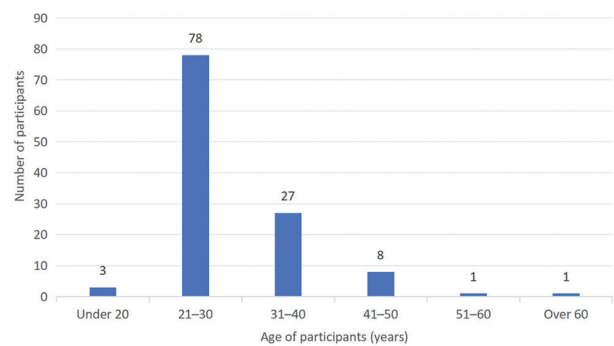


Figure 1. Age of survey participants

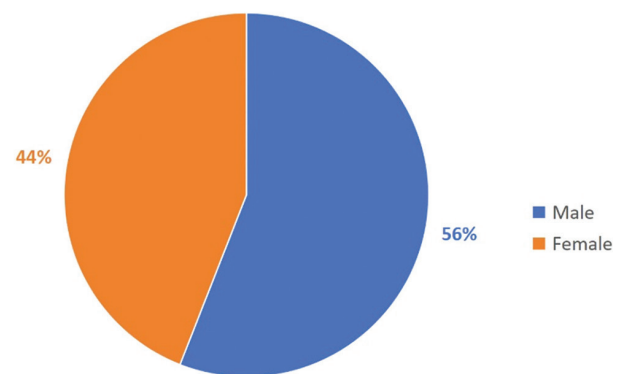


Figure 2. Gender of survey participants

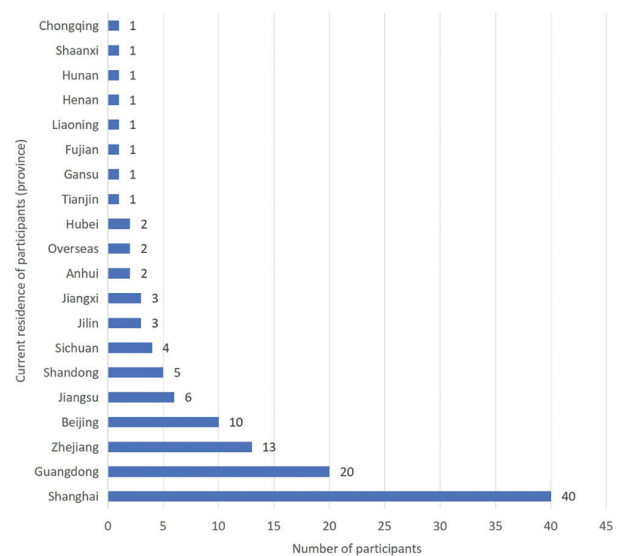


Figure 3. Residence location of survey participants

industry, cultural development, digital development, and AI. The keywords used for sorting and filtering documents included “digitization,” “cultural development,” “AI,” “digital technology,” “contemporary art industry,” “artists,”

Table 2. Information about arts professionals interviewed in this study (ages are accurate as of the interview date in 2023/2024)

Profession	Age	Gender
Commercial contemporary art gallery owner and director	50	Female
Contemporary art museum worker, education department	25	Female
Commercial contemporary art gallery owner and director	51	Female
Contemporary art event organizer	27	Female
Contemporary art foundation exhibition manager	24	Female
Curator	27	Male
Contemporary art gallery worker	47	Female
Contemporary art center staff, business development department	29	Female
Contemporary art gallery exhibition manager	30	Female
Art community and art business manager and founder	35	Male
Contemporary art foundation curator	32	Female
Curator	40	Male
Contemporary art museum curator	46	Female
Contemporary art museum executive vice director	45	Female
Curator	39	Male
Curator	37	Female
Curator, museum worker, and culture policymaker	31	Female
Art hub director	36	Male
Curator	24	Female
Curator at art museum	27	Female
Creator of digital art management system	28	Female
Founder and director of art gallery	45	Female
Assistant to art gallery director	40	Female

and “artwork.” Relevant documents were organized by date, section (e.g., topics such as AI, culture, integration of digital technology, and cultural development), and type (laws, policies, strategies, and 5-year plans). These documents were analyzed in relation to the aims of the research project.

Two researchers worked on the project to improve reliability in data collection and analysis. Interviews were conducted in Chinese and English to enhance data quality and to maintain ethical standards. The interviews were translated into English and cross-checked by two Chinese research assistants to improve translation accuracy. The survey was written and answered in Chinese, and the responses were translated into English by the two research assistants. Both researchers analyzed the interview data. Before analysis, the researchers discussed the research aims, objectives, and questions, which helped guide the data analysis. The researchers preprocessed the responses, filtering out invalid or erroneous questionnaires. Codes were created to organize and sort the data. After each researcher completed their individual analysis, the data

were combined and sorted, duplicates were removed, data weighting was performed, and common themes and trends were identified. A statistical analysis of the response frequencies was then conducted. Excel was used to calculate the frequency of each categorical variable in the responses for each question, allowing researchers to understand the distribution and preferences of respondents.

3. Digital and AI transformations in the art industry

The contemporary art industry in China has long been influenced by the country’s broader cultural, economic, and political ecosystem. As De Nigris²¹ argues, the development of the art world relates to the nature of China’s economic development. Meanwhile, Gladston^{30,p.57} notes that “during the last decade, 2000–2010, the CCP has been interested in contemporary forms of cultural production as a focus of economic development...the connection between what those producing and showing art and the wider economic and social context is especially close in the PRC...art is now bound up with government policy.”

Bin³¹ discusses how AI has rapidly developed in recent years due to the government's efforts toward network technology development and science and technology innovation. These efforts have led to the emergence of AI virtual characters, AI art, new artistic forms and aesthetic forms, and expansion of existing cultural spaces and artistic expression within the art industry. While some scholars have discussed Chinese art in relation to society and life,^{31,32} this discussion needs to be updated.

Moreover, discussions on the art industry and the integration of art and technology often focus on either the final digital artwork or the technological foundations of digital art. For instance, a significant portion of literature addresses digital aesthetics and techniques of digital art³³⁻³⁵ or AI art.³⁶⁻³⁸

In terms of the digiAI transition in the art industry, scholars have highlighted the positive effects of digitization on culture, particularly how digital platforms serve as gateways for cultural accessibility and how digitization can unlock the economic potential of art.^{39,40} Scholars have also examined the integrative capacity of digital art, noting its ability to connect different mediums (such as videos, paintings, and games) and industries (such as music, film, and theater). Ho⁴¹ argued that digital art can integrate multiple creative forms such as movies and television programs, creating vast opportunities for economic and cultural growth in China. Paul³⁷ echoed this idea by suggesting that digital art serves as a tool and medium enabling the "seamless combination of art forms and a blurring of the boundaries between different mediums."

There are two contradicting discourses about the impact of digiAI on art and artists. A technological determinist view of human relationships with nonhuman agents posits that AI and digital technologies are sentient,⁴²⁻⁴⁴ and capable of creativity and may eventually replace human artists.^{38,42,45} Chatterjee⁴² proposes that AI develops sentience through deep learning architectures, while Lavelle⁴⁶ and Husain⁴⁷ argue that sentience emerges from programming and computational power. Scholars such as Miller⁴⁸ further argue that AI possesses creativity, stating that as "a consequence of AI developments, machine creativity exhibits traits customarily assigned to humans." Similarly, Zeilinger^{38,38} contends that AI is sufficiently creative to produce art after being trained on sample material to learn the core principles of artwork generation, posing a potential threat to human artists and their livelihoods. Kasparov⁴⁹ also claims that AI systems surpass human intelligence and can autonomously complete the creative process through deep learning and imitation of human behavior.

These theorists' conceptions of the future after the digital transition suggest that technology will directly

influence the art industry. Advances in AI have led to increased dissemination from a technological determinist perspective, following the idea that technology advances through internal logic and directly influences humans and industries.^{50,51} However, an opposing body of literature has argued that humans have agency when interacting with digiAI. Scholars have focused on digital art practices,⁵²⁻⁵⁴ artists' creativity in these practices,^{19,55} the relationships between artists and AI during creation processes,^{20,42,55} and how digiAI enhances artists' creativity, efficiency, and productivity.^{20,55} For instance, Zhou and Lee⁵⁵ explore how AI fosters creativity alongside artists' abilities to produce creative outputs, noting that "ideation and filtering are necessary skills in the text-to-image process, giving rise to 'generative synesthesia'—the harmonious blending of human exploration and AI exploitation to discover new creative work processes." Mazzone and Elgammal²⁰ explain the affordances of partnering with AI for artistic creation as follows: "We advocate for a connection between machine creativity and art broadly defined as parallel to but not in conflict with human artists and their emotional and social intentions of art making. Rather, we urge a partnership between human and machine creativity when called for, seeing in this collaboration a means to maximize both partners' creative strengths." Mazzone and Elgammal²⁰ further argue that AI serves as a tool in art creation, where "the artist presides over the process." They also suggest²⁰ that research should focus on the entire creative process, not only the final images, as this *activity* highlights artists' agency and decision-making roles, such as curation and tweaking, within the creative process.

4. Results

4.1. Role of the government in promoting the integration and use of digiAI in the Chinese Academy of Sciences

Policies for the integration of digital technology into the contemporary art industry were introduced in 2016. Since then, the Chinese government has developed the cultural industry, viewing it as a crucial part of national economic development. Since the 12th 5-Year Plan period (2000 – 2005), with the ongoing application of and advancements in digital technology, the integration of digital technology into culture has progressively improved, giving rise to new modes of digital culture created using these technologies.

In its 13th 5-Year Plan (2016 – 2020), China sought to align with the global trend toward an "information society." New revolutions in technology and industry were underway, characterized by a new trend toward industrialization and information technology adoption. The 13th 5-Year Plan identified AI as essential for economic growth and

innovation-driven development, ensuring the flourishing of business start-ups and improvements in productivity. In addition, science and technology became more deeply embedded in the economy, with breakthroughs made in core technologies across key sectors.

In 2021, the Chinese government outlined the “14th 5-Year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035,”⁵⁶ emphasizing the acceleration of digital development and construction of a “Digital China.” This plan prioritized comprehensive digital transformation, reshaping production modes and fostering key industries within the digital economy, including AI, virtual reality, and augmented reality. It also aimed to establish general and industry-specific open AI platforms. The 14th 5-Year Plan states that “technology will be central to the development of the cultural industries—technology will empower the development of the cultural industry, the development of new business formats will be strong, and culture will be deeply integrated with tourism, sports, commerce, rural revitalization, and other fields.”⁵⁷

In the same year, the Ministry of Culture and Tourism issued the “14th 5-Year Plan for Cultural and Tourism Science and Technology Innovation,” advocating for cultural development through technological innovation and promoting experiential technologies in the cultural field. This plan encouraged the development of technologies involving human-computer interaction and mixed reality, supporting the innovative application of intelligent technology in the culture and arts sectors. The plan also proposed the development of intelligent tools to assist in creative processes and the creation of cloud exhibitions and digital art, among other emerging developmental directions. Furthermore, the Ministry of Culture and Tourism released the “14th 5-Year Plan for Artistic Creation”⁵⁸ in 2021, which proposed the integration of technology into arts, music, fine arts, and drama to intensify the application of digital technology in artistic work.

In 2022, the White Paper on the Development of Beijing’s Cultural Industries stated that “cultural organizations will go through digital transformation. They should actively explore and integrate new technologies into their organization.” In addition, the paper emphasized that art and other cultural products should use digital technologies and new media platforms to present traditional culture.⁵⁹

By 2023, the Central Committee of the CPC and the State Council issued an “Overall Layout Plan for the Construction of Digital China,” specifying the national strategy for cultural digitalization. This plan advanced the construction of digital culture through major

breakthroughs in digital technology innovation and international cooperation in this field. By 2035, China aims to dominate digital development globally by formulating measures to promote the high-quality development of the digital industry and building an internationally competitive digital industrial cluster. This involves constructing a national cultural big data system; forming a database of Chinese culture; establishing several comprehensive digital cultural exhibition platforms; and developing new types of cultural enterprises, business models, and consumption patterns in the cultural industry.

The Chinese government has directed national-level developments in AI since 2016.² In 2022, the Ministry of Science and Technology, along with five other departments, issued the “Guiding Opinions on Accelerating Scenario Innovation to Promote High-Quality Economic Development through High-Level Application of Artificial Intelligence.”^{60,3} On July 13, 2023, the government issued directives regarding generative AI,⁶¹ which came into effect on August 15, 2023, to promote and simplify the use of AI for individuals and organizations.⁴

4.2. Recent adoption and use of digiAI

² For instance, the 13th 5-Year Plan (2016 – 2020) specified AI as key for achieving economic growth and the 14th 5-Year Plan (2021 – 2025) outlined a plan for continued state investment in AI. In 2017, the Government introduced a vision for the development of AI in the Next Generation Artificial Intelligence Development Plan (新一代人工智能发展规划). The Plan outlined the national strategy of using AI for socioeconomic development and creating an AI industry that positions China as the world leader in AI by 2030, with the country emerging as the global leader in defining standards for AI.

³ This document proposes the creation of major AI scenarios, enhancement of AI scenario innovation capabilities, acceleration of the creation of AI scenarios, and strengthening the supply of innovative elements in AI scenarios.⁶¹ The policy aims to drive the development across various industries by promoting the practical implementation of AI and fostering innovation in AI scenarios. In 2023, the Cyberspace Administration of China, along with seven other departments, jointly passed and officially released the “Interim Measures for the Management of Generative Artificial Intelligence Services.”⁶¹ This regulation sets standards for cultural institutions and artistic activities that provide services using generative AI in China. The regulation actively encourages the development of generative AI on the basis of legality and compliance.⁶¹

⁴ The objective of the Interim Measures is to regulate generative AI, which is primarily designed to generate content and promote the use of AI for national economic development, ease of use, and business and individuals’ innovation.

In the interviews conducted in this study, arts professionals recognized the direct impact of the societal context on their creative processes and acknowledged the rapid and widespread digital transformation in the arts. They felt the need to continuously adapt to new digital technologies and described how they have so far navigated the shift to a new digital environment. Ivey Lin, executive vice director of the Xi'an Qujiang Museum of Fine Arts, said, "because now the country is talking about digitalization, culture plus technology, strategically digitizing everything. This is a big strategy of the country, so it is necessary for us to do it." Jenny, a curator at the Longlati Foundation in Shanghai, highlighted China's unique approach: "In China, we have a very unique condition in terms of how the public interacts with new digital technologies [...] We have transformed much of our daily tools into virtual ones; it is advanced in global terms." Chang, exhibition manager at the Fosun Foundation in Shanghai, notes, "This willing energy is quite specific to China. You must adapt to succeed in this new digital and rapidly changing environment."

Over the past decade, the most significant spikes in the uptake of digital technologies occurred in 2020, 2022, and 2023, as shown in Figure 4. While this finding aligns with global digital transformation trends and policies related to the integration of art and technology, it is also connected to the increased use of digiAI during the COVID-19 pandemic. The pandemic allowed artists and arts professionals to familiarize themselves with digiAI, experiment with creative combinations of software and AI programs, and take online courses to develop new digital skills. Wang Yiquan,⁵ a curator and artist, reflects: "in the past 2 – 3 years, I have learned more about and used more digital technologies, including AI. Because of COVID, the physical path was not possible."

In 2023, 21 of the surveyed artists started using AI, representing an increase compared with the previous years: 18 in 2022, 9 in 2021, and 19 in 2020.

⁵ Wang Yiquan (b. 1987) is an artist, curator, and designer based in Shanghai. He is one of the founding partners of Acts and Pathways, which is a design company that he established in 2018 with designer Wu Jiayin. His research interests as a curator focus on the relationship between the city and art as well as the relationship between art and the economy. He has contributed to a wide range of urban spatial design and research projects in Shanghai, Beijing, and Hangzhou. Wang Yiquan received his BA in Journalism from the Beijing International Studies University. He also studied Visual Communication Design at the Central Academy of Fine Arts in Beijing and completed his MA in Narrative Environments at Central Saint Martins in London. Yiquan is originally from Beijing and now lives and works in Shanghai.

In addition, 94% of the survey respondents used digital technologies in various aspects of their creation processes. Popular software include Unity, Unreal Engine, Visual Code, Miya, and Blender. The survey respondents reported using digital technologies for a range of purposes: 19% for creating visual arts, 15% for design, 11% for clipping images, 11% for inspiration, 9% for rendering purposes, and 9% for special effects (Figure 5).

Furthermore, 87.5% of the artists and arts professionals interviewed used AI in at least one stage of the creation process. Of the 22 interviewees, seven used AI throughout their creation process, three used it for image creation, five for debugging code or creating video scripts, three for writing scripts for final art pieces (particularly video artists), and two for research. The results indicate that digiAI is being used for creative tasks such as idea generation and inspiration rather than for merely non-creative tasks such as data processing or sorting (Figure 6). Specifically, 26% of the survey respondents used AI for idea generation, 22% for inspiration, and 20% for artwork production. For

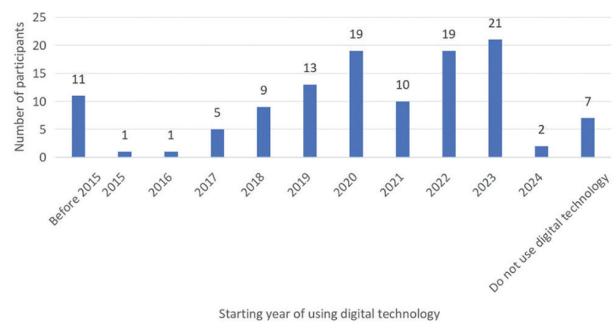


Figure 4. Starting year of using digital technology

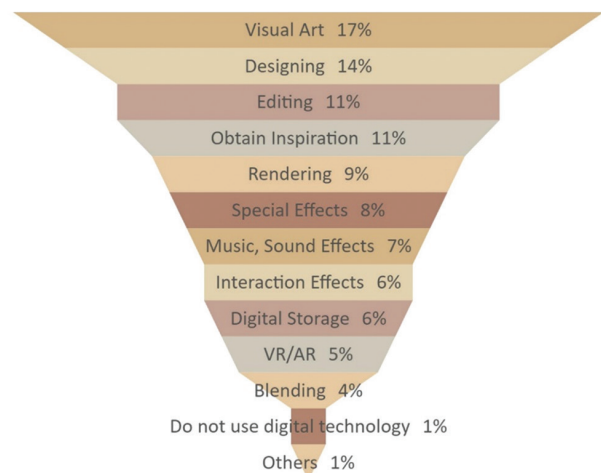


Figure 5. Participants' use of digital technology in the creation process
Abbreviations: AR: Augmented reality; VR: Virtual reality

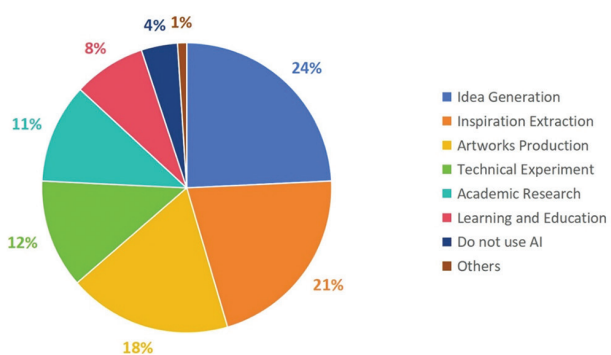


Figure 6. Participants' uses of artificial intelligence in the creation process

noncreative tasks, 12% of respondents used AI for testing and 11% for research.

The most popular AI program among surveyed artists was ChatGPT, followed by MidJourney, Stable Diffusion, Dall-E, and Sora (Figure 7). For example, artists used ChatGPT to create poems or scripts for their final artworks by inputting their code or existing text and allowing the AI to generate creative content. Many artists understood the unique capabilities of each AI program. For example, some preferred DALL-E for its ease of use, whereas others used MidJourney for its powerful processing capabilities or Stable Diffusion for the creative control it affords to the artist. As Wang Xin⁶ said, "I use Stable Diffusion a lot because you can control it better and you can train it yourself." CHILLCHILL added, "Stable Diffusion allows you to use it as a base and you can describe the video and do some cyberpunk and punk, and then you can turn the video into another style. You can change the way and style of the video."

Artists and arts professionals often combine AI with other digital software, distinguishing between the two

⁶ Wang Xin (b. 1983) is an artist who is based in Shanghai. Her work focuses on the topics of the status of the artist, the functioning of the art market, and the use of AI for hypnosis therapy. In 2016, Xin had a solo show at the de Sarthe Gallery, Hong Kong, titled "Every Artist Should Have A Solo Show." Some of her works include commentary about her own position in and relation to the art world, with a certain sense of humor. Her second solo show, titled "The Must-See Art Show Where You Can Find 10,000 Artists," exhibited at de Sarthe Gallery, focuses on the functioning of the art world. Both exhibitions include interactive, site-specific installations. Wang is also a certified hypnotist and has explored using hypnosis in her art with the use of AI. Wang received her BFA from China Academy of Art in 2007 and MFA from the Art Institute of Chicago in 2011. Wang is from Yichang, Hubei, and currently lives and works in Shanghai.

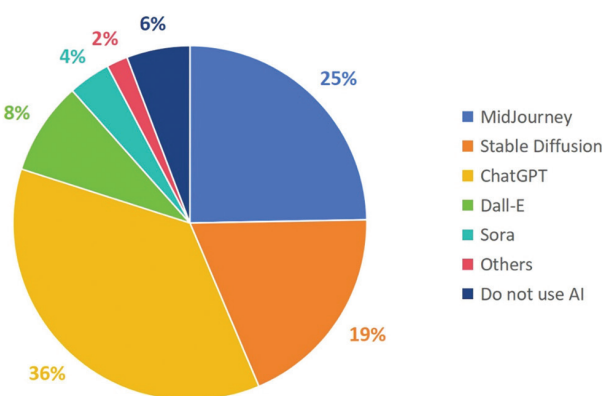


Figure 7. Usage of different artificial intelligence technologies

but recognizing how combining digital tools with AI can enhance creativity and innovation. CHILLCHILL said, "I think AI has its own beauty, aesthetic, and style, totally different than 3D software and rendering."⁷ Maggie Chen explained, "I use machine learning for idea creation, and I use rendering and modeling for visualizing the thing. I use Blender and some mixed with Photoshop for generating the exhibition view."⁸ Wang Xin added, "I use many digital software. I use AI for debugging my code, I use Unity for video to make a virtual reality, I use Blender used for 3D modeling, and PremierPro and Photoshop." Artists feel empowered by AI, believing it gives them more freedom and enhances their creativity. CHILLCHILL reflected, "I get more freedom because now I can add more things inside and it changed my work a lot, made more freedom. [...]. The creating part with AI and digital software is more

⁷ CHILLCHILL (b.1990) is a digital artist and 3D animator. He also works in the club scene to exhibit his artworks. His artworks have a digital aesthetic and feature a dystopian exploration of present-day and future society. A recurring theme in his work is the "share economy," which is represented in examples of Mobike and Alipay. He graduated from Sichuan Fine Art Institute after studying Oil Painting. Several key galleries and museums have exhibited his work, including Ota Fine Arts, Shanghai. He is originally from Beihai and currently lives in Shanghai.

⁸ Maggie Menghan Chen (Maggie) (b. 1998, Beijing) is a sculptor and mixed-media artist. She lives and works in Beijing and London. She obtained her MA in Fine Art from Chelsea College of Arts following her BA in Art History from New York University. Maggie Menghan Chen explores the growth and metamorphosis of life in her sculpture works. Chen creates surreal sculptures that combine real and nonreal elements. A lot of her inspiration comes from flora and fauna. Chen also sees her work as metaphors for the human psyche. The ferocity of beasts and fragility of flowers represent the struggle between aggression and sensitivity in the human mind.

fun to me, because I can combine image, video, music, and then it's like the whole performance. I really get used to using digital technologies.” Wang Xin agreed, “I think AI can help to make me more creative and push artists to do much more beyond what AI can do, to create something more and in a creative way.”

5. Discussion

Systematic review findings indicate that policies promoting the integration of digiAI into the contemporary art industry have been in place since 2016, with more recent directives emerging in 2019 and 2021. These policies focus on the integration of technology in the contemporary art industry; cultural development aligned with digital technologies; and the promotion of cloud platforms, metaverse, and immersive exhibitions. In addition, initiatives such as “Digital China” support the digitization of industries and regulate AI to promote its use among individuals and organizations. This environment has enabled the complete national integration and subsequent adoption and acceptance of digital software and AI in art creation processes. Consequently, the adoption characteristics and uses of digiAI observed in survey and interview responses align with the technological development directives outlined in these policies.

Interview findings reveal widespread adoption and acceptance of digiAI in creative processes across different types of artists (including sculptors, video artists, and painters) and age groups. While digital technologies are

primarily used for rendering and blending purposes, AI is also used for idea generation, creative collaboration, research, and code debugging. Although AI-generated esthetics can sometimes appear archetypal and bland, artists maintain their individual styles by combining AI with digital software. Artists have developed a close relationship with these tools, which enable them to enhance their creativity, gain inspiration, and achieve greater speed and accuracy. Findings also highlight the collaborative dynamics between artists and their digital partners, the new forms of creativity that emerge from these interactions, and the empowerment artists feel owing to the efficiency facilitated by these technologies.

The findings further confirm the widespread adoption of digiAI in the practices of artists and arts professionals. There has been near-total integration of digiAI methods into the processes and systems of art organizations, as well as into the creation processes of individual artists across various visual arts fields in China over the past 1.5 years. The survey results indicate that within this period, artists have experimented with both digital and AI programs, recognizing that combining the two can enhance creativity and innovation. Artists also reported that digital software and AI do not conflict with their roles or creativity; rather, they feel that digiAI enhances their work by providing companionship, speed, accuracy, power, and stimulation.

This process of digital transformation, from the national level to the individual level, is illustrated in the model presented in [Table 3](#).

Table 3. Model of digital and AI transition in the contemporary art industry in China

Integration →	Adoption →	Acceptance →	Adaptation
Government policy on the development of digital technologies and AI, regulations to promote ease of use by professionals and art organizations, policies on integration of digital technologies in the contemporary art industry, and Digital China. The government's priority to develop the industry for economic benefit and also provide employment opportunities. An environment in which digiAI is promoted by the government at the national, industry, organization, and individual levels. Individuals are used to digital technologies and adapt with updates in technology, given the history and nature of technological development in society.	There is increased adoption and acceptance; moreover, there is a shift toward a “digital way” in creation processes and a gradual waning of “traditional” physical creation methods. There is enthusiasm for digiAI among professionals. Individuals have gained familiarity with digital technologies owing to recent technological developments. First-hand testing of digiAI at national, organizational, and individual levels has revealed benefits. The COVID-19 pandemic allowed time to test different technologies. Individuals are enthusiastic about new developments and excited about digital-born content.	Professionals see its benefits. Professionals witness how these technologies free up their time and make their art more accurate and powerful. They are comfortable with the whole creation process being digital, i.e., digital-born and digital creation. They do not mind using AI for idea creation, employing technology for more than just noncreative tasks.	Digital technology is now used throughout creative practices, from ideation to production. AI is now not only performing noncreative tasks but also generating ideas; thus, it is creating culture. Artists' work is now about prompting, learning how to best prompt and collaborate with nonhuman agents. Relationships with digiAI boost creativity. Creativity comes from combining software and AI, different mediums, and different industries. Artists have become artist-prompters or artist-inputters.

6. Conclusion

This study documented the current digiAI transformation in China's contemporary art industry. In particular, we examined how digiAI has been integrated at the national level and adopted and accepted by professionals. The primary aim was to explore how professionals should integrate these technologies to ensure that human creativity and innovation can be preserved and enhanced. This research is essential in understanding the integration of digiAI and consequences of digital transition with their full adoption and acceptance.

This study presented a country-specific analysis of the integration, adoption, and acceptance of digital art partners, highlighting when, why, and how digiAI has been embraced. It documented how visual artists and arts professionals have adapted to the evolving technological and policy landscape to create art, emphasizing the rapid integration of digiAI alongside national policies promoting AI and digital technologies. An analysis of the consequences of digital transformation reveals that professionals have adopted the "digital way" in their creative practices—from the ideation stage to the production stage. It has highlighted how AI is now being used to generate ideas, transforming the work of artists into one focused on prompting, learning to prompt effectively, and collaborating with nonhuman agents. Relationships with AI and digital software and the blending of mediums, software, and industries are considered to boost creativity. Artists' roles are evolving into those of "artist-prompters" or "artist-inputters." A model of digital and AI transition was created, encompassing national-level integration of technologies into the contemporary art industry as well as organizations' and professionals' adoption and acceptance of digiAI due to its capacity to enhance speed, creativity, and innovation in workflows through total digital creation, prompting, and iterating. The total acceptance of digiAI means that artists now engage in nonhuman relationships that involve prompting and dialog with AI, allowing artists to experience renewed creativity and innovation.

This study has demonstrated that cultural and societal contexts must be a central component in the analysis of the current nature of the contemporary art industry. It has shown how a broader societal context can influence the pace, level, and spread of adoption. While scholars globally, including those in China, have connected digital art to the social context, this study has updated this discussion to reflect today's context. It does so by analyzing government policy and the impacts of national directives on technological development and the integration of art and digital technology, particularly in terms of how they affect individual artists' creation processes and influence

their thinking, work styles, speed of production, and innovation.

In addition, the study provides insight into the human perspective on this technical trend by focusing on professionals' practices. Instead of adopting the more common perspective of technological determinism or focusing solely on technical capabilities, it highlights societal factors in the digital transition and explores people's attitudes toward adopting digiAI. As a result, this analysis can offer insights into the extent to which digiAI is influencing industry practices and work processes.

The study assesses the consequences of digiAI integration, adoption, and acceptance, offering insights into other contemporary art industries globally. It illustrates how innovation can flourish with the careful integration of digiAI and creativity. Moreover, gaining a deeper understanding of human agency, creativity, and innovation through the creative process can serve as a catalyst for the development of the contemporary art industry. This study presents a way to integrate and use digiAI, which empowers and enlivens workers, thus boosting the industry's advancement. The inclusion of digiAI in art processes can empower artists to enhance efficiency and speed and create an environment in which creatives feel more empowered in their work. This study has shown how inspired artists can feel with the use of digiAI, which can potentially drive developments and new directions of innovations in the industry.

Artists believe that there is more freedom in the digiAI process, with possibilities for creative mixtures of mediums, software, styles, and industries. These new forms of communication and collaboration that are used to create art and shape the work ecosystem can act as a catalyst for the next stage of development in the industry. DigiAI integration could spark more innovation and ideas across a broad range of artists and professionals, illustrating how they will not be replaced by AI. It is important to acknowledge the sustainability of artists' jobs, and policymaking should be aimed at regulating the next stage of industry development.

Some artists and arts professionals have greater control over AI, understanding its limitations and finding solutions by compensating for its shortcomings—skills typically possessed by those with good technical knowledge or coding abilities. In addition, while localized representation adjustment files modify AI programs such as stable diffusion to generate outputs based on specific concepts like art styles, characters, or themes—which can aid creativity and innovation—there are many technical demands that artists of the current generation may not have encountered during their training. Therefore, greater collaboration

with the technology industry or national-level technical training is necessary to ensure sustainable integration and the continued development of the art industry.

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ARTICLE

Self-portrait as mask. The case study of Gillian Wearing

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Abstract

This article examines Gillian Wearing's *Family Album* photographic series (2003 – 2006), relating her self-portraits to the postmodern identity theories of Fredric Jameson (1984) and Kenneth Gergen (1991) for the 1st time, as well as linking them to Hans Belting's interpretation of the symbolism of the mask (2013). In the photographs, Wearing assumes the features of her family members through hyper-realistic masks and wigs, recreating and "wearing" the faces from the family albums. Through this process, the artist temporarily assumes the identity of another person while creating a new subject that combines and adds further characteristics to the personalities from which it is composed. The photographs from the series are compared with other works by the artist, particularly her self-portraits painted during the 2020 lockdown and those created in 2023, in which she portrays herself without a mask, marking a significant shift in her artistic practice.

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1. Introduction

A mask covers the artist's face, making it impossible to guess her physiognomy. Although, at first glance, a photograph does not show any unusual features, the unnaturally shiny surface of the face soon reveals its artificial character. Multiplied into numerous versions, the image of the artist takes the form of one body and then another, shifted by masks that change its connotations: this is how many of Gillian Wearing's photographic self-portraits are presented, with a focus on the exploration of personal identity. This article seeks to relate Wearing's self-portraits, for the 1st time, to the postmodern theories of identity developed by Fredric Jameson and Kenneth Gergen, as well as to Hans Belting's interpretation of the meaning of the mask in art.¹⁻³

The relationship between the self-portrait and the mask in Wearing's videos, photographs, and installations has been the subject of texts, interviews, and exhibitions over the years, which have emphasized the connections with the work of contemporary and modern artists, such as Diane Arbus, Claude Cahun, James Ensor, and Cindy Sherman.⁴⁻⁸ From 2021 to 2022, the Solomon Guggenheim Museum in New York devoted a major retrospective to the theme. The exhibition, entitled *Gillian Wearing: Wearing Masks*, featured most of Wearing's self-portraits, including a new series of paintings and sculptures titled *Lockdown* (2020). The exhibition, curated by Jennifer Blessing and Nat Trotman, explored the performative nature of identity in a media society, with critical

references to the work of sociologist Erving Goffman. It also presents the works in chronological order to highlight the different modes of self-representation adopted by the artist over time.⁹ Despite the aforementioned initiatives, there is still no theoretical production that thoroughly addresses the significance of the mask in Wearing's work, placing it in the postmodern context. In general, there is a paucity of scholarly publications on the work of this artist although she has received significant recognition, including winning the 1997 Turner Prize, and exhibited works in major museums and institutions. Therefore, this article aims to contribute to the existing body of knowledge by identifying theoretical frameworks that can provide new insights into the study of the self-portrait in Wearing's work as well as that of other contemporary artists.

2. The face as a mask, the mask as a face

The mask plays a central role in Wearing's practice, particularly in her works from the early 2000s, such as the *Family Album* photographic series (2003 – 2006). Wearing presents herself with the features of her relatives by reproducing images from her family album. The artist, thus, explores the ambiguity of self-perception and the perception of others by taking on the faces, bodies, and identities of her family members.

While *Family Album* is a significant milestone in the evolution of Wearing's language, mask-related elements can also be found in her earlier works, although they were not associated with the theme of self-representation. For her well-known work *Signs That Say What You Want Them to Say and Not Signs That Say What Someone Else Wants You to Say* (1992 – 1993), Wearing photographed passersby holding blank paper signs, upon which they wrote their thoughts and messages. The work highlights the contrast between the physical appearance of the subject and the thoughts expressed on the paper.¹⁰

In this first series of photographs, although the mask is not materially present yet, its symbolic function permeates the work.¹¹ Examining the image *I'm Desperate*, for example, the theme of the series (i.e., the conflicting relationship between interiority/exteriority, the individual, and the social environment) clearly emerges (Figure 1).¹² The businessman's face and posture convey confidence and control, in keeping with his attire, but the sign he holds reveals the state of impenetrable desperation in which he lives.

The subject's face appears to confirm one of the theses presented by art historian and theorist Hans Belting in his essay on the history of the face. The contrast between the subject's mood and physical appearance is striking. Belting argues that the face has the capacity to become a mask. He states the following: "We do not have access to an artificial



Figure 1. Gillian Wearing, *I'm desperate*, 1992 – 1993. Photograph, color, chromogenic print, on paper. © Gillian Wearing, courtesy Maureen Pauley, London

second face, but rather produce masks with our own face by making it expressionless or by grimacing."¹³ Belting treats the face as the figurative medium necessary to make the body an image: in this sense, it represents a temporary image of the person, not the true self. Subject to mimicry, gaze, and language, the face is the seat of multiple images of the self, cast as masks according to circumstance. Confirming Belting's statement, the face of the protagonist in *I'm Desperate* is configured as a mask worn to reflect the expectations demanded by his role in society, creating an image capable of mimetically concealing the unhappiness being experienced.

Wearing's exploration of people's inner states and the image projected in the social context is further developed in the video *Confess All on Video. Don't worry, You'll be in Disguise. Intrigued? Call Gillian* (1994), where the element of the mask appears for the 1st time in a tangible way. The operation begins with an advertisement in the magazine *Time Out* that contains the text quoted in the title, inviting volunteers to confide in front of a camera. The artist selects 10 people from among those who had responded to the advertisement, gives them a choice of disguises, and films them as they reveal their secrets, which usually concern betrayal, revenge, violence, or sexual acts. In this case, camouflage is introduced to protect the privacy of the 10 volunteers, who are invited to

reveal their secrets on camera in a process inspired by reality television.¹⁴ The video creates an atmosphere of secular confession, which loses its sacredness because of the type of masks used: caricatured reproductions of the faces of public figures, flashy wigs, false noses, fake beards, and sunglasses. The disguises in *Confess All on Video* sometimes completely cover the face of the interviewee, whereas in other cases they leave the face partially or fully visible – a characteristic that is shared with later works that also focus on the genre of the masked media confession.

The function of the mask is enriched with new meanings in Wearing's artworks of the early 2000s, in which a greater focus on the self can be observed, concretized in the development of different types of disguised self-representation. Prominent among these are the photographs in the *Family Album* series, a collection of black-and-white as well as color images, in which Wearing reinterprets her family tree and reproduces family photographs in the form of self-portraits with elaborate masks and hyper-realistic silicone wigs.

3. Portraying oneself as the other

In one self-portrait in Wearing's series *Self-Portrait as My Mother Jean Gregory* (2003), the artist uses a mask to



Figure 2. Gillian Wearing, *Self Portrait as My Mother Jean Gregory*, 2003, framed bromide print. Frame: 150 × 131 cm, 59 × 51 5/8 inches. Print: 135 × 116 cm, 53 1/8 × 45 5/8 inches. © Gillian Wearing, courtesy Maureen Paley, London, Tanya Bonakdar Gallery, New York and Regen Projects, Los Angeles

recreate a black-and-white photograph of her mother as a young woman (Figure 2). The photograph depicts a smiling young woman in a floral blouse in a half-length, three-quarter turn. Wearing explains that she found it difficult to recognize her mother in the original photograph, which was taken before she was born.¹⁵ The peculiarity of the portrait/self-portrait is that it captures both the woman's past features and those of her daughter: with this self-portrait, Wearing aims to show, through her gaze, her mother's light-hearted youth.

The same mechanism is used to reproduce photographs of her brother, sister, father, uncle, and grandparents – the vehicle of an investigation that, through the medium of photography, intersects with topics such as identity, memory, and the impermanence of existence. The chosen images show almost all family members at the same age, between late adolescence and their 20s, which places them on the same level, regardless of their role in the family tree.

In the series, the artist's actions do not aim to remove the identity of her family members but rather to show the interpenetration between the subjectivities contained in a single body, represented in its various manifestations. The artist temporarily assumes the identity of another individual, with whom she shares genetics and certain physical characteristics, to create the image of a new subject who combines and adds other attributes to the different personalities of which she is composed. The subjectivity she describes and represents is indeed neither her own nor that of the other relatives: it takes the form of a third simulated identity, elaborated to confront the ideas of original and copy, the concepts of past and present, and the family dynamics that contribute to the definition of the individual.

The performative act of masquerade adopted by the artist is linked to a tradition of masked portraiture that, in the contemporary context, has roots in the works of Marcel Duchamp and Claude Cahun, themselves protagonists of a series of self-portraits linked to *Family Album*. Duchamp's female alter ego, Rose Sélavy, first assumed a physical presence in 1921 through photographic portraits created by Man Ray. These images depict Duchamp in female attire and posture, a motif that would be replicated in other Man Ray photographs throughout the 1920s. The pun that forms Rose Sélavy's name recalls the French phrase "Eros, c'est la vie" (which can be translated as "Eros, such is life"), an allusion to the erotic sphere.¹⁶ By presenting herself as a woman, Duchamp disrupts social norms and ironically plays with gender roles, creating an alternative identity that is both the protagonist of some works (e.g., *Why not sneeze Rose Sélavy?* [1921] and *Belle Haleine, Eau de Voilette* [1921]) and the author herself (e.g., *Fresh Widow* [1920] and *Anemic Cinema* [1926]).^{17,18}

In the same period, Cahun engaged in a multidisciplinary artistic practice encompassing writing, sculpture, photomontage, photography, and performance. By changing her given name to the gender-neutral pseudonym Claude and adopting her grandmother's surname, Cahun forged a new artistic identity diverging from both traditionally perceived femininity and masculinity.¹⁹ She wrote the following: "Masculine? Feminine? It depends on the situation. Neuter is the only gender that always suits me."²⁰ Through employing various props such as masks, costumes, and elements from nature, she disrupted conventional perceptions of reality, creating self-portraits that focus on the exploration of the fluidity of the self. Simultaneously, her photographic portraits underscore the challenges of positioning herself as an artist generally perceived by her peers as a female within a cultural and intellectual sphere dominated by male presence.²¹

Wearing draws upon the artistic practices of both Duchamp/Rose Sélavy and Cahun, choosing photography as the preferred medium and the self-portrait as the predominant form. Although, as outlined below, her photographs differ from those of her predecessors, Wearing pays tribute to them through a series entitled *Spiritual Family* (2008 – present), in which she disguises herself as the artists who have most influenced her during her career by wearing silicone masks and adopting their gestures. In doing so, she acknowledges not only Duchamp and Cahun but also Meret Oppenheim, Robert Mapplethorpe, Georgia O'Keeffe, Diane Arbus, and several other artists as her chosen spiritual family.

In this context, as well as in other photographs, the masks have an alienating effect on the viewer because, despite their verisimilitude, it is obvious that they are prostheses. The large format of the photographic prints reveals some unmistakable details of their fabrication. In particular, the distance between the mask and Wearing's eye contour makes it clear that this is fiction, not a portrait of a real person.²² In the photographic self-portraits of Duchamp/Rose Sélavy and Cahun, the subjects' identities remain identifiable and cohesive, despite changes in makeup, clothing, and prosthetics. By contrast, in Wearing's self-portraits, the prostheses and makeup suggest that the represented identity is fictitious. These details lead the viewer to question who the real subject of the portrait is while underlining the theme of the whole operation, namely the ambiguity in the perception of the self and the other.

In this respect, Peggy Phelan's analysis of performance and the representation of the body in contemporary times is fascinating, especially when she focuses on Cindy Sherman's self-portraits. Addressing the politics of visibility through a

feminist examination of contemporary culture, she outlines – in reference to Sherman – that "just as her body remains unseen as "in itself it really is," so too does the sign fail to reproduce the referent. Performance uses the performer's body to pose a question about the inability to secure the relation between subjectivity and the body per se."²³

If Sherman's concern is to make the female body visible, Wearing shifts the focus to the exploration of relational and social ties and how they influence the construction of subjective identity. The works of both artists reflect the difficulty of representing oneself as one really is. In Sherman's case, as for Wearing, what is represented is a self-image that is "always already an image of the other" because it reflects something that does not belong to the original self and that remains covered up under makeup, wigs, and prostheses.²⁴ The visible body thus ends up concealing rather than revealing the real self.²⁵

This component ties into what Wearing's voiceover expresses in the video installation *Wearing, Gillian* (2018): "We all wear masks. We're all actors. When you walk out your front door in the morning, you're putting on a performance for the world."²⁶

In this respect, Fredric Jameson's study of the cultural, political, and social implications of postmodernism offers an interesting key to interpretation. It describes the transition from the centered subjectivity of classical capitalism to the fragmented subjectivity of postmodernism through pictures using examples from art history.¹ Jameson identifies Edvard Munch's *The Scream* (1893) as emblematic of the modern era's anxiety, highlighting its depiction of "the great modernist thematics of alienation, anomie, solitude, social fragmentation, and isolation" as a sign of the expression of individual subjectivity.²⁷ Regarding the postmodern subject, Jameson asserts that it lacks the capacity to organize time into a coherent experience; the inability to create continuity between past and future results in a schizophrenic subject who exists in a perpetual present, experiencing fragmentation, plurality, and emotional flatness. Consequently, a painting such as *The Scream*, which conveys intense emotions like anxiety and alienation, can no longer be created in postmodernity, as the concept of expression presupposes a unified and unique self, a coherent temporal experience, and a clear demarcation between internal and external realities.

Jameson cites Andy Warhol's work as indicative of early postmodern artistic production reflecting the advent of a new form of flatness, the collapse of the distinction between high and low culture, and the waning of effect.²⁸ In Warhol's portraits, the subjects are replicated, commodified, and reduced to mere images, thereby erasing references to their

individual lives or emotions. The repetitive portrayal of subjects erodes the expression of complex emotional states, rendering personality to be subordinate to the seriality of its media representation.

As Jameson claims about the lack of depth of postmodern pictures, Wearing's self-portraits do not offer any element of the artist's personality or emotions. The expressiveness of the portraits is abandoned in favor of a simulated representation where the artist's face itself becomes a mask, behind which we are unable to discern anything.

Another pertinent key to interpreting this subject is provided by Kenneth Gergen, an exponent of social constructionism and contemporary social psychology. According to him, the fragmentation of the idea of the self coincides with the development of multiple, disconnected relationships that lead the individual to play different roles, corroding the concept of the "authentic self."²⁹ His position draws on one of the classic sociological studies with which Wearing is familiar, namely Erving Goffman's *The Presentation of Self in Everyday Life*, in which Goffman argues that the concept of self is formed based on relationships with others and the social context in which we are embedded.^{30,31} Gergen notes that the postmodern self, which can move freely from one image to another, evolves in response to external stimuli conveyed by other identities. Instead of the personal identity core of modernity, it is inhabited by images of the outside world and the people around it, until it becomes a relational self.³²

In line with these assumptions, Wearing's works stage a constantly changing personality that allows her to present herself in different forms, a process confirmed by the following statement by the artist herself: "I believe that identity is fluid and it's what you absorb and internalize from the world around you. But what you reveal of yourself to the world is how other people define your identity."³³

4. The disembodiment of the face

In light of the observations made in previous sections, it is relevant to note that in *Family Album*, Wearing not only plays the roles of family members but also reproduces two photographs of herself at the ages of 3 and 17 years. In particular, in *Self-Portrait at 3 Years Old* (2004), the artist exercises her adult gaze through a child's mask. The work reflects on the passage of time, questions the truthfulness of the photographic medium, and raises multiple questions, such as the following: Which of the two images more authentically reflects the artist's identity? Is the Gillian Wearing of the new self-portrait the same as that in the original photograph?

These questions are raised by the numerous photographic self-portraits in which the artist wears her own mask, usually in an idealized version or at a different age from that at the time of the work's creation, as in *Self-Portrait* (2000), *Self-Portrait at 27 Years Old* (2012), and *Rock'n'roll 70* (2015). As the title of one of these self-portraits suggests, namely *Me as Mask* (2013), the artist seems not so much to be representing herself with (or in) a mask but rather *as* a mask. This concept of "presenting as" offers a possible key to deciphering the nature of the subject behind the silicone faces.³⁴

Belting argues that the mask is a symbolic representation of a face rather than a replica of a real one. He describes it as "an exarnation of the face, in the sense that it "disembodies" a face to "embody" someone else. By contrast, one may speak of an incarnation of changing masks, which our face constantly produces in expressive gestures."¹³ According to Belting, the face and the mask share the same iconic character, allowing for one image to transform into the other. Wearing's use of the mask aligns with Belting's interpretation as it enables the creation of new images by transitioning between identities and constantly "disembodying" one's own face.

This modus operandi seems to have taken a surprising turn in a series of self-portraits taken by Wearing in 2020 during the isolation imposed in response to the COVID-19 pandemic. Entitled *Lockdown*, the series provides an account of the time spent in confinement, exploring the artist's own image in a solitary configuration that – unexpectedly – does not involve the use of a mask. Interestingly, Wearing's decision to paint herself without a mask came at a time when the global pandemic had forced everyone to wear surgical masks as protection against the virus. At a time when people had become accustomed to not seeing each other's faces, Wearing made the opposite choice by painting her own features. In addition to the paintings, a sculptural installation is included in the series, but the paintings are the most prominent works. The series marks Wearing's return to the medium of painting more than 30 years after her last paintings. The poses and facial expressions seem to mimic the possible states of mind experienced in a context of separation and seclusion as if it were a theatrical performance in which the artist plays different characters and roles. Although she paints herself without disguises or references to other ages, the reference to the mask is also subtle in these works. In one of the portraits, the outline of the face appears to be marked by the edges of what is effectively a mask, beneath which the artist's eyes stand out (Figure 3). Thus, even when the artist appears to be portraying her true self, her identity seems to shift from one painting to the next: in the proliferation of



Figure 3. Gillian Wearing, *Untitled (lockdown portrait)*, 2020, oil on canvas. © Gillian Wearing, courtesy Maureen Pauley, London

self-portraits, the target of identity is again lost, confused in the plurality of its versions. Wearing, then, lets the mask slip, only to remind us that we always wear one, even when we are outside the social context. In this sense, *Lockdown's* self-portraits are related to early works such as *I'm Desperate*, where the artist's mask and face eventually coincide.

In 2023, Wearing held a solo exhibition titled "Reflections" at the Regen Projects Gallery in Los Angeles. The exhibition showcased new paintings inspired by the esthetics and styles of past artists whom Wearing admired. The paintings depict details of objects, still-life scenes, and empty rooms, combined with self-portraits. In *No Reflection* (2023), for example, Wearing portrays herself sitting on a chair, from behind, looking into a mirror. The mirror does not reflect the artist's face, which creates a sense of estrangement and loneliness reminiscent of the works of Edward Hopper.

In *Rembrandt's Eyes* (2023), Wearing employs the penetrating gaze of the Dutch painter to depict herself through a dense painting characterized by masterful uses of lighting and contrasts. The artist's eyes are prominent in the painting, gazing at the viewer with an intense and melancholic expression. In contrast to the *Spiritual Family* series, in which Wearing impersonates the artists she

admires, she incorporates elements of Rembrandt's style to produce a contemporary self-portrait. This painting, along with others in the exhibition, showcases how Wearing's work draws from a wide range of images and artworks from the past. The theme of personal and collective identity is explored through a contemporary lens. The painting *Looking Forward, Looking Backward* (2023) is the culmination of this process, as it features a double self-portrait and a play on mirrors and reflections. On the left, a young Wearing gazes at the more mature self-image placed on the right, in a pattern that repeats Piero della Francesca's *Double Portrait of the Dukes of Urbino* (1465 – 1472). The viewer is once again faced with the challenging task of determining which is the "true" portrait of the artist from among the various self-images depicted.

5. Conclusion

A large part of Wearing's artistic production consists of a form of self-representation that does not collide with the traditional concept of self-portraiture, as the identity of the subject constantly evades definition, thus "disembodying" itself through different faces. In *Family Album*, the chameleon-like interpretation of countless personalities and roles, tangentially different from each other, helps to conceal Wearing's already imperceptible identity, which loses its unity through a process of multiplication of the personal image. The same happens in the countless portraits of the artist taken over the years, in which the mask worn prevents penetration into her personal sphere.

Wearing uses her body without realizing an autobiographical narrative, producing numerous selves that do not add up or tell anything about her personality, interests, or personal life, in line with the characterization of the postmodern subject postulated by Jameson and Gergen. Her works simultaneously activate different temporalities, showing artificial versions of the artist at the age of 3, 50, or 70 years, in a timeless configuration that allows her to create a continuous self-portrait through which she mirrors herself in multiple bodies and identities. Wearing's face gradually loses its resemblance to herself and ends up as a foreign body, a mask, or – rather – an essence suspended between the self and the other.

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Further disclosure

The author is an independent researcher who is an expert in Theory and Critic of Contemporary Art.

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- The waning of affect is described by Jameson as a feature of the new depthlessness in art attributed to the cultural transformation of the Postmodernism. According to Jameson, in the Postmodern time the impact of the pictures on us must be thought in terms of intensity rather than affect, because we cannot reestablish the individual life or life-world which is their point of reference in the reality.

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ARTICLE

Aurally enhanced media promotion: Music and sound in Greek television commercials

Eleni Oikonomou¹ and Nick Poulakis^{2*} ¹Department of Ethnomusicology, Graduate Center, City University of New York, New York, United States of America²Department of Music Studies, School of Philosophy, National and Kapodistrian University of Athens, Athens, Attica, Greece**Abstract**

The sonic dimensions of modern media—including speech, sound effects, and music—play a significant role in communicating signs, meanings, and messages through multimodal channels of audiovisual connotations. Each feature can be regarded as a discrete unit; however, the overall framework is established through an orchestrated “interaction” of these components. Receiving information through televised advertisements is a cognitive process that requires critical analysis. This study examines the functions of music and sound in television advertising, emphasizing the collaboration between visual and audio material. Our objective is to equally investigate optical and musical conventions in selected TV commercials. We will also analyze how meaning emerges through visuals, sounds, and music in correlation to the product, branding, and the purpose of advertisements as short, concise audiovisual narratives. The data for this study were collected from a series of food and drink ads shown on Greek television between 2015 and 2020. The research draws upon contemporary culturally informed, musicological, semiotic, and interpretive methodologies, applying both textual and contextual analyses to examine how these techniques captivate audiences and effectively communicate messages. Understanding music’s psychological and pragmatic effects in advertising is crucial for recognizing its role as a powerful tool that influences consumer behavior and perception.

Keywords: Television commercials; Greece; Audiovisual analysis; Music and sound; Music and meaning; Music and image

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1. Introduction

Sound has always been integral to human nature, and its analysis is crucial for understanding both the world and the individual. In this study, sound is defined as any stimulus that the human auditory system can perceive. When organized in complex patterns, sounds become what we recognize as “music.” Since the advent of sound films, music, and sound have been inseparable from moving pictures. Modern media, such as television and mobile phones, have enhanced the audiovisual experience, both as a complementary and unified creation. A common example of this relationship is television advertising, where music and images collaborate closely. Music in ads ranges from a simple chime to catchy melodies or jingles – short, distinctive songs or tunes that

mark a brand or product. Sound effects and music create unique identities for ads, directing the viewer's attention toward the product. Thus, musical accompaniment not only serves esthetic purposes but also reinforces the advertising message and persuades the audience to act.

Furthermore, the market – whether international or local – shapes consumer norms by promoting specific advertising models, musical choices, and directorial approaches. This study delves into the elements that shape advertising, focusing on the interplay between visual and auditory components. Building on a well-structured theoretical foundation, this study examines the role of music and audio in commercials and their effectiveness in delivering the message. The analysis applies the frameworks of scholars such as Michel Chion, Claudia Gorbman, Nicholas Cook, and Tagg to investigate the elements of audio and music in advertising. To gain a comprehensive understanding of the role of music in commercial and semantic promotion, the study explores how music influences both the process and outcome of advertising toward consumers.

This study offers a musicological analysis of audiovisual material in Greek television advertisements, examining how these components relate to the product, branding, and overall objective of the ad. Specifically, it analyzes television advertisements for food and beverages aired in Greece between 2015 and 2020. The material was sourced from the official YouTube platform, and the findings have the potential to inform future advertising strategies and practices. These insights are crucial for understanding consumer patterns, influences, behaviors, and the impact of sound on human nature. By presenting this information, the study aims to inform readers of these trends and raise awareness of their potential implications.

2. Music and meaning: Cultural symbols and interpretations

To understand how sound and music communicate advertising messages, we must first examine whether music inherently possesses this capability. One of the fundamental questions that have been engaging scholars in sound studies in recent decades is whether music can serve as a carrier of messages and meanings. This philosophical question has given rise to two opposing currents of thought. The first perspective views music as an absolute art, whereas the second perspective views it as a product of social actions, interactions, and activities.

The first standpoint posits that music is a self-contained entity, expressing nothing beyond its own intrinsic qualities.¹ This view emerged from Western institutional musical esthetics and asserts the superiority of purely

instrumental compositions.² The notion that music exists as a pure, independent construct devoid of external meaning implies that it is unrelated to everyday life and, consequently, is considered “above” it. However, this view fails to acknowledge the integral communicative nature of music and its deep-rooted connection to cultural and social contexts, refuting any theory of autonomy and self-sufficiency.¹ The concept of music as an autonomous art form likely emerged in the 19th century, a period marked by a significant shift in music's societal role as composers were gradually liberated from the constraints of aristocratic patronage, religious function, and textual dependence.³ For the first time in history, musical composition and performance arose primarily from an intrinsic desire for creative expression, rather than being driven by external demands or bound by “authoritative” constraints.³ Although this newfound independence allowed for greater artistic freedom, it also promoted the misconception that music was an entirely self-contained entity.

Nevertheless, the need for independence is defined and experienced by the subject, not the object. Thus, the concept of absolute music remains a powerful historical illusion. Over the years, musicologists and ethnomusicologists have argued that the structures, practices, and concepts of music are culturally determined and their meaning can be understood only through study within specific cultural contexts.⁴ Accepting the cultural dimension of music acknowledges the human contribution to it and highlights the importance of the sounds, attitudes, values, and behaviors associated with it.⁵ Concepts alone do not drive music; behavior, whether musical or otherwise, is directly related to culture as a result of the respective cultural environment and should thus be evaluated according to the social context.

Music's power as a communicative medium and its profound influence on society is further evidenced by its intrinsic connection to cultural change. As cultures transform, their musical expressions undergo parallel alterations, reflecting and often driving societal shifts. As a meaningful part of the social structure, music adapts to change and is redefined through an adjustable process called “reinterpretation,” a process where old concepts are applied to new elements or where new values modify the cultural significance of older forms. This process involves blending elements from two or more cultures, as exemplified by African American music during the First World War.⁵

Therefore, an important factor in studying the nature of music is its communicative properties. Unlike speech, which relies on linguistic content, the communicative dimension of music is based on musical

sounds and is innately multifaceted. Music's extraordinary communicative power can be exemplified by its ability to serve as a cultural mediator, emerging as a dominant and unifying element when diverse societies intersect. It acts as a non-verbal bridge, transcending linguistic barriers and fostering understanding between two or more distinct cultures. This unique capacity of music to facilitate cross-cultural communication underscores its universal appeal and potential to forge connections where words alone may fall short. Music follows a different path that transcends cultural boundaries through rhythm, melody, and harmony, enabling shared experiences and mutual appreciation even in the absence of a common spoken language.⁶ Music represents culture in two ostensibly contrasting ways: (a) As a common form of expression on a global level and (b) as a distinctive expression highlighting the differences between cultures.⁶ As we explore further, this aspect becomes particularly significant when examining the use of music in ads for products that belong to multinational corporations or are intended for mass consumption.

Music plays a crucial role in shaping our internal experiences, emotions, and identity. Its communicative power lies in the emotions it evokes. Active listening guides the listener through the "movement" or "articulation" of the music (whether slow, fast, staccato, flowing, and so on). Musical symbols direct the listener to experience and imagine through an internal dialog. This process involves a complex interplay among musical symbols, emotional responses, and cognitive functions. These internal experiences can also lead to physical responses, as emotions are expressed through bodily movements.³

This internal dialog reveals how music, as a powerful means, empowers individuals to engage in self-expression and introspection. It allows them to recognize their deepest emotions and thoughts, exploring and engaging with them in a deeply personal way. People construct their personas based on their feelings, visual and auditory experiences, and regular interactions with their environment.⁷ The mind shapes forms of personal identity, with music playing a significant role in this cognitive process. Individual identity is the cornerstone of one's self-concept – a complex, multifaceted construct that encompasses how a person perceives, defines, and characterizes themselves. These intricate self-perception functions as a cognitive framework that delineates the individual's understanding and recall of their attributes, experiences, and values and influences how others identify and interact with them.⁸ Music is a part of the self-concept and communicates emotions, identities, and behaviors.⁹

Advertisers exploit this inner dialog to persuade the public and create an identification pattern between the

object and the subject. In other words, the impact of music on identity formation extends beyond external communication between sender and receiver. It involves a profound internal process where individuals process musical information, analyze its content and context, and create mental images and emotional responses. Across this dialog, music contributes significantly to fostering and refining one's personal identity.

An intriguing formulation of the meaning of music in relation to the cultural context is given by Cook.¹⁰ He assumed that music had meaning, following the standards of the interpretive approach. However, what he does not take for granted is the communicative dimension of music. He emphasized that the issue is not whether music has meaning but how it is communicated. According to Cook, the influence of music is undeniable, and he distinguishes between effect and meaning through the lens of communication – a uniquely human factor. In other words, he argues that the proof of music as an interconnected and dependent activity – both on the overall cultural context and on individual experience – lies in its communicative function. Music has meaning, whether it is an artistic expression or a "tool" of mediation.¹⁰

There is no definitive answer to whether music conveys meaning and how it does so. The conclusions drawn largely depend on the perspective from which music is studied, highlighting the multifaceted nature of musical interpretation. Despite varying esthetic perceptions of musical meaning, a common thread persists: music is described and analyzed by living, sentient beings.¹⁰ Thus, following this line of reasoning, a significant and challenging question arises: How can scholars effectively interpret the powerful properties of music?

One effective approach to understanding complex ideas is through the interpretation of symbols, a process known as semiology, and the art of interpretation called hermeneutics. As Tagg explained, semiology is the study of signs and symbols, especially the relation between written or oral signs and their referents in the physical world or the world of ideas.² Following ethnomusicology, sociology, and semiotics practices, he argued that symbols are interpreted based on the cultural and social contexts to which they belong. Ethnomusicology connects music with people and their culture, the sociology of music correlates music with society, and semiotics studies music and the dynamic relationships between structure and perceived meaning in music.²

For Tagg, the word "signification" conceptually includes both the notions of "sign" and "meaning."² Musical signification (icons, indices, and significations) includes notes, keys, staves, and all elements that signify

and represent musical performance. In musical notation, certain elements serve as iconic representations of auditory phenomena. For instance, the upward and downward movement of notes on a staff visually depicts the rise and fall of a melody (from higher to lower pitch). Indices are signs that bear a connection to what they represent based on spatiotemporal proximity or causal relevance. A corresponding representation for musical composition could be the common perception of minor scales and chords as conveying sadness or melancholy, whereas major scales and chords are frequently interpreted as expressing happiness or joy. All types of musical signs (indices, icons, and notations) can be considered indicative.²

In other cases, music has been organized to follow conventional patterns and genres in which notation, either iconic or indexical, is always clear. For example, the monophonic sound of four French horns in a relatively high position above the middle range of the register has been associated with a sense of heroism, although the sound of horns was initially used in hunting or other male activities in the European countryside. The association with male activities may have been lost in modern times, but the general attribution of heroism through the sound of horns has persisted as a remnant of a stylized social convention.²

In our practical, analytical approach, we will treat musical symbols and semiotics as a unified whole, interpreted through the logical progression of audiovisual material. Combined with imagery, music becomes an indicative symbol that is both read and heard in the present moment, with notations presented in real-time, without the need for translation into sheet music. This approach is particularly relevant in our current context. The intertwined forces of globalization and technological advancement have fostered a global landscape of unified communication systems and standards, primarily through the proliferation of media, the Internet, and social networks. Our interconnected world has created an unprecedented opportunity for emerging scholars, as the task of decoding evidence is no longer rooted in entirely unfamiliar contexts, particularly in Western civilization and its far-reaching influence.

Until the 19th century, in the Western world, sheet music was the primary method for reproducing acoustic material, which was quite restrictive. The symbols had to convey the “meaning” in musical representation. However, from 1900 onward, with the invention of the gramophone and the possibility of recording, the actual reproduction and transmission of sound became possible.² Recordings and sheet music are tools of study and interpretation that can be used “after the fact” and not in real-time creation.

This capability proves that music is multidimensional and polysemic. The ability to capture and reproduce sound directly has transformed our understanding and analysis of music, allowing for a more immediate and comprehensive approach to musical semiotics and interpretation.

The correlation between language and musical structure is a common scientific practice for analyzing the influence and function of music. Music, like language, follows a specific syntax to convey meaning from performer to listener. That musical meaning extends beyond the sequence of notes, encompassing elements such as genre, esthetics, tonality, and instrumentation. For example, just as a speaker chooses specific words and syntax to communicate his thoughts, music follows “harmonic syntax” to transition from performance to listening.¹¹

Furthermore, the concept of the “musical work” is crucial in understanding musical meaning, significantly amplifying human contribution and engagement. This term connects music to the world of commerce as an economic product, giving it objective characteristics beyond subjective interpretation.¹⁰ This objectivity differs from that of absolute music as it attributes to music qualities that can be analyzed scientifically by humans, similar to other positive sciences, rather than treating it as a self-existing product that implies an element of randomness. The economic dimension also highlights the intentionality behind music. Musicologist Oscar Hernandez Salgar expanded on this idea, asserting that music has always been intertwined with society, religion, and economics.³ He proposed a three-category model for the interdisciplinary analysis of music:

- 1) Cognitive/bodily: This category examines the conditions under which the listener/receiver encounters music, along with their bodily reactions. These conditions include space, time, cultural context, content, individual knowledge, and the type of music. Finally, it considers individual characteristics of the music and the emotions it evokes.
- 2) Social/interpretive: This category focuses on the structural material of the musical genre, such as tempo, timbre, and instruments, while highlighting the impetus and motivation for creating or listening to music in relation to extramusical elements and social conventions.
- 3) Cultural/political: This category investigates how music genres contribute to cultural meaning and potentially challenge existing norms to create new ones.

Salgar’s model is a common analytical tool for various disciplines, emphasizing the multifaceted nature of musical meaning and its impact on human experience. In essence, the meaning of music extends beyond its internal

structure to encompass its role in society, its economic value, and its ability to evoke emotions and create shared experiences. Adopting this comprehensive approach helps in understanding musical meaning by acknowledging both its subjective and objective aspects, as well as its power to shape and reflect human culture.

Consequently, every musical analysis must begin with a clear understanding of the communicative framework within which “meaning” occurs. The interpretive approach finds the significance of music through the subjective understanding of the text. The music itself, whether heard in a concert hall or on the radio, does not inherently pose questions of “meaning.” These arise from the human cognitive approach and recall.¹⁰ Of course, to fully understand the communicative framework within which music and its meaning exist, their historical and cultural context must be studied.

Music is a form of communication because it evokes emotions that transcend linguistic codes. However, musical experience is subjective and depends on the respective society. Although musical practice is universal, its analysis and understanding must be based on a specific framework.¹² Shifting the focus from music’s cultural context to the properties of sound as a physical phenomenon, we can refer to its internal structure – symmetries, patterns, and directions (e.g., ascending or descending movement of melody). This approach moves from analyzing the music itself to considering listeners’ reactions, leaning toward a psychophysiological analysis.¹⁰ The science that analyzes the individual, objective characteristics of music – tone, melody, time values, symbols, score, and so on – and assigns meaning to them is known as musical semiology or semiotics.

In conclusion, musical meaning emerges from the interplay between subjective experience and the objective substance of music. The objectivity of music lies in its structured system of symbols, which functions as a metalanguage carrying “meanings.” These meanings are deeply embedded in Western musical practices – composition, performance, and listening – and act as codes that unlock emotions, intentions, and concepts. Musical performance, in turn, is a human psychological and cognitive process that expresses, reinforces, and establishes collective identity and a sense of “self.” The subjective dimension is evident in how individual and collective experiences are mirrored through internal dialog and the expression of personal views. As a product of social, cultural, and economic life, the music reflects and influences human actions, values, behaviors, and thoughts, thereby communicating identities. The concepts of “self” and “belonging” are unique to each individual, just as

the musical experience. Both individual and collective identities are parallel and dynamic, rooted in the past, alive in the present, and evolving into the future.

3. Music and (moving) image: Relations, practices, and functions

Since the end of the 19th century and throughout the 20th century, motion pictures began to make significant inroads into the long-standing dominance of writing. From their beginnings, researchers were keen to inquire about the purpose and covert messaging of sound within motion pictures. What became apparent was that moving images could convey ideas and sentiments that extended beyond their visual dimensions. The acoustic functions of audiovisual media, including human speech, sound effects, and music, play a significant role in communicating underlying messages. Each function is an indicative item, with the overall meaning emerging through their orchestrated interaction. Music aligned with imagery in cinematic art became integral to telling a cinematic story by helping define era, time, and language. Even before the advent of synchronized sound and color in cinema, filmmakers recognized the power of music to enhance visual storytelling. The adoption of background music in silent films underscores music’s importance and its unique ability to transcend technological limitations and convey emotion and atmosphere.

A motion picture’s natural result and coherence arise from the collaboration and synchronization of visual and audio material. Chion identified three important sound functions in collaboration with moving images.¹³ The first role of sound (voice, music, and sound effects) is to support films’ need for time framing. Its second function is to enhance the image’s credibility and enrich the viewer’s immediate experience. Finally, the third function underscores the critical importance of audio overlay, dispelling the misconception that sound is merely an ancillary or dispensable component in relation to visual content. On the contrary, audio plays a pivotal role in the co-creation of meaning, working in tandem with visual elements to form a cohesive and multifaceted narrative.¹³

The added value of musical overlay in film is apparent when music creates specific emotions in relation to what is displayed. This is achieved in two main ways. First, music actively heightens the feeling of a scene, following its rhythm, tone, and phrasing. Chion calls this “empathetic” music since it “awakens” the responsiveness of the audience, placing the viewers into the emotional sphere of the protagonists.¹³ Empathetic music aligns with the emotional atmosphere of a scene, reinforcing the audience’s connection to the story by complementing the

mood of the characters or situation, such as through the use of suspenseful music to heighten tension. This type of music relies on cultural codes related to emotions, allowing the audience to identify with and experience the actors' feelings. In other words, the audience empathizes with the actors. The second type of film scoring in Chion's theory is "anempathetic" music, which is neutral or passive; its progress is stable and usually unrelated to the events. This technique is not intended to freeze emotions but to intensify the scene, especially the feeling of tragedy.¹³ Anempathetic music is indifferent to the emotions on screen; it creates a sense of detachment or irony by contrasting the sound with the action, such as by playing cheerful music during a disastrous scene. Generally, filmmakers choose empathetic music to amplify emotions, whereas anempathetic sound is used to evoke reflection or highlight the indifference of the world to personal events.

Visual and auditory rhythms are distinctly different. The difference between them, according to Chion, is that sound presupposes action or motion from the beginning.¹³ The ear analyzes and processes information faster, whereas the eye perceives information gradually as it analyzes many elements simultaneously. The ear isolates one detail of the auditory field and continues to process it from that point on. Thus, when it comes to audiovisual stimuli, the eye is spatially specialized, whereas the ear is temporally specialized.¹³ What makes sound particularly important is its ability to influence the perception of visual temporality in three ways: (a) It attributes time flow to the image, (b) It favors a succession of images with temporal linearity, and (c) It dramatizes or concretizes moving images by orienting them toward a goal, an expectation, or an emotion.¹³ One of the most important features of sound directly related to temporality is rhythmic treatment. For example, a fast tempo grabs attention immediately, making the message simpler and easier to remember.¹⁴

Sound and image work mutually to produce added value. Sound underscores the image so that the scene does not appear the same when silenced. Similarly, images make the music sound different. For example, sounds can make what the audience sees on screen feel different or more impactful. If someone were to watch the same scene without any sound, it would not feel the same or have the same emotional impact.

Gorbman distinguished two basic properties of music's function in relation to moving images: Diegetic and non-diegetic functions.¹⁵ When characters hear the music and it exists within the realistic spatiotemporal framework of the cinematic action, the music's function is diegetic. When the soundtrack is not part of the action's reality, it is called non-diegetic. For Gorbman, music in film guides

the viewer's vision both literally and figuratively, rescuing the image from dry realism.¹⁵

Music punctuates films through audio codes that result from the collaboration of music, broader culture, and cinematic norms. A well-known example is the leitmotif, a musical theme found in opera, film, and theater, accompanying a character, location, situation, or emotion associated with it.¹⁵ Television eventually adopted this same tactic. As will be explored further, the same applies to commercials, where each advertisement for a specific brand or product features a characteristic melody that often helps the product or company stand out.

The most fundamental audio element in the film is arguably voice. Sound in cinema is primarily phonocentric, making language the dominant variable for viewers. If a film's language is familiar, the audience first seeks word association and interprets the remaining compilation of sounds afterward. Dialog is the primary tool for conveying meaning, aided by the actors' expressions and movements. The voice is part of human constitution and behavior, successfully attracting the audience's attention more than any other audio medium.¹³

It is worth mentioning that narrative music in mass media is one of the most significant sources of musical experience in everyday life. Viewers become accustomed to and familiarize themselves with television's audio preferences. Narrative music can also help to describe a story. Wingstedt *et al.* proposed categorizing narrative music based on its functions as these functions appear in cinema and other audiovisual media. In their study, they identified six key roles: (a) Emotive, (b) Informative, (c) Descriptive, (d) Guiding, (e) Temporal, and (f) Rhetorical.¹⁶

The characteristics that define the functions of sound concerning the image are applicable across all audiovisual media. Television programming started as an experiment, closely mirroring radio in terms of timing, demographics, and maintaining a continuous stream, along with inserting commercial breaks between programs. Television also imitates cinema in terms of esthetic and artistic structure, integrating both images and sounds and presenting this synthesis on screen, allowing the final work to be analyzed and interpreted by the audience.¹⁷

According to Rodman, five sensory channels of cinema are also found in television, including visual elements (moving images), written text, speech, sound effects, and music.¹⁷ Similar to cinema, television exploits cultural codes to convey meaning. The audience is not merely passive but actively engages with the social content projected through image, sound, and speech. This training assists the audience in reacting to a message in the desired

direction. However, a key difference between television and cinema is that television offers reproducibility and continuity in programming and musical expression. This repeatability aids in familiarizing the public with television's operations.¹⁷ Music may serve various roles: as part of the narrative, background music, an emotional intensifier, a source of relaxation, or as a neutral element. In any case, viewers actively contribute to framing the final meaning, whereas the creator's intention influences and directs the result. The audience analyzes the information in a sociocultural context on a case-by-case basis, resulting in a polysemic product with multiple interpretations.¹⁷

According to Eco, the projected object is a representation created by the interpreter's perception, resulting in unlimited semiotic considerations. With a vast television audience, interpretations of each code or project are virtually endless. The objective or collective understanding of a signal does not stem from an absolute principle but from conventions that link a product to a specific interpretation.¹⁷ Music acts as a "melodic ambassador" for a program's style, employing musical markings that artfully blend familiar harmonic practices and standardized melodic patterns.¹⁷ Musical language denotes style and era, as well as space and time, not only in terms of the music itself but also concerning extramusical elements.

Music can imply extramusical phenomena in at least two ways. First, music can mimic sounds, such as birds chirping, streams flowing, or storms brewing. Second, music can signal social conventions or predetermined cultural codes.¹⁷ In the first case, music functions as an indicative index. In the second case, a specific genre of music, such as jazz, is used to represent a city or urban environment. This approach leverages musical styles based on social knowledge and often exploits the musical preferences of viewers.¹⁷ Thus, a soundtrack associates a TV series or show with a specific effect, training the audience each time on what to expect.

In short, the primary function of music in relation to multimedia content results from the synergy between visual and auditory material. These elements work together to create a rich, multifaceted experience for the audience – a polysemic outcome, as the audiovisual process generates several interpretations. Each viewer acts as a receiver, processing the combined visual and auditory information within a sociocultural context, leading to a diverse range of possible meanings and emotional responses. This combination allows for a more immersive and engaging experience, where audio enhances the visual narrative and vice versa, resulting in a more impactful and memorable presentation of ideas and emotions. Music can be part of the narrative, serve as a background layer, intensify an

emotion, provide relaxation, or remain neutral. In all cases, viewers actively contribute to shaping and interpreting the final meaning, whereas the creator's intention influences and directs the outcome.

4. Music and television advertising: Poetic and rhetorical dimensions

An advertisement is a short, self-contained audiovisual narrative that draws on features from the art of filmmaking and aims to capture public interest, evoke consumer sentiment, shape beliefs, and prompt actions, such as purchasing a product. Therefore, a television commercial is a complex creative entity that combines verbal (ad copy, slogans, narration, and song lyrics), visual (images and plot), and audio (music and sound effects) elements. According to the American Marketing Association, advertising is "any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor." Advertisers employ a marketing tactic known as branding – a strategy primarily used by multinational companies to strengthen their position and dominance in the international market. The goal of branding is to create a "personality" for each product or company, allowing consumers to identify with its values when making a purchase. The promotional message is often associated with movements such as social equality, environmental protection, and anti-racism, projecting values and norms beyond the mere promotion of products.¹⁸

The strategic advertising approach, which integrates product promotion with a broader social context, sets the stage for understanding how advertising shapes and is shaped by mass culture and consumer behavior. Advertising derives from mass culture and the "ideology of consumption;" it presupposes and reinforces it. Mass culture is directly related to mass production and the mass availability and distribution of goods.¹⁹ The role of advertising both supports and perpetuates the culture of consumption, which, in capitalism, is seen as evidence of progress and a means of satisfying human wishes.¹⁹ Although some of these necessities are essential for survival, advertising often creates desires for specific products. Many of the needs portrayed in advertisements are artificially constructed and deliberately designed to affect consumer behavior.

The product's "personality," as conveyed through meticulously designed audiovisual elements, aligns with the consumer's own personality, creating a powerful emotional and communicative connection. This emotional association influences the psychology of the audience, initiating a perceived sense of "need." Companies employ a structured approach to product promotion, following a

linear sequence through which the advertising message progresses. Initially, the source of the message establishes contact with the potential customer. This initial reach-out is crucial, setting the stage for all subsequent interactions. Once contact is established, the recipient embarks on a complex psychological and cognitive journey. This process unfolds hierarchically, with each step building upon the last: Exposure – Attention – Comprehension – Interpretation – Attitude Formation. The goal of this carefully crafted journey is to inspire action, which could manifest as a purchase or even advocacy for the product. The new or reinforced attitude serves as a bridge, connecting the cognitive processes to tangible outcomes.¹⁴

The impact of music and its extramusical attributes has been shown to manipulate various psychological variables, such as mood and purchase intention, either positively or negatively. The musical elements may include tempo, speed, rhythm, and tonal function. Extramusical elements – those aspects beyond the inherent properties of the music itself – usually pertain to the approach of advertising, its duration, brand recall, and how the advertising message is processed.¹⁴

To better understand these two properties regarding sound and advertisements, Dyer suggests two types of analysis: (a) Non-textual and (b) Textual.²⁰ Non-textual analysis relates to the meaning that the creator and the viewer's attribute to the work, whereas textual analysis is usually conducted by an analyst or expert who tries to signify particular content. The primary step of this practice is to define the topic of the commercial, which will then lead to uncovering its overall meaning.²⁰

Finally, Anisimova *et al.* in their research on popular music and lyrics in audiovisual advertising identified four main functions: (a) Focusing on emotion, (b) Highlighting the protagonist's relationship with the company or product, (c) Emphasizing the narration, and (d) Portraying the protagonist's central image.²⁰ These findings provide valuable insights into how audio elements can be strategically employed to enhance marketing effectiveness in television and similar media.²¹

Following this rationale, studies have demonstrated that incorporating popular music into advertising campaigns can profoundly influence viewer engagement and shape brand perception. An important theme that emerges is that popular music attracts more attention than an original instrumental piece, especially when it includes variations of well-known verses to promote the sponsor.²² Viewers experience a sense of security through familiar sounds or songs, fostering trust between consumers and producers while strengthening product association.¹⁴ In this way, the public helps shape what is considered popular music and vice versa.

The role of music in advertisements can vary widely. Sometimes it serves as a subtle backdrop (background music) that enhances the overall atmosphere without drawing attention to itself. At other times, it is prominently featured (foreground music), commanding the viewer's attention and becoming a central element of the commercial's impact. Foreground music directly influences emotions and makes the ad more memorable, but it risks overshadowing the main message. It often reinforces the narrative through tone or lyrics. In contrast, background music enhances the mood of the ad without distracting viewers' attention from the visuals or dialogue. Both approaches can effectively shape audience engagement, but their use depends on whether the goal is to evoke a strong emotional response or subtly complement the ad's content.²¹

The processing of advertising information is an inherently cognitive process that requires critical analysis of its meaning. The aim is to encourage the audience to engage with the content and persuade them of the product's value. An emotional reaction to a product helps establish a basis for communication. As a strategic tool, music stimulates and amplifies these emotions, playing a crucial role in both the execution and effectiveness of advertisements as it significantly influences and fulfills their promotional objectives.

Building on these theoretical insights, this paper explores the function of music and audio in television ads and their contribution to the overall impact. It systematically examines these elements based on established analytical standards, providing a comprehensive understanding of their role in TV advertising.

5. Data and methods

This study forms part of a broader research project that progressed through stages of theoretical foundations, analysis, and interpretation. It employs a systematic approach to examining advertisements, utilizing a custom analytical table of elements. The insights derived from this comprehensive data breakdown have been integrated into the commentary section, enriching the analysis of the case studies. By applying this interpretive model, the study yielded critical findings regarding the commercials under examination.

As previously discussed, the theoretical framework draws on fundamental concepts from renowned scholars on musical meaning and music as a cultural practice. The empirical section applies these concepts to Greek television advertisements, analyzing them in chronological order. A primary limitation of this chronological analysis is the inadequate access to archival material; many older

advertisements are not readily available online. This lack of accessibility hindered the comprehensive evaluation of the advertisements over time; moreover, it restricted our ability to contextualize these advertisements within their historical and cultural frameworks. However, we compiled a substantial body of empirical material comprising a considerable number of advertisements. Each advertisement underwent a thorough musicological, interpretive, and semiotic analysis structured around 10 key questions, as presented in [Table 1](#).

The main points establish a sophisticated foundation for textual analysis and create an internal dialog between the researcher, as viewer/listener, and the data. These methodical “steps” lay the groundwork for a comprehensive examination of the commercials’ content, structure, and impact on the audience. This methodical approach illuminates how music and sound interact with the visual narrative in advertisements, revealing insights into their cultural significance and persuasive strategies.

6. Music and advertising in Greek television: Exemplary cases of analysis

Over the past 50 years, the advertising industry has played a crucial role in shaping the contemporary Greek economy. Although the first advertising agencies emerged in Greece during the 1870s, it was the post-war era, between the 1950s and 1970s, that marked the rise of advertising as a dominant promotional force in the country.²³ The industry’s growth accelerated with the advent of private television stations and the increased number of national and local channels. Consequently, television airtime became highly valuable; it’s worth determined by viewership metrics and broadcast sponsorship, both essential for sustaining and expanding these channels.¹⁹ Advertisements, in turn, both influenced and were influenced by this television landscape.

Table 1. Key questions for analyzing the television advertisements

#	Key questions
1	Theme and subject
2	Setting (place, time, duration, space, and context)
3	Characters and their roles
4	Socioeconomic and cultural elements
5	Relationship between visual, verbal, and other elements
6	Symbolic content and significance
7	Function of musical accompaniment and sound
8	Characteristics of music and sound
9	Cognitive function of consumer (central or peripheral)
10	Techniques employed

Greek advertising has long been embedded within the cultural norms and societal stereotypes of its time. Early television commercials often reinforced these stereotypes through both visual and auditory cues. For instance, in the 1960s and 1970s, women were also exclusively depicted as housewives using advertised products to solve domestic problems.¹⁹ Advertisements would often include catchy jingles and slogans that reflected these gender stereotypes, making them memorable and pervasive. A well-known example from this era is a detergent commercial that showed a woman in a woman happily singing about the product’s cleaning power in a kitchen setting, reinforcing the notion that domestic chores were a woman’s primary responsibility.²⁴

The social impact of these stereotypical representations was multifarious. On one hand, they reinforced traditional gender roles and societal expectations, potentially limiting the aspirations and opportunities for women beyond the domestic sphere. On the other hand, they also created a sense of nostalgia and familiarity for some viewers, which advertisers exploited to build brand loyalty.²⁵ As Greek society evolved, so did the representation in advertisements, with the 1980s and 1990s gradually introducing more diverse portrayals of women, such as career-oriented professionals. However, this transition was slow and often met with resistance from more conservative segments of society.²⁴ In recent years, Greek society has experienced significant changes, becoming more inclusive and shedding many of the stereotypical norms that once defined it. This evolution has resulted in more diverse representations within Greek culture.

An examination of Greek advertisements unveils a nuanced interplay between tradition and modernity in portraying Greek identity. Although traditional Greek values remain prevalent in many societal and cultural norms, there is a discernible shift toward more contemporary representations. Modern televised Greek advertisements increasingly reflect an evolving national identity that balances time-honored customs with cross-cultural, global, and progressive ideas. The balance between tradition and progress in advertising offers valuable insights into the ongoing transformation of Greek culture and society. By taking a socially aware approach, marketers aim to create resonant and persuasive product promotions that speak to consumers’ social realities rather than relying solely on product attributes or rational arguments.

Greek advertisers recognize the importance of sound in enhancing imagery and messaging. This section presents case studies focused on the visual and audio content of advertisements on Greek television from 2015 to 2020, selected from the available material on YouTube’s platform.

The analytical part of the research highlights the structural analysis of the audio, verbal, and visual material and their relationship with the message and purpose of the advertisement. The two main categories are image and music analyses. Within these two categories, smaller units emerged such as the directorial approach to advertising, the general context, social values and standards, the interactions of the individual elements to show the final meaning, distinct symbols, and signs, and the role of the cognitive approach to advertising, considering the aforementioned theories on the relationship between moving images and sounds.

The qualitative research utilized an analytical table with its main columns/categories being scene, time, music, image, and comments. The term “scene” refers to changes in scenes, actions, or images. “Time” was related to the duration of each part of the commercial, whereas “music” covered all the audio elements. Anything related to the visual aspect belonged to the “image” column. In the “comments” section, additional observations were included, which were helpful in the detailed review of each advertisement.

The emotional tone of the plot is essential and was, thus, separately analyzed in each advertisement. Advertising is a simplified form of art, much less complex than the art of cinema, so the emotional context is usually quite distinct. The interdisciplinary approach proposed by Salgar forms a basis for analyzing the commercials under consideration.³ The selected advertisements were created by both multinational and well-known domestic companies in the Greek market. Aired during prime-time viewing hours on major private channels, the advertisements targeted a broad audience by associating commodities with everyday needs and emphasizing happiness, quality, and status, which would resonate with households across the nation. Presented below are six case studies, spanning from 2015 to 2020, that illustrate both the symbolic interpretations of the commercials’ content and the methodology of the audiovisual analysis used.

6.1. Case study I: Bring it home to me by Coca-Cola – “Better together” (2015)

The advertisement for the renowned multinational soft drink company Coca-Cola is a succinct and emotionally rich narrative lasting approximately 29 s. This ad presents five main scenes depicting the progression of family life. In particular, it visually narrates a child’s development from taking their first steps to achieving independence during adolescence. Each step of development features different characters, creating an impression of a parallel timeline, although the storyline itself is linear. The main message

of the ad is “Better together.” Across a combination of visual, auditory, and textual elements, the advertisement emphasizes family unity and Coca-Cola’s role in facilitating these connections.

Carefully chosen musical elements accompany the five distinct scenes. The opening scenes feature a brief introductory piece with a tempo of 80 BPM in a 12/8 blues style, set in G major. The instrumentation, presumably digital, includes keyboards, drums, and guitars. This musical introduction establishes a nostalgic and emotional tone for the narrative.

The visual storyline begins with images of parents observing their child’s early developmental milestones, such as crawling and taking their steps. These scenes are accompanied by captions that highlight the challenge of maintaining close relationships with children as they grow up. The opening scenes evoke feelings of joy and parental pride. The third scene depicts a mother smiling as she sends her child off to school, continuing the joyful tone. However, the fifth introduces a shift in emotion, showing a teenager entering the house without acknowledging his mother and isolating himself in his room. This visual progression is mirrored in the background lyrics (Table 2), which transition from “laughed” to “left,” symbolizing the emotional distance between parents and their teenage children.

Each image evokes a range of emotions, from joy to anguish, with the primary purpose being to move the audience. The emotional charge adds depth to the advertisement and contributes to the dynamic development of its plot. Musically, the commercial follows a linear and dynamic melodic course, building to a gradual climax. This technique gives the music both expressive and temporal functions. The powerful combination of visual and auditory elements taps into viewers’ instincts, leading them to respond emotionally rather than logically. The ad’s argument (“Better together”) carries social significance and

Table 2. Bring it home to me by Coca-Cola – “Better together” (2015)

#	Original lyrics
1	<i>You know I laughed, ha ha?</i>
2	<i>When you left</i>
3	<i>But now I know</i>
4	<i>I only hurt myself</i>
5	<i>Bring to me</i>
6	<i>Bring your sweet loving</i>
7	<i>Being it home to me</i>
8	<i>Yeah</i>

implication. Coca-Cola was among the first companies to actively promote social values through advertising.

In terms of thematic structure, the commercial's first scenes are interrelated. From a couple watching their baby crawl to witnessing the baby's first steps, a caption appears stating: "You know, the older kids get, the harder it is to keep them close." This phrase introduces the underlying theme of the commercial: parents must adapt to each stage of their child's development. The initial scenes show happy parents during their child's infant and toddler stages, followed by a growing sense of detachment as the child starts school and engages in other activities. This sense of parental detachment reaches its peak during teenage years. However, the persistent mother in the final scenes finds a way to reconnect with her reclusive son. The caption states: "Luckily, you know all those little secrets that bring him back to you." That secret is none other than a bottle of Coca-Cola. The child's departure is temporary, but Coca-Cola accompanies all moments and feelings.

The advertisement resolves through the mother's reaction: preparing a family meal accompanied by Coca-Cola. This action is portrayed as the "secret" that reunites the family, aligning with the caption "Because where you feel happy, you always want to return." The musical accompaniment reinforces this theme with the lyrics "Bring your sweet loving, bring it home to me." The advertisement concludes with the Coca-Cola jingle and the slogan "Better together, open happiness," effectively positioning the brand as a significant facilitator of family bonding and shared contentment.

Advertising design often focuses on values and concepts beyond the purchase itself. In this case, Coca-Cola connects its soft drink with the value of family and the concept of "Together, we are better." On a psychological level, purchasing a product linked to social values fosters a subconscious connection between the product and the projected value. That is why the revelation of Coca-Cola takes place at the end of the advertisement.

Undoubtedly, the cover of Sam Cooke's well-known song "Bring it home to me" plays a central role in Coca-Cola advertisements. The song drives the narrative, with its lyrics serving as the sole vocal element. The lyrics accompany each frame harmoniously, building step by step toward the product's unveiling and culminating in the singer's emphatic "Yeah, yeah, yeah" at the finale. This crescendo affirms the emotional and positive association with Coca-Cola. The lyrics function to evoke emotions and support the storytelling, as the characters remain silent, expressing their feelings through facial expressions. The combination of lyrics, captions, and subtle verbal symbols delivers the advertisement's message.

Coca-Cola aimed for the ad to resonate on a global scale. Although Greek captions "localized" the ad for specific viewers, the overall scope was international. As noted earlier, popular music is a common tactic for reaching a broad audience. The familiarity and comfort of popular music draw listeners in, making this emotional aspect more engaging.

Musically, the ad is structured in G major, providing a seamless connection between the scenes and contributing to a harmonious flow that culminates in the Coca-Cola branding. Sound effects add realism to the visuals, whereas the music itself remains non-diegetic. The rhythm of the imagery and the movements of the protagonists align with the singer's performance. However, the musical accompaniment's rhythm is more intricate, creating a counterpoint textual against the visual flow. Although the voice follows a harmonic progression, the music develops contrapuntally. The tempo of the track is approximately 10 BPM faster than the original version, maintaining a 12/8 blues feel. Although 4/4 is a more typical time signature, the compound time structure of blues gives the track a unique sonic identity. The track's danceable pulse emphasizes the interplay between the "downbeat" and "upbeat," with the words falling on the upbeat creating a circular, uplifting motion that can be "stimulating."

Despite the moderately fast tempo, the distinct rhythm stands out, drawing the viewers' attention to key moments in the ad. The commercial concludes with Coca-Cola's well-known jingle. The transition from the 12/8 rhythm of the song to the 4/4 rhythm of the jingle is particularly interesting. The 12/8 rhythm divides into four main pulses that naturally lead into the 4/4 time, with a rubato moment at the transitional point (00:26) seamlessly guiding the listener to the jingle. This creates a smoother progression to the finale, which presents Coca-Cola's signature slogan: "Better together, open happiness."

6.2. Case study II: Nespresso double coffee capsules – "What else?" (2016)

For over a decade, George Clooney has been Nespresso's most renowned and credible ambassador. The brand has become intrinsically linked with the actor's name and sophistication. In the 2016 commercial for the double espresso capsules, Clooney co-stars with the well-known actor Jack Black. This short TV ad, lasting just 20 s, revolves around the phrase "What else?" and encourages viewers to consider the unique qualities of Nespresso coffee. Clooney, in a rural courtyard, prepares a cup of Nespresso. When the coffee is ready, Black attempts to impress a woman by using Clooney's catchphrase, "What else?" in his own style. Clooney is surprised by the alteration and wishes to correct

him. Black experiences a moment of realization as the true meaning of “What else?” dawns on him.

Nespresso coffee serves as catalyzes for dialog between the protagonists and the elegant woman. Her attractive presence stimulates peripheral cognition. However, logical processing is when invoked through the protagonists’ dialog, encouraging the audience to consider the high quality of Nespresso. Thus, both routes of cognition operate simultaneously for maximum impact.

The music is divided into two main ideas: one with light melodic mobility and the other with a more stagnant flow. The musical sequence provides a sense of space and time and is descriptive. When the music is sparse and composed of few notes, there is a deceleration in time and intensity. In contrast, when the theme resumes, the passage of time seems to go unnoticed. The main motif of the melodic line is based on note A. The musical composition is built around a short phrase. This sequence of notes forms the characteristic melody that has become synonymous with the Nespresso brand and mirrors the movements associated with its coffee.

The commercial opens with a brief musical introduction featuring an A minor chord and a bell-like keyboard sound. This sets the stage for introducing the protagonists, George Clooney and Jack Black, through a concise exchange. As the scene progresses, the music develops, maintaining a tempo of approximately 72 BPM. The visuals alternate between close-up shots of the coffee machine and the protagonists preparing their favorite brew. The absence of dialog and minimalist music during this scene implies that the product speaks for itself.

At the 5-s mark, the music fades, returning to an A minor arpeggio or broken chord. A stylish woman enters the scene, initiating a brief conversation about Nespresso. The dialog is punctuated by musical notes that correspond to the action, such as a double A note when the protagonists exchange glances, and two F# notes in succession as the woman takes two coffees and leaves.

The commercial then shifts focus back to Clooney and Black, with a chromatic slide from G to G# to A in the background. Their dialog is brief and pointed, culminating in Clooney’s catchphrase, “What else?” accompanied by a gesture signifying perfection. The ad concludes with the signature Nespresso musical theme. The final frame displays a black banner with the company’s logo, the campaign slogan “What else?” and an invitation to learn more on the Nespresso website.

The sparse notes match the protagonists’ movements. The concept of duality is reflected in the product title, and the music embodies this duality with double notes where

appropriate. The double notes rhythmically highlight the protagonists’ actions and dialog. The repetition and enhancement of the basic melody give the image a distinct identity, aiding in the easy recall of both the brand and the product. Although the melody is perfectly synchronized with the visual movement, it does not serve as a realistic reference but functions as indicative punctuation for the ad’s key verbal messages. In other words, the music is non-realistic but aligns with the brand and product.

Throughout the commercial, the music and visuals work together to create a sophisticated atmosphere that aligns with Nespresso’s brand image. The minimal dialog and precise musical cues underscore the product’s quality and the brand’s confident market positioning. Notably, the protagonists’ attire is relatively formal, and suited for a corporate environment. The advertisers intend to show that coffee is an everyday luxury, stylish, and suitable for both before and after work. Finally, the setting reinforces the “authentic” Italian origin of Nespresso coffee.

The commercial capitalizes on George Clooney’s star power and charm as the central character, creating immediate appeal and recognition. While promoting coffee, the ad subtly emphasizes themes of quality, authenticity, and the social aspect of coffee consumption. The use of carefully crafted visuals and a distinctive musical score enhances the storytelling and solidifies a memorable brand identity.

6.3. Case study III: Croissant Molto Cool – “Being with friends is cool” (2017)

In the vast, frozen expanse of the Arctic, an unexpected scene unfolds, blending classical music, wildlife, and the simple pleasure of a Molto croissant. This captivating narrative is meticulously crafted through a series of scenes, each rich with imagery and sound, creating a surreal yet heartwarming experience that combines fantasy with reality.

The story begins with the timeless elegance of Johann Strauss II’s *Blue Danube* waltz, played in D major at an approximate tempo of 96 BPM. This classical piece sets a serene and majestic tone, perfectly complementing the image of a frozen landscape, possibly in the Arctic. An indigenous Arctic dweller (Inuk), isolated in this icy wilderness, is seen fishing. Amidst this solitude, he decides to take a break and opens a package of Molto croissants. The sound of the package opening is surreal – a scratch that pierces the silence – adding a touch of the extraordinary to the mundane. This scene, though simple, is laden with symbolic elements. The presence of penguins and polar bears, though geographically inaccurate (penguins inhabit the South Pole, whereas polar bears roam the North)

serves a greater purpose. It underscores the theme that Molto croissants bring everyone together, transcending boundaries and uniting disparate elements in harmony.

The package's opening at 00:14 creates a distinguished noise that gives depth to the image and breaks the tranquil, frozen setting. Similar to the sound of breaking ice, the noise attracts various animals of different shapes and sizes to the Inuk's location. The distinctive sound thus serves as a guiding point. After the pause at 00:18, the music resumes with a more melodic and less rhythmic style. The scene captures a friendly gathering of participants; their faces alight with genuine pleasure in each other's company. The caption "Being with friends is cool" at 00:32 elegantly underscores the moment. Suddenly, the music ceases, drawing attention to an unexpected detail: A seal continues clapping enthusiastically, seemingly in appreciation of Strauss's classical masterpiece. The advertisement draws an indirect comparison between the music and the sound produced by opening the package. The distinctive crinkle of unwrapping a Molto snack is presented as a classic, familiar sound that resonates with consumers on a nostalgic level. This auditory cue cleverly links the product to positive memories and emotions, enhancing its appeal beyond mere taste. The ad subtly suggests that enjoying a Molto croissant is a multisensory experience by equating the package's sound with music.

The narrative of the commercial exploits two parallels: One visual and one auditory. The word "cool" in the caption coincides with the frozen landscape, whereas the sound of the packaging relates to the sound quality of the waltz. "Cool" cleverly ties the emotional warmth of friendship to the literal cold of the Arctic setting.

Finally, at 00:36, the Molto packaging and the word "cool" dominate the screen, accompanied by a woodwind sound ending on a half cadence at the fifth note of A major. This cadence leaves a sense of incompleteness, implying there is more to come and instilling anticipation, as the melodic phrase ties to the product packaging. The marketers aim for this feeling to lead to the purchase of the product. The final image shows the Molto logo and croissant packaging set against the Arctic landscape, suggesting that the story – like the enjoyment of a Molto croissant – is never truly over. It continues, inviting us to savor its simple pleasures repeatedly.

Although the auditory function of music in relation to the visuals is non-diegetic, its role within the storyline is descriptive. The production incorporates music and sound effects as integral elements of the narrative, enriching the representation of both time and space. The commercial appears to have been filmed in a studio, with digital tools to

create a realistic setting. Every sound added is essential, as it enhances the authenticity of the images and adds value.

Molto's parent company, Chipita, is a well-known Greek food firm with exports reaching European countries, the Middle East, and beyond. Since 1996, the company has been promoting its products internationally. The choice of Johann Strauss's waltz *Blue Danube* is deliberate. This renowned classical piece imparts flow, value, and quality to the imagery. Strauss's composition beautifully illustrates the Danube River through musical mastery, and the creators of Molto's commercial sought to adopt this descriptive capacity and apply it to the visuals. No other genre of music would have fit the frozen landscape and the depiction of rare Arctic animals as appropriate.

The storyline, woven through music and imagery, transcends everyday life to deliver a powerful message of unity and joy. The Arctic, with its breathtaking beauty and silent expanse, serves as a backdrop for a universal story that resonates with warmth and togetherness, all brought to life by the delightful taste of a Molto croissant.

However, the advertisement's message extends beyond mere consumption, emphasizing the value of friendship. The ad's core message is that the Molto croissant unites people and overcomes loneliness. In this case, though, the Inuk's friends are animals. This creative decision possibly serves multiple purposes. By featuring animals instead of humans, the commercial captures viewers' attention and piques their curiosity. The juxtaposition of the written message with unexpected visuals creates a subtle tension that prompts viewers to process the information more deeply. The contrast between textual and visual elements activates different cognitive pathways, leading to enhanced retention and understanding of the ad's central message. This approach guides viewers to focus on the theme, as they subconsciously differentiate between what is written (the words) and what is shown (the images).

Finally, another unrealistic element of the commercial is that although Inuk's primary source of food appears to be fishing, he still has a croissant on hand. This symbolizes the product's wide appeal and accessibility across the globe. By inference, Molto croissant's theme blends reality and fantasy, allowing the peripheral route of cognition to take precedence over the central route.

6.4. Case study IV: Loux orange juice – "I like to Loux-out dancing" (2018)

In the competitive landscape of soft drink marketing, companies often employ innovative strategies to capture consumer attention and build brand loyalty. In this case, the Loux soft drink commercial, set on the Greek island of Naxos, presents a vibrant and energetic portrayal

of summer fun in just 36 s, blending traditional Greek elements with modern pop culture.

The ad opens with a young tourist holding a map and camera, searching for a Loux orange juice. As a bottle of Loux is opened, the distinctive sound triggers a lively bouzouki-led dance-pop arrangement in a C minor scale, setting the tone for an island-wide celebration.

The presence of a 20-year-old young man symbolizes the target demographic of adventurous, enthusiastic consumers. His initial confusion—holding the map of Naxos upside down—sets the stage for a journey of discovery. This narrative device engages the viewer by creating a relatable protagonist. As the story unfolds, a diverse cast of characters is introduced, including a blonde woman dancing, an elderly gentleman, a shepherd, a little girl, and a fisherman. This eclectic mix of individuals represents various aspects of Greek culture and lifestyle, effectively broadening the appeal of the product across different age groups and social backgrounds.

The music guides the audience through a series of colorful vignettes that display the diverse inhabitants of Naxos embracing the Loux spirit. In front of a cafe, a blonde woman dance, while an elderly gentleman in traditional black attire sways his cane to the rhythm, sipping Loux orange juice instead of the more typical Greek coffee. This scene cleverly juxtaposes old-fashioned and contemporary features, highlighting how Loux brings together different generations. As the catchy refrain “I like to Loux-out dancing” kicks in, the commercial shows various islanders caught up in the Loux fever.

A shepherd dances on a hilltop, surrounded by goat – a nod to Naxos’ cheese-making tradition. A little girl in a diving mask performs in front of a school adorned with sea-life murals, emphasizing the island’s connection to the sea. A barefoot fisherman grooves to the music from his transistor radio, blending traditional island life with modern Loux vibes. The protagonist’s journey through Naxos becomes a quest to find the source of this infectious energy. He encounters twin girls on the beach in summery outfits, blending traditional and freestyle dance moves. Bottles of Loux bounce to the beat on stone terraces, and oranges leap in rhythm, visually representing the drink’s vibrant flavor.

The commercial cleverly fuses the words “Loux” and “dance,” creating a new idiomatic phrase (“Loux-out dancing”) that encapsulates the vitality and well-being associated with the drink. This wordplay is emphasized when the tourist finally reaches a Loux stand, takes a sip, and immediately starts “Loux-out dancing” with newfound energy. The ad concludes with a montage of

all the characters enjoying Loux, reinforcing the idea that the drink unites people of all ages and backgrounds for a shared experience of summer joy. The final tagline, “I like to Loux-out summer,” solidifies the brand’s association with fun, energy, and the Greek island lifestyle.

Throughout the commercial, there’s a seamless blend of traditional Greek elements – such as the bouzouki (a traditional Greek instrument), the island setting, and the elderly man in traditional dress – with modern pop culture references and dance moves. This fusion creates a unique identity for Loux as a brand that honors Greek traditions while embracing contemporary fun. The use of the well-known song *I like to move it* by Reel 2 Reel as the base for the Loux jingle provides a familiar hook for viewers, while the Greek lyrics (Table 3) and setting give it a distinct local flavor. The commercial effectively positions Loux not just as a refreshing drink but as a catalyst for joy, dance, and community spirit on the beautiful island of Naxos.

The advertisement’s soundtrack plays a crucial role in creating a cohesive and memorable experience. The audio begins with the distinctive sound of a bottle opening, then shifts into a dance-pop arrangement featuring the bouzouki. This fusion of modern and traditional components in the music mirrors the brand’s positioning as a contemporary product with strong cultural roots. Using a cover version of the famous song *I like to move it* with altered Greek lyrics to create an instant connection with the audience while establishing a characteristic brand identity.

Table 3. Loux orange juice – “I like to Loux-out dancing” (2018)

#	Translated lyrics
	(Give it!)
1	<i>I like to Loux-out dancing</i>
2	<i>I like to Loux-out dancing</i>
3	<i>I like to Loux-out dancing</i>
4	<i>Do you like to Loux-out?</i>
	(Give it!)
5	<i>I like to Loux-out summer</i>
6	<i>With a Loux in hand</i>
7	<i>I like to Loux-out summer</i>
8	<i>Do you like to Loux-out?</i>
	(Give it!)
9	<i>I like to Loux-out summer</i>
10	<i>I like to Loux-out summer</i>
11	<i>I like to Loux-out summer</i>
12	<i>Do you like to Loux-out?</i>
	(Give it!)

The Loux beverages advertisement exudes a strong summer vibe, reinforcing the brand's association with fun and good times. The jingle begins with a few notes played on the bouzouki, a long-necked string instrument with a distinctive sound that is instantly recognizable to Greeks of all ages. This traditional culture quickly transitions into modern composition, reflecting the blend of heritage and contemporary flair that defines the brand. The lyrics, adapted for advertising purposes and sung in Greek, emphasize the connection between the consumer and the product. Both the lyrics and the music are central to driving the action, as the visuals align perfectly with the audio, making sound the primary driver of the narrative.

The young protagonist is portrayed as a tourist searching for an orange grove on the island of Naxos, likely on vacation, as suggested by his attire and the camera around his neck. The map of Naxos clearly signals the location to the viewer. From the outset, the protagonist realizes he does not need the map to find Loux; instead, he follows the musical cues guiding him toward it. The music and sound serve as navigational tools, with the visuals confirming that these auditory signals are leading him in the right direction. At every turn, the color orange is prominently featured, referencing the orange soft drink. The dance moves of the people he encounters also serve as part of the "acoustic map," reinforcing the lively, energetic theme of the ad.

The new phrase "Loux-out dancing" embodies the concept of passionate movement. If people were static or reacted differently, they would likely not align with the theme. The rhythm, music, and dance moves are integral parts of the ad's thematic puzzle. The music is realistic and plays a crucial role, reflecting the vibrancy of Loux orange refreshment. This is why everyone engages in the Loux dance. By the end, the protagonist reaches his destination, tastes the orange soft drink, and begins dancing enthusiastically, emulating the dance moves of the people he encounters along the way.

The movements of the characters convey intense excitement. The viewer is led to believe that this is an original type of dance and bodily motion. This approach makes the promotional campaign itself stand out and establishes a unique identity closely tied to the trademark. The brand-new wording is distinctive, memorable, and effectively supports the slogan. Finally, the final frame displays all the flavors of Loux soft drinks, and the metallic sound of the bells, heard simultaneously, matches the glass packaging. Glass produces a crystalline sound when struck, whereas plastic sounds hollow. Although this detail may seem minor, it aligns seamlessly with the visual elements. Moreover, although the ad highlights the classic orange

flavor, it also includes seven other flavors. This strategy efficiently reminds the audience of the product's variety while saving time and space.

6.5. Case study V: Fage Total yogurt – "Simply captivating" (2019)

The advertisement for Fage Total yogurt is a sophisticated blend of visual and auditory elements creating an attractive narrative that transition from an imaginary representation to everyday reality. Fage employs cinematic sound effects to draw a parallel between the classic total yogurt and a snow-covered landscape.

The ad begins with a surreal, digitally manipulated 7-s sequence featuring crystalline sounds reminiscent of soft skating on ice, accompanied by distorted effects. This auditory landscape is complemented by metallic chimes and dreamcatcher-like sounds, creating an ethereal atmosphere. The visual representation mirrors this otherworldly soundscape, depicting the yogurt as a snow-capped mountain with cereal flakes falling like snow.

Following the "explosive" strawberry flavor, cereal flakes descend upon the white yogurt, reminiscent of snowflakes. At 00:08, the scene transitions, bringing the viewer back to reality. A young girl, seated at the kitchen table, samples Total's "captivating" flavor. Her mother is visible in the background, engaged in household tasks. The expressions and realistic settings are notably quotidian, devoid of any palpable enthusiasm. The ad's underlying message is that classic Total yogurt, with a fruity topping, adds a pleasant element to daily life, using the peripheral route of persuasion.

The crystalline resonance sounds like a gentle glide on a cymbal with a distortion effect, caressing the frozen yogurt and highlighting the brightness of its white hue. Then, the explosive red color of the strawberry is accompanied by the sound of wind chimes and the gradual acceleration of a propeller. These auditory effects evoke the element of air, giving depth to the image's spatial dimension. Finally, a harmonious keyboard accompaniment provides a foundation for the unfolding auditory overlay. After tasting the yogurt, an auditory decompression occurs, leaving only the authentic sound of a fan audible. The previous sound effects musically describe the sensation evoked by the yogurt's flavor.

As a result, the music remains a non-realistic narrative element, yet it plays a crucial role in communicating the commercial's message, making it descriptive in nature. The narrator echoes the slogan "Simply captivating" as the final scene shows the classic Total 5% yogurt packaging. The ad concludes without musical accompaniment, with the final image integrated into the scene. The absence of music at

this point allows the viewer to focus exclusively on the visual element and the advertising message.

To summarize, the narrative arc of the ad can be divided into three distinct phases. The opening scene (00:00–00:07) establishes a symbolic connection between the yogurt and a winter landscape, using digital sound manipulation and visual effects to create an immersive, dreamlike experience. The transitional sequence (00:08–00:11) features a gradual crescendo of propeller-like sounds, signaling a shift from the imaginary to the real world. This transition is visually represented by zooming out from the spoon, revealing that the entire “frozen” sensation is contained within it. The final segment (00:12–00:20) shows a domestic setting with a young girl eating yogurt at the kitchen table while her mother performs household tasks. The color palette shifts to cool blue tones, grounding the scene in everyday reality.

The ad uses various symbolic elements to convey its general message. The initial fictitious sequence symbolizes the sensory experience of consuming Fage Total yogurt, presenting it as an extraordinary, “captivating” pleasure. The transition to reality – from fictional scenery to the mundane domestic scene – suggests that this exceptional experience is accessible in everyday life, sparking the audience’s intrigue. The contrast between the narrator’s enthusiastic proclamation and the conventional household backdrop is not only a subtle tension but also an entrancing one, implying that the product adds excitement to routine activities. The Fage Total yogurt ad effectively uses cinematic sound effects and visual metaphors to elevate a common dairy product to an extraordinary sensory experience. It suggests that this yogurt can bring a pleasant note to daily life by juxtaposing illusory elements with commonplace conditions. Ultimately, the message “Simply captivating,” reinforced both by the narrator and on-screen text, encapsulates the product’s promise of bringing excitement to the ordinary.

6.6. Case study VI: Vitam Soft Butter – “Taste and proper nutrition” (2020)

The advertisement for Vitam Soft Butter is brief (lasting just 11 s) and has a relatively simple structure. The virtual presentation of Vitam Soft Butter is primarily informational and showcases the “transformation” of its packaging. The goal is not to promote the product or offer a special deal, but to highlight the shift from the classic yellow packaging to its new white design. This serves as a reminder of the product’s quality and taste. The ad seeks to persuade through the central route of cognition, focusing on informing viewers about the packaging update and the nutritious nature of Vitam Butter.

The round-shaped packaging transforms into a drum as two butter knives strike it. The distinctive, introductory

sound of a circus drum roll is heard. This musical opening is accompanied by the announcer’s phrase, “Welcome your favorite Vitam” as if presenting the next act of a show. The drum sound culminates with a cymbal crash, emphasizing the word “new.” In this instance, the sound is realistic and central to the action. The auditory components convey the advertisement’s message, and the visuals become part of this musical presentation.

After the drum introduction ends, the packaging changes. At 00:04, the new packaging appears in white and gold hues. The music transitions to a carefree, relaxed, and pleasant melody in D major that sounds familiar and emphasizes the final message: “Taste and proper nutrition.” The transitional music, with a tempo of around 84 BPM, is non-diegetic and features MIDI sounds and a distinctive whistle. The moderate speed alleviates the intensity of the drum sound for the audience. The whistle enters toward the end of the advertisement and complements the light-hearted mood. This auditory element, along with the music, concludes on an A note, deliberately avoiding a perfect cadence. This musical choice creates a sense of openness and continuity rather than finality. Such a technique engages the listener’s cognitive processes, potentially enhancing the advertisement’s memorability and effectiveness. The unresolved musical ending subtly encourages the audience to remain engaged with the brand, activating both auditory and mnemonic pathways in the brain.

The advertisement serves an instructive purpose, reassuring the audience that only the packaging is changing, while the content remains the same. As in previous advertisements, the dynamic evolution of the product is observed over time. Whether it involves new flavors, innovative shapes, or simply new packaging colors, it appears that companies aim to demonstrate constant evolution, suggesting that goods and services are modernizing while quality and values stay true to tradition. This short Vitam Butter advertisement effectively communicates its message of packaging change while maintaining product consistency through visual transformation, strategic sound design, and concise narration. The commercial employs both central and peripheral routes of persuasion, appealing to consumers’ rationality regarding product quality and their emotional connection to familiar branding.

7. Discussion and conclusions: Interpreting music in Greek television commercials

Music and sound are integral parts of the television advertising experience, functioning as essential promotional tools for both large multinational corporations

and local enterprises. In this study, it was observed – based on the principles of musical structure – that pieces composed at fast tempos aim to convey action, excite the audience, and create an uplifting mood. These are typically associated with pop/rock songs and dance music (e.g., the Loux orange juice ad). Music with a relatively fast to moderate tempo is often accompanied by lyrics and serves a descriptive role.

The tonal range of the human voice plays a crucial role in creating melodies that are accessible, appealing, and easy for the audience to sing along with. The music accompanying advertisements can be simply reproduced by listeners. Commercials aim to support positive audience psychology rather than challenge musical or artistic abilities. It is worth noting that, in most cases, the voices were predominately male. However, this alone does not allow for conclusive insights into the role of gender in advertising voiceovers. A larger body of material and advertisements would need to be analyzed to draw more comprehensive conclusions. This study represents a limited sample and should be considered a starting point for further research.

The duration of an advertisement affects how its music will be designed and adapted to make a greater impact. The shorter the advertisement, the more cleverly the composer must manage time. The Vitam yogurt commercial is an outstanding example of this. In this case, the product itself becomes a musical instrument, showcasing how the creators of the audiovisual material collaborated with exceptional dedication to produce the best possible outcome. This ad also highlights the dominant role of sound and music in the promotional campaign. In other advertisements, such as the Molto croissant commercial, where the duration is the longest among the examples, the plot allows for greater development and narration, with the music following a slow and steady tempo. Finally, Loux's ad skillfully integrated a multitude of images within its 36-s duration, ensuring that the music not only captures all the essential characteristics of the product but also complements the local cultural ambiance with an upbeat rhythm. Nonetheless, the most notable management of music tempo and timing is exemplified by the Coca-Cola advertisement.

The harmony in the ads' music largely utilized major scales. Minor scales were observed in cases where commercials referenced the company's exceptional value or conveyed a sense of progression. Their dominant pitch-related center is placed around note A (440 Hz)—a frequency that serves as the basis for tuning a group of musical instruments to resonate harmoniously. The curators of the musical components may have chosen

this tonal focus to achieve a similar “tuning” with their audience, generating a familiar and homogeneous acoustic framework.

In certain instances, the absence of music or the strategic use of pauses accentuates an ad's meaning and overall atmosphere, as seen in the Nespresso and Fage commercials. Many advertisements typically conclude by presenting their final message and product display alongside music. Interestingly, some ads incorporate unique musical techniques to enhance their impact. For example, in the Molto croissant commercial, the music does not resolve to the tonic scale but instead ends on the dominant chord. Similarly, in the Vitam Butter advertisement, the music – written in D major – fades out on the fifth note of the scale rather than concluding with a perfect cadence. These varied approaches to scoring advertisements are designed to emphasize the promotional message and capture the viewer's attention, leaving a memorable final impression.

The same principle applies to the opening sections. Music typically begins with an introductory melody based on the tonic chord, establishing the harmonic and acoustic framework of the commercial. This technique, which precedes other sounds, aims to focus the audience on the verbal message by providing a moment of reduced sensory input. This brief respite allows for easier processing and memory retention, especially when transitioning between advertisements or from other content. In fact, these musical strategies serve as short auditory breaks between streaming videos or television programs, providing a moment of cognitive reset for the audience.

The constant influx of information on TV can be overwhelming, making moments of entertainment and enjoyment essential. Television programs often provide a respite from this data overload. In advertising production, many commercials incorporate unique and original audio and visual elements to capture the audience's attention. A standout example is the Loux advertisement, which cleverly combines speech, music, imagery, and movement, seamlessly encapsulating the entire plot within a single pun. This multisensory approach demonstrates the power of integrated marketing communications. Another notable example is the Nespresso coffee commercial, which skillfully blends dialog, action, and music.

The added value of music in image and television advertising is evident in Greek commercials, where sound actively shapes the final impression of the marketing message. It is no coincidence that many commercials often conclude with music. The intentional absence of music, though rarely used, can powerfully amplify the core idea by creating a striking contrast that captivates the audience. The strategic use of music at the end of an advertisement

underscores its importance in the overall promotional plan. Most companies, if not all, have their trademark jingle as part of their branding strategy. These musical symbols become an integral part of the product or label identity, enhancing audience recall. The elevation of sound as a primary feature in TV advertising demonstrates its immense value. Just as individuals respond to their unique names, companies have their own auditory identifiers—their own jingles. These melodic snippets are often heard throughout the commercial or at its conclusion, reinforcing brand recognition.

A successful example of building up a musical identity in advertising is Coca-Cola's 2015 campaign, which seamlessly incorporates Sam Cooke's track, transitioning from a 12/8 rhythm to the 4/4 time signature of the company's famous jingle. This integration demonstrates how music can unify an entire advertising concept.

Television commercials have evolved to target both broad and niche audiences. A representative example of this approach is Loux's advertisement, which vigorously employs the distinctive sound of the traditional Greek bouzouki, deeply rooted in the country's musical heritage and cultural identity. The incorporation of bouzouki music in Loux's advertisement serves multiple purposes. It immediately forges a strong connection with Greek culture, resonating with the local audience. As the commercial is set on the Greek island of Naxos, the music helps establish a vivid sense of place and ambiance. Finally, by incorporating this traditional element, Loux strengthens its position as a Greek company, catering primarily to the local market.

Loux's mindful use of music demonstrates how advertisers can effectively focus on specialized audiences by integrating culturally significant elements. By aligning the auditory experience with the visual and contextual aspects of the commercial, Loux delivers a more immersive and relevant message for its Greek audience. Such targeted approaches in TV advertising allow companies to connect more deeply with specific demographic groups, increasing the likelihood of their engagement and brand recall. This method of niche targeting through cultural and musical cues can be especially powerful in markets where local identity and traditions play a significant role in consumer behavior. The blend of tradition and modernity resonates particularly with Greek consumers, who value their history and cultural heritage. Anything that aligns with these principles tends to elicit a positive response.

On the other hand, in international advertising campaigns (e.g., Coca-Cola, Molto, Nespresso), the music tends to be popular, foreign, or simplistic, often omitting Greek cultural elements. Some brands targeting the international market, like Molto, capitalize on visual media more extensively to

stand out. Most commercials employ non-diegetic music and merge realistic elements with imagination. Advertising messages typically use positive reinforcement and appeal to consumers' psychology, employing techniques that rely on peripheral cognitive processing to achieve their key promotional objectives: (a) Undermining competition, (b) Reminding consumers of product value, (c) Strengthening the brand through new packaging, flavors, or complementary products, and (d) Combining tradition with modernity to boost product and brand credibility.

The digitization of media is evident in both the aural and visual aspects of Greek advertising. Musical instruments used are primarily digital, likely due to cost and time considerations. The main instruments featured are keyboards (producing various digital sounds), guitars, and drums. Between 2015 and 2020, Greece was still grappling with the financial crisis, which impacted all media sectors. Digital sound design and production provide a more cost-effective and time-efficient alternative to creating original live music while maintaining high cinematographic standards. The shift toward digital methods resulted in significant savings for advertisers in terms of both effort and money. Finally, companies aiming for maximum profit often strive for mass consumption, requiring frequent production cycles. By employing digital technologies, these companies could efficiently produce and distribute content on a large scale, meeting broad audience demands and maximizing revenue potential.

Advertisements aim to create a seamless fusion of sounds and images, presenting a unified, cohesive product to the viewer. This synergy is crucial in crafting a compelling final product that engages multiple senses. The chromatic palette in advertisements is often cleverly prearranged, with visual hues reflecting the colors of the product packaging, creating a cohesive and recognizable optical brand identity. This pictorial harmony serves as a form of "market personalization," making the advertisement an extension of the product itself. Characters in advertisements bring a human, everyday dimension to the product's narrative, acting as conduits that shift the audience's experience from perceiving the product as an object to recognizing it as a relatable subject. This approach helps potential consumers imagine themselves using the product in their own lives.

Advertisements primarily depict scenarios that appeal to the middle class, showing attractive homes, spacious environments, healthy and beautiful people, family gatherings, social interactions, smiling children, and enjoyable activities. These elements collectively create a picture of an aspirational lifestyle.

Another important observation is that though ads rely on repetition, convenience, mass production, information

retrieval, and imitation of other media – such as cinema and radio, which are considered “superior” – they leverage the rhythmic dimension of music to distinguish themselves from competitors. Notable examples include the blues vibes with a 12/8 rhythm in the Coca-Cola commercial, as well as the rhythmic treatment of swing and the 3/4 waltz pulse in Molto’s advertisement.

In short, there is an effort to integrate television’s promotional material into a broader, socially acceptable context. However, corporate firms often use subtle—sometimes deceptive—elements to make their ads stand out and capture the attention of the spectators. Analysis reveals that music and sound in Greek television advertising serve as primary tools for culturally contextualizing representations while simultaneously adding a unique touch to each commercial. Music is an integral component in both big and small screens, occasionally acting as the main conveyor of the advertising message or, at other times, supporting the commercial’s overall objective.

The principles established by academic scholars and theorists have been shown to be applicable to the audiovisual media landscape of Greek television. These principles underscore the importance of investing in music to enhance advertising in TV broadcasting. Music brings coherence to visual material by unifying scenes and action while highlighting key plot points. It can play a leading role by signaling climactic moments or periods of relaxation. It also has the power to create contrasts in a nuanced and easily understandable manner. This multifaceted functionality of music in advertising not only enhances the viewer’s holistic experience but also strengthens the broader impact of commercials, making music an indispensable element in crafting engaging television ads.

The notion of meaning is inherent in music, with its frequencies being manipulated and interpreted by humans. Although some might challenge the cognitive and psychological findings of this study, the objective principles of music, grounded in social and cultural conventions, are deeply ingrained and difficult to refute. This study highlights the importance of conducting a complementary examination and extensive analysis of the power of music and its application in advertising to derive comprehensive conclusions. Furthermore, it raises an ethical question regarding the responsible treatment of music in marketing promotion: To what extent and in what manner should this potent tool be employed in advertisements to engage audiences effectively while respecting their autonomy and avoiding any subtle “brainwashing”?

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Not applicable.

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Not applicable.

Availability of data

The audiovisual data used in this study are publicly available on YouTube and have been referenced throughout the text.

Further disclosure

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ARTICLE

Musical creation laboratory as an environment for free expression: An ethnographic observation of creative dynamics

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Abstract

This ethnographic study investigates creative dynamics in a musical creation laboratory at the University of Rio Grande, Brazil. Data collection was obtained through semi-structured interviews conducted after the accomplishment of free improvisation activities. The research focused on the testimonies of 10 volunteer musicians, emphasizing the expectations, transformations, and reflections present in their narratives. The findings highlight how emotional experiences shape musical expression, revealing the transformative role of creativity in both individual and collective artistic practices. The study revealed that the process of creative freedom was deeply influenced by the participants' emotions. These emotions, when experienced and expressed, reflected meanings and reinterpretations in how they perceived and positioned themselves both artistically and socially.

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1. Introduction

Why do people create? This question leads us to explore the mysteries of human creativity, a phenomenon that transcends cultural, temporal, and disciplinary boundaries. Creativity can be seen as an act of bringing something new into existence or giving new meaning to something. It is a process involving the combination of existing elements, resulting in new products, ideas, or experiences. However, creativity does not occur in isolation; it is deeply influenced by cultural, social, psychological, and emotional factors. Culture is expressed and shaped by language, and creativity reflects the genuine needs and experiences of individuals.¹ Creation, connected to the concept of bricolage, reorganizes existing cultural elements to generate new meanings.² The act of creating is closely tied to the state of "flow," in which a balance between challenge and skill leads to a sense of pleasure and fulfilment.³ Moreover, creativity can manifest in various ways, depending on different intelligences and individual contexts.⁴ Creativity is always emergent,⁵ and in a musical context, creation is a process that balances innovation and tradition, functioning as a culturally situated practice. Music, as a form of collective expression, conveys values, histories, and identities, establishing a continuous dialog between a group's past and present.⁶ In addition, musical creation often arises as an emotional response to life experiences, serving as a way to process and express not only emotions but also feelings, both individually and collectively. Feelings and emotions

are not merely physiological or psychological phenomena, nor are they left to chance or individual initiative. Their manifestation and bodily expression follow conventions that, while similar to language, remain distinct. Emotions emerge from a conscious or semiconscious evaluation of an event by individuals who respond according to their own sensitivity.⁷

Extensive research in musical literature has explored the role of emotional factors in creative environments, revealing that emotions play a crucial role in shaping creative expression and collaboration.⁸⁻¹⁰ However, a recent systematic review by Peters *et al.*¹¹ highlights the scarcity of high-quality empirical studies specifically addressing how music-making affects emotional regulation. While emotional and psychological support is recognized as vital for fostering creativity,¹² the anthropological dimensions of emotional and creative experiences remain underexplored in music research, with the study conducted by Ruth Finnegan on music, experience, and the anthropology of emotion being cited as one of the few references on this subject.¹³ This gap in understanding points to a broader perspective on creativity. More than just generating something novel, the act of creation also involves reinterpreting and assigning new meanings to existing elements. Creativity is not an isolated individual effort but a collective cultural phenomenon that both reflects and transforms society. Emotional factors, intertwined with these processes, not only influence personal expression but also shape the shared cultural manifestations that emerge through music.

In this context, the aim of this study is to investigate the multifaceted nature of human creativity, with a focus on its anthropological and emotional dimensions. The article explores how the act of creation reorganizes existing cultural elements to generate new meanings and how emotions and life experiences contribute to this process. The study was conducted by the Research Group on Musical Creativity at the Federal University of Rio Grande, Brazil, an interdisciplinary team of researchers in music, psychology, and anthropology. The ethnographic research focused on the testimonies of musicians who participated in a musical creation laboratory at the university, highlighting the expectations, transformations, and reflections present in their narratives.

2. Where and how does creation happen? The methodological approach

2.1. The musical creation laboratory

The musical creation laboratory is a pedagogical and research initiative that collects in-depth data on creativity through participants' musical performances. This approach

facilitates detailed insights, as participants share their ideas and beliefs on various topics related to musical creativity during the practices, allowing researchers to gather more comprehensive data than would otherwise be possible. According to Victor Turner, creative environments often emerge in flexible, playful settings, free from rigid routines.¹⁴ This aligns with the design of the musical creation laboratory, which promotes free expression and experimentation by departing from traditional music education practices. The laboratory emerged from research centered on creativity in music¹, founded on freedom as the driving force of creative development. Like Turner's idea of "interstitial spaces," the laboratory aims to create a relaxed and interactive environment where people can freely explore different musical aspects of themselves, as well as their emotions, thoughts, behaviors, values, beliefs, and experiences. The laboratory also encourages intuitive learning, allowing participants to expand their creativity in a flexible, open space. Activities follow a workshop-style approach, using modern pedagogical practices and musical languages explored by contemporary composers. Rather than a strict method, this approach is seen as a flexible process, acknowledging that it is impossible to control every aspect of creative work.¹⁵

In this sense, the activities in the laboratory focus on music education, distinguishing themselves from non-reflective teaching that merely transmits content related to tradition and culture. Music education in the laboratory promotes reflection as an integral part of the learning process, where the learner is not a passive recipient of information but a co-creator, building knowledge through engagement. Music is valued not only for its professional aspects or its role in socialization but, above all, for its function as a facilitator of expression, communication, and human sensitivity.¹⁶ Music education goes beyond preparing individuals for music; it prepares them for life through music, encouraging constant reflection throughout the teaching-learning process.

Musical creation workshops are deemed experimental, as they do not follow the traditional practices used in music schools. By encouraging creative freedom, the workshops allow participants to experiment with different forms of expression, tools, and techniques, without the pressure of adhering to established norms or models. Participants are not required to read musical scores, as is typical in traditional methods, especially in classical music, nor are they bound by theoretical models or limited content, as seen in approaches based on prior knowledge of popular music

¹ Research titled "Freedom as a Trigger for Musical Creativity" – developed at the Federal University of Rio Grande (FURG), Brazil, by the Pro-Rectorate of Extension and Culture.

(read the interview with José Nunes Fernandes at the Hotel Ambassador, Rio de Janeiro, Brazil, 1992).¹⁷ These premises indicate that the pedagogical and experimental approach of the musical creation laboratory, aligned with the creative spaces described by Turner, demonstrates that freedom and openness to experimentation are fundamental to fostering creativity and developing reflective individuals, connected to both themselves and the world around them. The laboratory focuses on promoting open and collaborative creative processes, encouraging personal exploration and musical innovation through specific activities coordinated and facilitated by the researcher in the field of music. In each session, participants sit in a circle to promote equality and the direct exchange of ideas without hierarchies. This arrangement allows everyone to see and hear one another equally, fostering open and collaborative dialog. Within this context, specific activities were designed to stimulate creativity and individual expression among the participants. These activities include:

- (a) *Improvisation on pre-established harmony.* This marks the participants' first encounter with the researchers. The activity allows for the assessment of their musical knowledge by observing how they develop creations using pre-established material – a shared musical element. Participants are encouraged to improvise both individually and in pairs
- (b) *Creative stimulation.* Creative stimulation is explored through musical duets between the researcher and each participant. Both researcher and participant improvise together, resulting in a spontaneous and collective work, where the researcher seeks to integrate into the participant's musical discourse, engaging in a musical dialog. A unique feature of this activity is that it is performed in complete darkness
- (c) *Inventive genesis.* This activity focuses on rediscovering sounds and tapping into the participants' "inner child." They are encouraged to explore collective vocal improvisation, percussion instruments, body percussion, and household items, allowing for rhythmic and timbral exploration that transcends conventional musical instruments
- (d) *Free expression.* An improvisational activity in which participants respond sonically to each other's suggestions, similar to a sonic conversation. The goal is to develop dynamic interactions until they reach a consensus on the piece's conclusion
- (e) *Sound situations.* In this activity, participants explore various soundscapes by improvising soundtracks for genres such as drama or suspense, without seeing the corresponding videos. Their performances are recorded, manipulated by the researcher, and integrated into the original soundtracks, leading

to a surprising experience when they hear their improvisations as background music for the videos. The goal is to create a specific sound ambiance, using learned resources to generate an atmosphere based on meanings internalized by the group.¹⁸

Data collection was conducted through semi-structured interviews, and the interpretation follows the principles of qualitative research. The participants were singers and musicians playing instruments such as the saxophone, guitar, drums, piano, bass, and percussion. The volunteers were informed about the objectives of the research and signed a consent form that had been previously approved by the Ethics Committee of the University of Rio Grande (No. 70890823.5.0000.5324). All activities were documented through video and audio recordings. Personal names were omitted to preserve the anonymity of the participants.

2.2. Exploring creativity in music: An ethnographic approach

Ethnography, a practice of detailed observation and description of cultures, stands out for offering deep insight into cultural and social dynamics. Geertz¹⁹ describes ethnography as a "dense description," where ethnographers who immerse themselves in the complexity of cultural meanings, aiming to interpret and translate often intricate practices and behaviors. Moreover, ethnography is more than just data collection; it represents theory in action, where theory and empirical evidence are inextricably intertwined.²⁰ This concept is extended into the field of music by Anthony Seeger, who argues that musical ethnography goes beyond superficial documentation to investigate how music is conceived, created, and experienced within a specific cultural context. Musical ethnography involves detailed writing about the various ways of making music, based on transcriptions and detailed descriptions, and often draws on personal experience or fieldwork.⁶

The musical creation laboratory, held at the Federal University of Rio Grande (FURG) in the State of Rio Grande do Sul, Brazil, from October to December 2023, in the musical practice rooms of the Musical Extension Nucleus (NEMUS), offered an ideal setting for applying this ethnographic approach. With 10 participants from various instrumental backgrounds, the laboratory aimed to explore musical creativity through a series of group activities. This creative environment was structured to foster artistic expression and experimentation, aligning with Geertz's view of art as a complex and multifaceted cultural manifestation.¹⁹ The ethnographic approach in the laboratory enabled the observation of how emotions and social interactions influence creative perception and

practice. Participants underwent a process of self-discovery and reflection, which was central to their experiences. Ethnography revealed how the collaborative environment and group dynamics unlocked new levels of expression and confidence, highlighting the importance of emotions in the development of musical creativity.

3. Results and discussion

3.1. Expectations and transformations: The influence of emotions on personal and musical experiences in the musical creation laboratory

Le déclenchement des émotions est nécessairement une donnée Culturelle tramée au coeur du lien social et nourrit par toute l'histoire du sujet. Elle signale aux yeux des autres une manière personnelle de voir le monde et d'être affecté par lui.² 7(p.96)

The musical creation laboratory offered participants a rich experience in personal and artistic development, highlighting significant transformations in their musical perceptions and practices. In this context, the central role of emotions is emphasized, following David Le Breton's perspective on the anthropology of emotions. Interpretations of the participants' experiences will be grounded in this perspective, exploring how emotions shape their musical perceptions and practices. Le Breton argues that while sensory perceptions and emotions may seem like reflections of an individual's deepest intimacy, they are, in fact, strongly influenced by social and cultural factors. Furthermore, he notes that feelings and emotions are not universal states but vary according to the social and cultural context of each group or individual.⁷

Before the first activity, the researchers were introduced, and group members briefly shared their musical backgrounds. When initially asked about their perceptions of creativity, those who identified as creative explained their views in terms of their ability to express themselves artistically in various forms, reflecting Howard Gardner's perspective on creativity as a skill that manifests in diverse ways and contexts.⁴ On the other hand, some participants who did not perceive themselves as creative attributed this to factors such as personal blocks, insecurities, and limitations imposed by sheet music. These testimonies highlighted the complexity of creativity, showing that it is not only an innate trait but also a trait shaped by life experiences and specific contexts.

The participants' experiences in the musical creation laboratory reveal significant personal and artistic

transformations, which can be grouped into three key themes: overcoming emotional blocks, redefining musical identity, and the role of group dynamics in creative development. These themes, grounded in both participant narratives and theoretical perspectives, offer a nuanced understanding of how emotions and social interactions shape the creative process.

3.1.1. Overcoming emotional blocks

Participants entered the laboratory with various emotional challenges, such as fear, insecurity, or creative inhibitions, which initially acted as barriers to their engagement in the activities. However, the laboratory's supportive and emotionally safe environment allowed them to transcend these blocks and explore their artistic potential.

For instance, Singer 1 entered the laboratory expecting a highly technical and intimidating environment. She expressed her fear of performing in front of others, stating, "I could never sing in front of many people because I was always very scared." This fear initially paralyzed her, but the welcoming atmosphere enabled her to release her inhibitions and explore her voice in ways she had not imagined. "I let loose more and sang music I didn't even know I could sing," she recalled, highlighting how the environment facilitated a shift from fear to creative freedom. Similarly, the guitarist arrived at the laboratory feeling creatively blocked, describing how he felt "very stuck musically" due to the limitations imposed by musical theory. The theoretical focus had led him to "freeze up" and overthink, stifling his ability to improvise freely. Over time, however, the laboratory provided him with a space to reconnect with his creative instincts: "Yes, I started to get closer and closer to myself, I started composing again." The laboratory thus helped him overcome this emotional block, closely tied to his perceived need for technical perfection, allowing him to rediscover a more spontaneous and authentic form of musical expression. Saxophonist 1 also reflected on her initial nervousness, particularly when asked to improvise with no prior reference. She described the challenge of keeping up with other musicians in an improvised setting as both daunting and enriching, ultimately leading to greater freedom of expression. As she gradually grew more comfortable, she remarked that the laboratory had unlocked new levels of confidence and risk-taking in her performances.

The pianist entered the laboratory with doubt and insecurity about his improvisational skills, considering himself "a bit limited in solo performance." This emotional block, rooted in self-doubt, could have hindered his ability to fully engage in the creative process. Initially skeptical about the laboratory, he doubted that a focus on improvisation would work for him. This illustrates how emotional barriers,

² The triggering of emotions is inherently a cultural fact, woven into the fabric of the social bond nurtured throughout the subject's history. It signals to others a personal way of seeing and being affected by the world [our translation].

such as self-criticism and lack of confidence, can pose significant challenges for musicians when approaching new and unfamiliar creative settings. However, through his participation in the laboratory, the pianist experienced a transformation. The emotionally supportive environment – one that fostered safety, encouragement, and exploration – allowed him to gradually shed his insecurities.

Le Breton's concept of how emotional environments can transform perceptions and capabilities becomes evident in the pianist's journey.²¹ The laboratory's supportive atmosphere, coupled with the freedom to experiment without judgment, led the pianist to feel "much more comfortable, much more secure, and happy with what I can offer myself." This shift in emotional state highlights the laboratory's role in helping participants overcome internal limitations, particularly when it comes to self-image and creative potential. One particularly impactful moment for the pianist was playing in the dark, which acted as a powerful creative stimulus. This unique dynamic led him to "travel through the universe," allowing him to disconnect from external distractions and immerse himself deeply in the music. This disconnection from the visual world heightened his connection with his emotions and instrument, creating a space for uninhibited creative flow. This experience was so memorable and transformative that the pianist often mentions it when describing the laboratory to others. The deep emotional and creative connection he felt in that moment marked a pivotal point in his journey, allowing him to move beyond self-doubt and experience the joy and freedom of spontaneous creation. By eliminating visual stimuli, the pianist was able to tap into a more visceral level of musical expression. This intense connection with his emotions allowed him to transcend earlier insecurities and embrace his capabilities more fully. The laboratory, through these creative experiments, provided a space for the pianist to discover new facets of his musicianship, leading to enhanced self-assurance and a richer creative experience.

These experiences align with Le Breton's anthropology of emotions, which argues that emotional responses, while seemingly internal and intimate, are shaped by external social factors.⁷ The participants' initial fears and insecurities were mitigated by the laboratory's emotionally supportive environment, enabling them to overcome creative blocks. This theme highlights the importance of emotional safety in fostering creativity, as participants were able to navigate their personal barriers and engage more deeply with their artistic potential.

3.1.2. Redefining musical identity

Another central theme that emerged from participants' experiences was the redefinition of their musical identities.

For many, the laboratory provided an opportunity to reassess their relationship with music and rediscover their creative essence, leading to profound shifts in how they viewed themselves as artists.

The guitarist, for example, initially felt confined by rigid theoretical structures, which had caused him to lose touch with his creative instincts. He expressed a desire to return to a more authentic form of expression, noting that he wanted to "feel like himself again." The laboratory's focus on open-ended exploration and improvisation helped him reconnect with his musical identity, ultimately leading him to resume composing after a prolonged creative block. This process of rediscovery demonstrates how the laboratory provided a space for participants to realign with their artistic shelves, free from the constraints of formal musical theory. Singer 3 had a similarly transformative experience, noting that the laboratory exceeded his expectations and reshaped his view of both life and art. "I see that interpreting life is different for those who deal with art," he reflected, highlighting how his artistic practice influenced his worldview. This participant's journey illustrates the deep connection between creative expression and personal identity, as the laboratory helped him cultivate a more expansive understanding of his role as both a musician and an individual.

The bassist also experienced a significant shift in his musical identity, despite entering the laboratory with no clear expectations. As the sessions progressed, he found himself rethinking his goals and reaffirming his commitment to music. He observed that "these meetings just accelerated the processes that were already coming," suggesting that the laboratory acted as a catalyst for personal growth and artistic reinvention. The emotional environment of the laboratory, which fostered both introspection and exploration, played a key role in this redefinition of identity. This theme speaks to the dynamic nature of musical identity, which evolves in response to both personal experiences and social interactions. Howard Gardner's theory of multiple intelligences is particularly relevant here, as it highlights how creativity manifests in different forms and contexts.⁴ In the laboratory, participants were able to rediscover and redefine their musical identities through the exploration of new possibilities, unbound by traditional expectations.

3.1.3. The role of group dynamics in creative development

Group dynamics emerged as a crucial factor in the participants' creative development, with many reflecting on how collaboration enriched their artistic processes and contributed to personal growth. The laboratory's emphasis

on collective exploration and improvisation fostered a sense of trust and emotional vulnerability, allowing participants to challenge their creative boundaries in a supportive setting.

For instance, the drummer, who typically worked in isolation, entered the laboratory with the goal of socializing and exploring new dimensions of his creativity. He found that interacting with others “awakened things that were dormant in your essence,” highlighting how collaboration can unlock previously untapped creative potential. The drummer also noted a significant increase in his confidence, particularly in his ability to trust both himself and others. “The potential is inside each one... the changes I perceive are in trusting people,” he said, emphasizing how the laboratory’s collaborative environment helped him break down emotional barriers and embrace new forms of expression. Singer 2 also underscored the importance of group dynamics, describing how the laboratory provided a “safe space” to explore creativity alongside others. She recalled moments of intense emotional connection, such as playing a drum during one of the final activities, which evoked deep sensations of connection with the earth, life, and breath. This experience was deeply emotional, leading her to a visceral sense of creative expression that was enhanced by the collective energy of the group. Saxophonist 2, who preferred to “explore more” and plan his music, found that the laboratory challenged his expectations by immersing him in real-time improvisation. Initially, he struggled with the spontaneous nature of the activities, feeling that he had “done everything wrong” on the 1st day. However, the collaborative environment helped him find his way; and by the end of the workshop, he had successfully navigated the challenge of playing non-popular music. The validation he received from the musician-researcher, who recognized his understanding of the laboratory’s proposal, marked a key moment of growth.

The percussionist’s experience also aligns closely with the theme of group dynamics and its role in fostering creative development. His desire to introduce unconventional elements into group situations, while innovative, also highlighted the tension between personal creativity and group cohesion. The laboratory’s emphasis on collaboration and shared improvisation challenged the percussionist’s leadership style, prompting him to reflect on his “almost arbitrary” behavior in a social setting. As the percussionist navigated this tension, he became more attuned to how his actions affected the group, leading to a deeper understanding of the social aspects of creativity. The laboratory, as a space for collective experimentation, acted as a mirror for the percussionist’s behavior, encouraging him to adjust his approach to better align with the needs of the group. This experience highlights how social creativity

is shaped by group dynamics, as individuals must balance their personal artistic impulses with the collective goals of the group. Through his interactions with others, the percussionist gained valuable insight into his social presence and leadership style. In the laboratory, he learned to modulate his creative impulses in a way that enriched both his personal development and his contribution to the group’s artistic process.

These narratives illustrate how the laboratory’s group dynamics played a central role in fostering creative development. Through collaboration, participants were able to push beyond their individual limitations and engage in creative risk-taking, often discovering new dimensions of their artistry in the process. Research on social creativity and group improvisation supports this finding, demonstrating how collective interactions can enhance individual creativity by providing a space for mutual learning, emotional support, and shared exploration.^{22,23}

3.2. Final impressions from participants: Reflections on the musical creation laboratory

L’affectivité paraît de prime abord pour le sens commun un refuge de l’individualité, un jardin secret où naîtrait une spontanéité sans défaut. Mais si elle s’offre sous les couleurs de la sincérité et de la particularité individuelle, elle est pourtant toujours l’émanation d’un milieu humain donné et d’un univers social de valeurs.^{3 7}

Emotions act as forces driving us to act and experience. The laboratory environment creates a safe space for experimentation and creative expansion. Le Breton describes human beings as emotionally immersed in the world, living an existence characterized by a continuous flow of feelings – sometimes intense, sometimes diffuse – that vary and contradict each other over time, depending on circumstances. This emotional state often manifests through visceral and muscular changes, a shift in world perception, and significant resonance in interpersonal relationships. The experience of the world is thus an emotion that each situation renews with its own colors. Even thinking is influenced by this emotional filter. Humans do not exist in the world as passive objects occasionally affected by feelings, but as beings constantly engaged in their actions, relationships, objects, and environment, continuously shaped by surrounding events.⁷

³ Affectivity initially appears in common sense as a refuge for individuality, a secret garden where flawless spontaneity would emerge. However, while it presents itself under the guise of sincerity and individual particularity, it is always an emanation of a given human environment and a social universe of values.

The testimonies presented in this article underscore how emotions, as Le Breton suggests, act as forces driving engagement with the world, particularly in creative environments such as the laboratory.⁷ One poignant example comes from Singer 1, who described her experience as a challenge to her preconceived notions of music, particularly through practices such as “exploring the body as an instrument.” This reflection highlights the emotional and physical immersion in the laboratory’s creative process, suggesting that her musical evolution was deeply tied to a broader emotional exploration. At the laboratory’s conclusion, Singer 1 expressed deep sadness, a sign of the emotional intensity of the process. This sadness, however, goes beyond mere reaction – it reflects how profoundly the laboratory impacted her identity as a musician, demonstrating that creativity and emotional growth are intertwined. The drummer’s reflection also provides a key perspective. Rather than focusing solely on technical development, he emphasized how the laboratory went beyond technique to explore the “conceptual and liberating dimensions of music.” His statement that the true impact of the laboratory would only be understood over time reinforces the idea that deep emotional and creative experiences often require temporal distance to be fully processed. This testimony underlines that emotional engagement fostered by the laboratory was central to personal transformation. Saxophonist 1 reflected on the friendships formed and her desire to explore new instruments, stating that the laboratory allowed her to “explore without fear of making mistakes.” This testimony exemplifies how emotional safety fosters creative risk-taking and exploration – an insight critical for educators aiming to support creative development. Another example is the guitarist, who expressed emotional ambivalence at the end of the workshop, feeling both sadness and happiness. He celebrated the musical exchanges and relationships built but also lamented the conclusion of the process. This ambivalence underscores the complexity of emotions that arise when a space of creation and deep connection comes to an end.

The reflections shared by the laboratory participants provide valuable insights into the transformative power of the creative process, highlighting not only the intensity of the experience at the end but also how deeply it was connected to personal and artistic development. In the laboratory, emotions served as a critical medium through which participants experienced, processed, and ultimately transformed their relationship with music and themselves. The feelings of sadness, ambivalence, and satisfaction reflect a dynamic process of engagement that facilitated deeper creative exploration. This engagement formed the foundation for an evolving creative journey, where

participants could explore not only musical techniques but also their personal identities. The repeated mentions of sadness, desire for continuation, and ambivalence highlight how the laboratory became more than just a technical workshop – it became a space of discovery and creative expansion, where participants’ growth was intrinsically linked to their involvement.

4. Conclusion

These narratives, considered through the lens of Le Breton’s theories, show how emotions are crucial for understanding participants’ musical and personal trajectories. They shaped individual experiences in the laboratory and continue to influence how participants interpret the conclusion of this transformative experience. Le Breton clarifies that emotions result from an interpretation, more or less conscious, of an event of individuals influenced by their own sensitivity. These emotions are thoughts in action, supported by a system of meanings and cultural values. Affective culture offers models of experience and behavior that individuals adapt according to their personal history, style, and especially their assessment of the situation.⁷

The study challenges traditional views of creativity as primarily a cognitive or technical process by emphasizing the centrality of affect in creative development. In the musical creation laboratory, feelings were not merely by-products of the process; they were integral to shaping the participants’ artistic and personal trajectories. This challenges models of creativity that underplay the role of emotions and demonstrates that creativity is a holistic process, driven by exploration, risk-taking, and self-expression. By recognizing emotions as “thoughts in action,” supported by a system of cultural meanings, this study advances current theories by illustrating that creative freedom is deeply intertwined with personal engagement. Participants’ experiences were not only musical but also redefinitions of their place in the artistic and social world. Furthermore, this study highlights the importance of affective culture in the development of creative processes. Participants did not engage with music in isolation; they brought their individual histories, musical traditions, and sensitivities into the laboratory, where collective exchanges became rich sites of knowledge transfer. These interactions helped participants redefine their own creative identities, challenging models that separate individual and collective creativity, and showing that both emotional and cultural factors play a crucial role.

The findings of this study suggest several practical implications for music educators and creators seeking to foster creativity in educational settings. One key takeaway is the importance of creating emotionally safe environments

where participants feel supported in their emotional and creative exploration. The laboratory's environment, which allowed participants to explore freely without fear of judgment, was essential for enabling deep engagement and fostering creative breakthroughs. Music educators can adopt similar approaches by cultivating spaces that prioritize emotional openness and encourage students to connect with their feelings as part of the creative process. The study also underscores the significance of collective musical exchanges in enhancing creativity. By facilitating environments where students can share their musical cultures, experiences, and emotions, educators can create rich opportunities to foster collaborative learning. This collective aspect not only enhances musical creativity but also deepens understanding of the cultural dimensions of music-making. Educators should, therefore, consider incorporating more collaborative and creative exercises into their curricula, as these promote not just technical proficiency but holistic personal growth. The principles that make the musical creation laboratory successful can be applied to other creative settings, both within and beyond music education. The focus on freedom, collective engagement, and the integration of personal and cultural narratives can inform creative workshops across disciplines. For example, the laboratory's model could be adapted for visual arts, dance, theater, or interdisciplinary creative spaces, where cultural diversity is embraced as a rich source of creative inspiration.

The study offers valuable insights for future ethnographic research on creativity. The narratives collected from participants reveal the richness of qualitative, participant-centered approaches in understanding creativity as a dynamic, culturally embedded process. Ethnographic methods, with their emphasis on lived experiences and subjective interpretations, are well-suited to exploring the complex interplay between personal feelings, culture, and creativity. Future research could build on this study by investigating how different cultural contexts shape experiences in creative environments and by exploring the long-term impact of creative workshops such as the laboratory on participants' personal and artistic development. In addition, the study highlights the need for ethnographic research to focus on the emotional aspects of creativity, which are often overlooked in favor of cognitive or technical analyses. By centering participants' reflections and personal narratives, researchers can gain deeper insights into how creativity unfolds in real-world contexts, offering a more nuanced understanding of the creative process.

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The authors declare they have no competing interests.

Author contributions

Conceptualization: Luciene Mourige Barbosa

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Ethics approval and consent to participate

The consent form used in this work has been previously approved by the Ethics Committee of the University of Rio Grande (No. 70890823.5.0000.5324). All volunteer musicians mentioned in this article had signed the consent forms before participating in this study.

Consent for publication

Participants had given their written permission to publish their data (e.g., transcripts from recordings).

Availability of data

Data are available from the corresponding author upon reasonable request.

Further disclosure

Luciene Mourige Barbosa is an independent researcher and Luciano da Costa Nazario is a professional researcher.

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ARTICLE

Constructing the image of ancient cities and the art of place-making through cultural, archeological, and architectural interpretations

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Abstract

The image of the city is an important notion in urban studies that has been discussed by different scholars and from different tangible and intangible perspectives. In the case of ancient cities that come to us in ruined and fragmented conditions, the image of the city can be a useful vehicle for understanding these sites and their values. Understanding and reconstructing the image of ancient cities helps in illustrating the past civilizations' art of crafting their urban agglomerations and how their social and cultural values inform this art practice. Therefore, this article develops theoretical discussion around the image of ancient cities, through which valuable architectural, urban, social, and cultural dimensions are extrapolated and consequently, the socio-urban structure and image of these cities can be interpreted and articulated. Taking the city of Ugarit, an archeological site of a Bronze Age capital city in Syria, as a case study, the article employs an in-depth exploration of archeological reports and discovered text, alongside onsite architectural and urban analysis and observations, to construct the unique urban and architectural image of the city and the underpinning political, socioeconomic and cultural dimensions that shaped it over time. The work contributes to unveiling the Ugaritic people's art and architecture practices that informed their final place-making and the image of their city. The article concludes with the construction of the overall internal and external images of the city of Ugarit and consequently informs the future urban conservation and tourism strategies of the whole site, and accordingly individual areas and structures.

Keywords: The image of the city; Ugarit; Bronze Age; Architecture and rituals; Meaning of architecture; Urban forms; City and identity; Ancient art of place-making

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1. Introduction: Urbanism of ancient cities

Grasping the urban structure and landscape of any city is not an easy task. Many scholars¹⁻⁵ have attempted clear and sensible approaches that explain the concept of the city and clarify its dimensions. This debate becomes more problematic in studying the urbanism of ancient cities whose ruined conditions nowadays challenge the presentation of the valuable aspects of the urban and landscape structure of these cities. The inhabitants and their stories are, of course, missing, which affects the city's collective memory and its interpretation, a quite significant element that informs the overall urban discussion. This gap can be addressed by information-driven from material culture and written resources,

if any. Moreover, the urban topography, morphology, and spatial relationships frame the discussion and the urban interpretations. Indirectly, they convey further important information about the city and the main principles of its ancient inhabitants.

Studying ancient cities is of high significance in modern times. In addition to transmitting the innovations in ancient people's political and social systems to modern and future generations, it reveals important information about the developments which modern cities and communities have undergone. Many scholars, such as Max Weber, Paul Wheatley, and Richard Gabriel Fox, agree with Gordon Childe that the concept of the city originated in urban evolution and continuous transformations in the socioeconomic structure. In his *Urban Revolution Theory*, Childe insists on the importance of urban revolutionary aspects in the economic and social relationships between ancient people.⁶ That, he believes, led to a more complex socioeconomic structure and, in turn, promoted both their urban environment and its organized structure, the city. He adds that the complexity of urban structure reflects the degree of evolution that characterized ancient people's lives.⁶ Fox also attributes the appearance of the city to political and economic developments. He asserts that the concept of the city started when ancient people organized themselves within a state.⁷ Thus, Childe creates a direct link between the city structure and the level of the political or administrative system. Consequently, many ancient cities came to light as the end result of a long-time transformation process, and their variation in form is ultimately regarded to be the result of the complexity of their society. To facilitate defining the city, some scholars^{6,8} have identified specific elements that grant city status to the ancient urban agglomeration: social classification, writing system, public and monumental structure, large and dense population, and advanced crafting and industry, actually similar to the definition of the concept of civilization and state.^{6,9} Furthermore, Colin Renfrew and Spiro Kostof suggested additional features that characterize a city, such as the presence of diverse types of public building, social hierarchy, monumental and sacred centrality, cityscape (morphology), and organizational and urban features (streets, squares, plazas, and city walls) which promote an urban agglomeration to a higher level, the city.^{10,11} Renfrew, in particular, emphasized that the large size of any urban agglomeration does not necessarily form a city. He proposes Çatalhöyük in Turkey as an example: although the site is big and has an administrative center, the absence of the monumental center is obvious and, thus, Çatalhöyük is merely an overgrown village.¹²

A city is created and structured by its people who intend to express political, economic, and social views in spatial

resolutions. Therefore, it is very important to understand how the city is structured. Most ancient cities comprised heterogeneous social groups varying from high political authority down to non-elite residents. The compositions of these cities were mostly characterized by bottom-up and top-down structures.¹³⁻¹⁵ The bottom-up approach is the most recognized by scholars, such as Monica Smith, who believes that the city is socially constructed based on households, neighborhoods, and urban interactions. She emphasizes that the interactions between urban elements guarantee the long survival of the city.¹⁶ In cities, Smith argues, people are subject to different types of evolution as a result of exchanging information among different social groups. Furthermore, it is always possible, at the city scale, to create a new social, architectural, and urban identity based on the evolutionary level that people achieve.

Therefore, supported by the above-mentioned theoretical notions and the understanding of the image of the ancient cities, this paper aims to discuss the urban and landscape aspects of the city of Ugarit,^{17,18} an archeological site that was the capital city of a Bronze Age Canaanite civilization in the Northwest region of contemporary Syria (Figures 1 and 2). The paper intends to present these landscape and urban aspects within a coherent framework in an attempt to analyze and showcase how cultural, social, political, and economic aspects have shaped the city's urban structure and its urban and landscape development and synthesis.

The article uses a mixed qualitative methodological approach to develop its objectives. First, the research uses a literature analysis method¹⁹ to build a proper theoretical framework through which the ancient city will be read and its urban and landscape aspects will be interpreted. This framework aims to provide a comprehensive understanding of the origin, structure, and evolution of ancient cities. Furthermore, it will shed light on meanings as perceived by the cities' inhabitants as well as through modern approaches. The concept of the "Image of the City," a significant one for the study of urban environments, will be used too. The work progresses in the city of Ugarit using architectural research methods²⁰ to develop an in-depth analysis of the architectural and urban dimensions of the excavated part of the site. Using the document analysis research method,²¹ archeological reports and discovered writings in the city of Ugarit will be analyzed to highlight how the political and cultural system, as well as social, religious, cultural, and economic dimensions of Ugaritic people, had shaped the city structure and its urban composition and complexity. Considering that the site is still partly excavated (Figure 2) and the excavated urban areas of the city are still fragmented, the article contributes to establishing interpretations of Ugarit's urban tangible



Figure 1. Google Map illustrates the location of Ugarit, sourced from Google Map with author analysis on it using Photoshop software

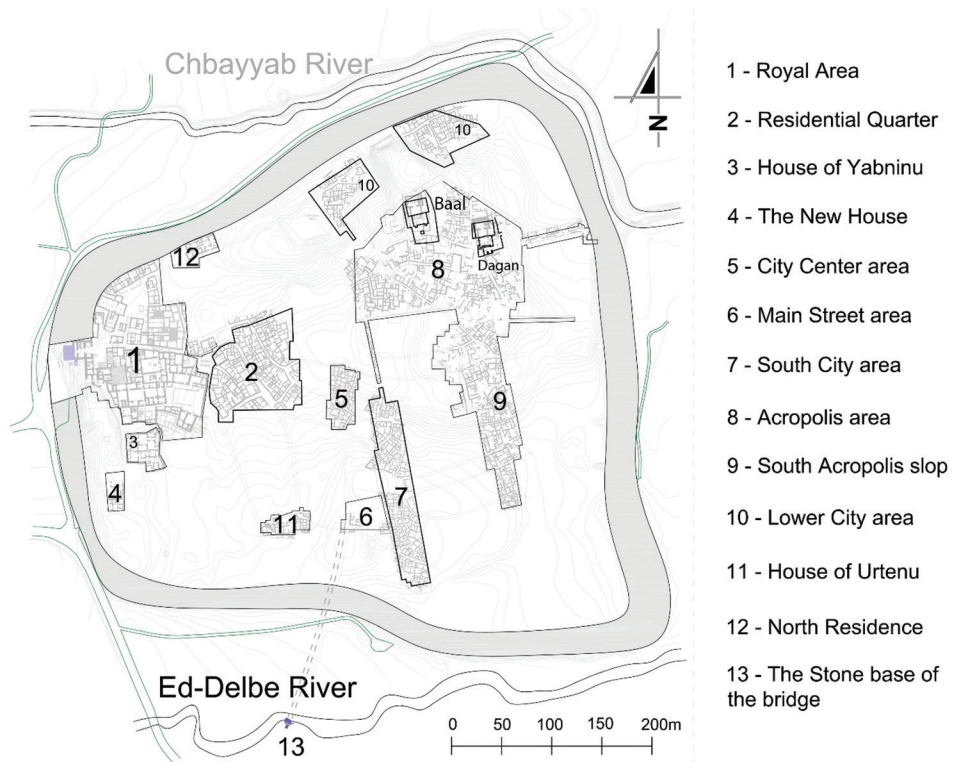


Figure 2. The plan of the city of Ugarit shows the location of the main temples and the local sanctuaries in the city, produced by the author using AutoCAD software and based on the author's fieldwork in 2013

and intangible heritage at different scales and to connecting the urban fragmentations of the city using a sensible

and consistent overall narrative which is considered a substantial contribution that this work makes.

2. The meaning and image of ancient cities

An ancient city conveys dual meanings to its ancient inhabitants and modern society. Some ancient people saw their cities as a sacred urban environment where their sacred king erected his own house, the palace. Thus, the city was a real representation of their social composition and beliefs. On the other hand, modern society and scholars see different meanings embedded in these cities; for example, Amos Rapoport summarizes three main levels at which the meanings of the city are categorized. These are the high-level (symbolic), the middle-level (identity), and the low-level (urban-social interaction) meanings.^{22,23}

The high-level meaning considers encoded significance in the buildings and city layout. It expresses the potential image of the city based on its structure and the relationship between its urban elements. Kevin Lynch supports this statement through his Theory of Magical Correspondence: some fundamental social values can be constructed using urban principles. Consequently, these values are presented in spatial forms, such as order, stability, dominance, and continuity between function and form.^{23,24} These values, Lynch advocates, contribute to the final image of the city.

The middle-level meaning focuses more on ancient people's identity and power, as it is manifested in the architectural and urban features of the city. However, it is very important to avoid the persistent connection or equation between monumentality and power. Joyce Marcus contends that some outstanding valuable monuments could have been built without the existence of a strong political power.²⁵ She uses Stonehenge as an example to support this opinion. Influences (meanings) of monumentality should be transmitted to the modern-time visitors of the ancient city; after all, they are part of the collective memory of ancient people.

Finally, the low-level meaning manifests the relationship between the urban environment and its inhabitants. It focuses on people's judgment and reaction to the surrounding architectural and urban settings.²³ Overall, in most cases, the three levels of meaning are not separated from each other.

The symbolic meaning, as Joseph Rykwert emphasizes, is one of the most important characteristics. He proposes that three main elements constitute the concept of the city: site, enclosure, and material. The relationship between these three components expresses the urban dynamic of the city and its associations. Since ancient people perceived their urban environment and landscape as sacred elements, they established strong relationships with their surroundings, whereas the enclosure protected the city's sacred interior urban environment.⁵ Rykwert's thoughts are expressed

by other scholars in another way. In his book "*The Architecture of the City*," Aldo Rossi believes that the city as an urban artifact has associations with its surroundings. These associations must be located in the object's envelope (surface) which corresponds to the enclosure in Rykwert's theory. Therefore, the city wall is a crucial element that secures the city, represents its character and power, and gives a clue about the level of the cultural system.

Like John Lydus, Rykwert believes that the city has three attributions, which are secret, priestly, and public. Rykwert regrets that this notion is lost in current urban design principles and that planners are today mainly focussing on the public dimension. Therefore, both scholars consider it very important that the study of urban aspects of ancient cities considers the social, sacred, and ritual aspects of the city to avoid the abstraction of the city's characteristics into its physical materiality (the city's conceptual poverty, according to Rykwert). These aspects are substantial in building a comprehensive and sensible image of the city. Furthermore, it is essential to recall the ancient people's perception of their city and transmit it to present and future generations.^{5,26} Thus, the urban environment (town or city) can be presented in its totality, where its symbolic meaning is preserved and transmitted and, consequently, the mentality and the urban experience of ancient inhabitants are reconstructed. In this sense, the enclosure is also a sacred element that encompasses the ancient people's rituals and beliefs and unfolds the city's external image.

The site also poses dual dimensions. Rykwert supposes that the choice of site is associated with people's rites and beliefs, so it was never arbitrarily chosen.⁵ Furthermore, the city's morphology and associations with the surroundings are very important variables that would contribute to a proper choice of its location. Thus, abstracting the whole site into one component is a useful principle for understanding its characteristics and relationships. Consequently, for the sake of a clear representation of the city, the site should be studied with its structure and interior urban environment using the same theoretical framework. In another vein, the city is a changeable urban artifact over time; its structure and image are faithful representations of the historical phases through which the city has gone during its lifetime. This principle is strongly manifested in Aldo Rossi's thoughts, particularly in his book "*The Architecture of The City*," where he regards the city as an urban artifact which transforms over time.³

Rykwert emphasizes the importance of investigating the urban rather than the cosmological symbolism in the city's layout.^{5,26} Subsequently, the city's rituality, namely the ancient people's experience of their city, will be intelligibly

exposed. People's rites, consequently, become important for understanding the urban environment. In that vein, Aldo Rossi insists on the importance of the city as a whole and in terms of its individual parts.³ Considering it as an object is a good opportunity to understand the city's relations with its surroundings; this is one of the city's images, the external image. However, the interrelations between the city's parts are very important to be drawn and understood to constitute the interior image of the city (ancient people's perception of their urban environment).

Similarly, in his phenomenological approach to understanding architectural space, Christian Norberg-Schulz identified four levels of existential space: geographical and landscape, urban, the house, and the thing. He emphasized that a comprehensive understanding of the space, whatever its scale, requires exploring it at different levels as well as the connections between these levels taking into account that the house is the central space from which all social, cultural, and epistemological aspects start.²⁷ This approach is useful in forming and understanding the structured totality of an urban agglomeration and/or the city; Norberg-Schulz's approach meets Rossi's thoughts regarding the study of the city on different scales (as one object and as the agglomeration of different parts). Schulz's phenomenological approaches were always backed by his structuralist background; he always worked on reconciling structuralism with phenomenology, and his contribution regarding the existential space or the spirit of place (the concept of *genius loci*) is essential in the understanding of the city structure.^{2,27} Based on reviewing examples from Mircea Eliade and Kevin Lynch's work, Schulz argued that architectural spaces are existential spaces that are structured into schemata and centers, directions, paths, and domains. This approach clearly intersects with Kevin Lynch's structure of the city. Schulz concluded that architectural space can be understood as a concretization of environmental schemata or images.

Consequently, the city image is generated based on specific urban elements. The focal points and districts of the city, as Kevin Lynch states too, are the primary catalysts that stimulate the city's urban life and, simultaneously, reflect people's thoughts of their built environment.¹ The final internal image of the city is interpreted through binding these urban elements and using specific "cultural" and urban routes (paths, as named in Lynch's theory). These routes knit the urban life story of the city based on people's social and cultural aspects. Subsequently, to obtain sensible reading and understanding of the city, these two (external and internal) images should be combined. The psychological dimension of the city is also another aspect which provides essential knowledge of the

people's collective memory and their experience within their urban environment. In ancient cultures, for instance, the king was considered god's representative in his city and, therefore, he gained ritualistic significance among the urban community in addition to political power. Therefore, as Stanley Tambiah suggests, involving political aspects is worth considering in conceptualizing the urban environment and reconstructing its proper image.^{26,28}

According to Lynch, the city's image holds its identity, structure, and meaning. He believes that the image of the city should be expressed as it is perceived by its inhabitants. Thus, the surrounding urban environment and its structure or pattern are the main sources of knowledge about the city and its people's beliefs and intentions. Although Lynch had identified five main elements in the city (paths, edges, nodes, districts, and landmarks),¹ the final image of the city is actually affected by only three memorable elements. The city is essentially built around "focal points" and divided into clear parts "districts" (mostly regarding function or social class). These parts are connected by routes "paths", whose existence is very important in building the collective memory and the urban experience in the city. These three elements and their structures represent the city's materiality which varies depending on the function or social group; this is important to be considered when analyzing ancient cities' archeology, where the disparity in the districts' materiality and designs indicates the differences in the economic, social and cultural aspects between areas from the same historic phase, or highlights the advancement of ancient people's planning and building skills between different periods of the city's history.

In addition, the city's materiality displays the internal dynamics between urban and social hierarchies. Since the main focus of this article is a ruined city whose people disappeared a long time ago, inferring the relationship between the city and its people will go through a detailed analysis of its architectural and urban fabric as well as archeological and written resources. Interpreting the discovered material culture plays an important role in defining the urban elements (landmarks, districts, and memorable routes) and the city's organizational pattern or structure.

Many cities, especially prehistoric ones, were built and developed around specific buildings or complexes. Aldo Rossi perceives these structures as urban dynamics monuments around which the morphological and structural transformation process of the city took place. These strategic points should be distinguished by their structure, pattern, or function. They have a primary role in evaluating the development of the city over time. The stratigraphy of these monuments in most cases reflects the

city's historical periods and stratifications, as they are the only withstanding elements in the urban transformation process. In studying ancient cities, it is crucial to focus on the political and religious systems and structures, such as the royal palace, the temple, *etc.*, that stirred the urban developments and dynamics of the city, but without ignoring the invaluable social and ethnographic information that the ruins of houses and small societal buildings can convey about past people's everyday life.

3. Understanding the image of the city of Ugarit

Olivier Aurenche and Olivier Callot provide a basic architectural definition of the city in their book "*Dictionnaire illustré multilingue de l'architecture du Proche-Orient ancien*." The two scholars adopt specific criteria to differentiate between the city and the village of the ancient world in terms of social, urban, and architectural hierarchies.²⁹ Archeological evidence of these hierarchies, the city walls, and the pattern of the street network must be primarily investigated to analyze the city's structure, associations, and urban concepts.

The city of Ugarit was built on a Tell (hill), whose top point is 20 m above the surrounding plain fields. This location facilitated easy visual communication between the city and its dominating harbors, Minet El Beida and Ras Ibn Hani. The regional relationships between the city and the two bays of the harbors sufficiently express its well-planned location and how the topography of the area was used to choose a proper site for their dominant urban agglomeration (the capital city) to supervise all surrounding lands (Figure 3A).^{30,pp.37-47}

It is well known that the site of the city of Ugarit started during the Neolithic period as a small village,^{31,32} but its strategic location and people's persistent efforts to develop their city contributed to its complex structure and excellent reputation during the Late Bronze Age period. Considering the original height of the buildings in the city, especially in the Acropolis area, the city is a well-recognized urban element within the surrounding landscape. The morphological characteristics and the direct link with the main harbor of Minet El Beida had conferred an important role of the city, and its two key royal and the acropolis areas, as a landmark for people from the seaside and the land (Figures 3B and 4).

It is obvious that the city had a physical and cultural significance, not only for its inhabitants but also for the surrounding sites of the kingdom. The topographic survey, carried out by the French-Syrian mission in 2001, clearly shows the city's overall morphology and its topographic settings (Figure 4).^{30,pp.27-36} Ugarit gained a very good

reputation in the Levant, Mesopotamia, and Asia Minor, and even on an international scale. The discovered writings on the city of Ugarit in Egypt, Ebla, Mari, and Hattusa strongly advocate this fact.^{18,33,34}

This city accommodated all political, economic, and cultural activities of those people and was an important example of multicultural cities during the Late Bronze Age period.¹⁸ Thus, the city of Ugarit represents a smaller-scale prototype of the whole kingdom and, consequently, it is a good example of the so-called city-state. Political (Royal Palace) religious (big temples), and social (public buildings) representations within the city wall confirm the high complexity of the city during its last phase. This, consequently, conveys the very significant role that Ugarit had within the international sphere (Figure 5). The discovered architecture, objects, and texts in the city confirm this fact; the written sources show that the relationships between the kingdom and surrounding powers during the Late Bronze Age were established mainly through the capital city of Ugarit and its dominated harbors.³⁵ Hence, the city of Ugarit is an object which holds intrinsic physical and cultural values as a unique urban agglomeration on a regional and international scale, and therefore reading and analyzing the urban characteristics of the city will help identify its outstanding urban values, structure, and image.

3.1. The city of Ugarit: Urban reading and analysis

The site of the city is flanked by two riverbeds (Nahr Chbayyeb and Nahr ed-Delbeh), which formed its natural border. However, it is believed that the city was also equipped with fortifications, although only the western part has been discovered so far.¹⁸ The building materials and techniques of the discovered fortification, large ashlar stones built in traditional as well as vaulted geometries, explicitly show that the city had been strongly secured using monumental structures in addition to the natural ones, the rivers (Figure 6). Based on Naroll's formula which uses a ratio of persons per total floor area to calculate the population of ancient cities³⁶ and taking into account cross-cultural parallels, the city's population is estimated to be 7,635.³⁷ Considering this high density, it is very important to highlight the daily urban traffic of those people within the city as well as between the city and the surrounding region.

Starting with the city access, the only access discovered so far is the western gate which directly leads to the New Royal Plaza, around which the new royal structures (Royal Palace, Royal Sanctuary, and Pillared building) are located. For political, religious, and practical reasons, it is obvious that this gate did not function as access for

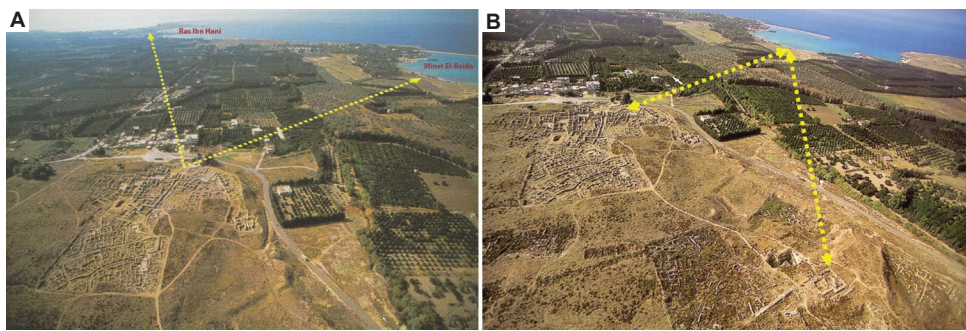


Figure 3. (A and B)The city of Ugarit’s relationships to the surrounding suburbs and the two harbors. The aerial photo was provided by the archeological museum in Latakia during the author’s fieldwork to the site in 2013. Reprint with permission



Figure 4. Ugarit’s topography shows the location of the Acropolis and its morphological settings (top), and the general section of Ugarit shows the city’s topography and the morphological settings of the Acropolis area (bottom). The drawing was prepared by the author using AutoCAD software based on topographic information and the author’s field analysis and observation in 2013

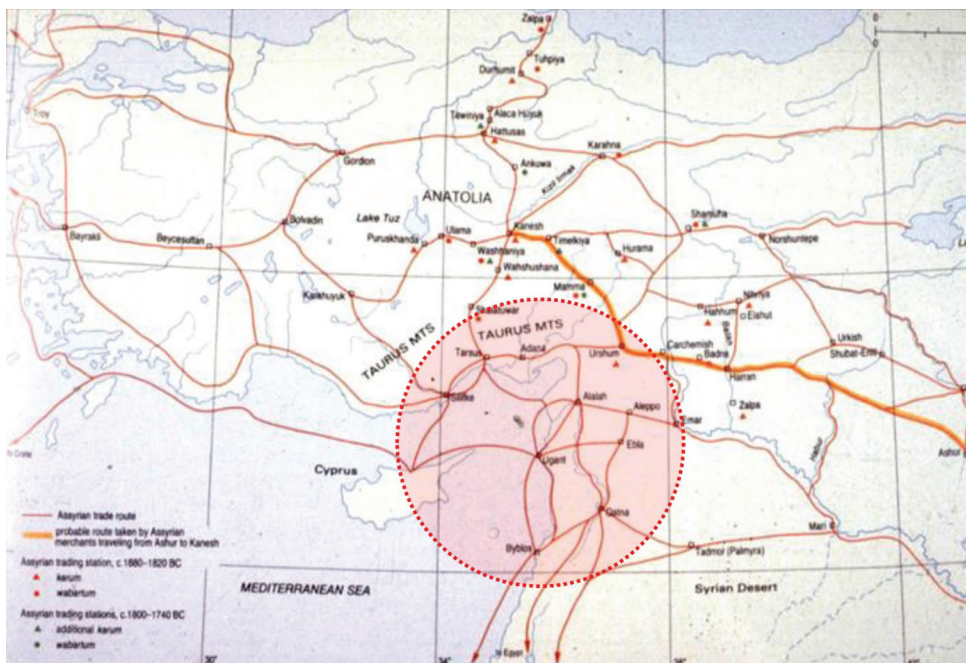


Figure 5. The map shows the location of Ugarit within the Mediterranean trade network. © The National Museum in Latakia provided to the author during fieldwork to the site in 2013. Reprint with permission

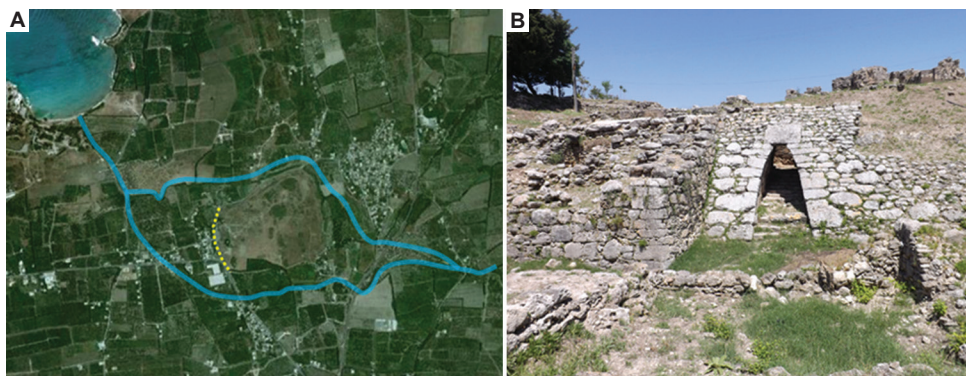


Figure 6. Ugarit’s natural and manmade boundaries. (A) Google Map of the site of the city. Sourced from Google Map with author analysis on it using Photoshop software. (B) The ruins of the 15th-century tower and postern gate. Photo is taken by the author as part of the fieldwork in 2013

public people and carriages.³⁸ Its monumental geometry and termination in front of the Royal Palace lead one to think that this access served special traffic to the city: royal family, officials, and external visitors. This issue, first of all, elaborates on the understanding of the political system and the movement within the political zone of the city. Second, it instigates searching for alternative access for the daily life movement between the city and surrounding fields. Potential access(es) should have been sufficient for the flow of carts that were used to bring crops and merchandise,³⁰ (pp.37–47). The constitution and design of the western gate do not facilitate the continuous movement of carts from and into the city; approaching the western gate was done through a very sloped route (Figure 6B).

Marguerite Yon and Oliver Callot, who have been central in studying the architecture and urbanism of the site, kept investigating the evidence for another potential access to the city.³⁹ Excavation works at the river bank, carried out by Y. Calvet and B. Geyer to the south of the city, brought to light a significant clue about commuting access.^{40,41} A well-built block of ashlar was discovered at the Nahr ed-Delbeh River bank (Figure 7). The architectural and structural properties of this block confirm its capability to hold a bridge connecting the city with the surrounding landscape to the south. Together with Marguerite Yon, they believe this bridge would have been transformed into a dam at specific times of the year to support the water management system of the city.^{30,40-42}



Figure 7. The relationship between the stone base, Main Street, and the Public plaza on the city's map highlights the alternative access to the city. The drawing was prepared by the author using AutoCAD software based on topographic information and the author's field analysis and observation in 2013

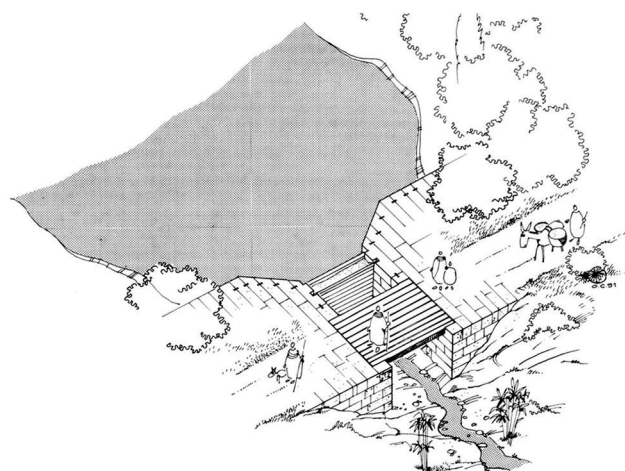


Figure 8. An artistic reconstruction of the bridge by Olivier Callot. Image provided by Olivier Callot during the visit to the Maison de l'Orient et de la Méditerranée in Lyon in 2013. Reprint with permission

Figure 8 shows an artistic reconstruction of this bridge by Olivier Callot.⁴¹

In the city, there are two significant discoveries that support the interpretation of the bridge and access to the city from the southern part. The first discovery was at the Main Street Area (Figure 7), which had been unearthed in 1986.¹⁸ Excavation works resumed in this area in 2008–2010 by the Syrian–French archeological mission to the site,^{43,44} which expanded the unearthed part permitting by doing so a better reading of the area and its relationships with the surroundings.

Further excavation at the “south bridge” stone base enabled scholars to support their interpretation with more evidence. The Main Street Area is a north–south

axis, almost 4-m wide. The noteworthy structures around the street are built in big and regular ashlars. The south extension of this street meets the stone base on the river bank, whereas the extension to the north terminates at the western edge of the big Public Plaza in the South City area (Figure 7). This inevitably confirms that this exceptionally wide street was a main vein that provided direct access from outside the city into a central urban element (the Public Plaza) which, considering the uncovered areas, is mostly located at the heart of the city's domestic fabric. This Public Plaza, in turn, provides a forked street network to every part of the city. Consequently, it can be said that Ugarit had direct access from the southern part using a timber bridge (Figure 8) that crossed the Nahr ed-Delbeh River. It is not clear yet if the city had a proper gate on that side; however, more excavations between the Main Street Area and the stone base can yield significant information which clarifies the characteristics of this access.

Since the city had access from the southern and western sides, it is most likely that it also had another two accesses from the northern and eastern parts, such as most Bronze Age cities in Mesopotamia and Cyprus. In the northern part of the city, and by revising the city map, a straight southeast–northwest street can be recognized, which may have continued to cross the other river, Nahr Chbayyeb, to the north of the city (Figure 9). Unfortunately, the north part of the Tell is in a very bad condition and a significant part of it has been eroded. For that reason, nothing definite can be said about access from this side, and more excavations are needed at the Nahr Chbayyeb River banks to search for the bases of a bridge if there had ever been one. As for the fourth possible access, the whole eastern part of the site is still being unearthed, and future excavation

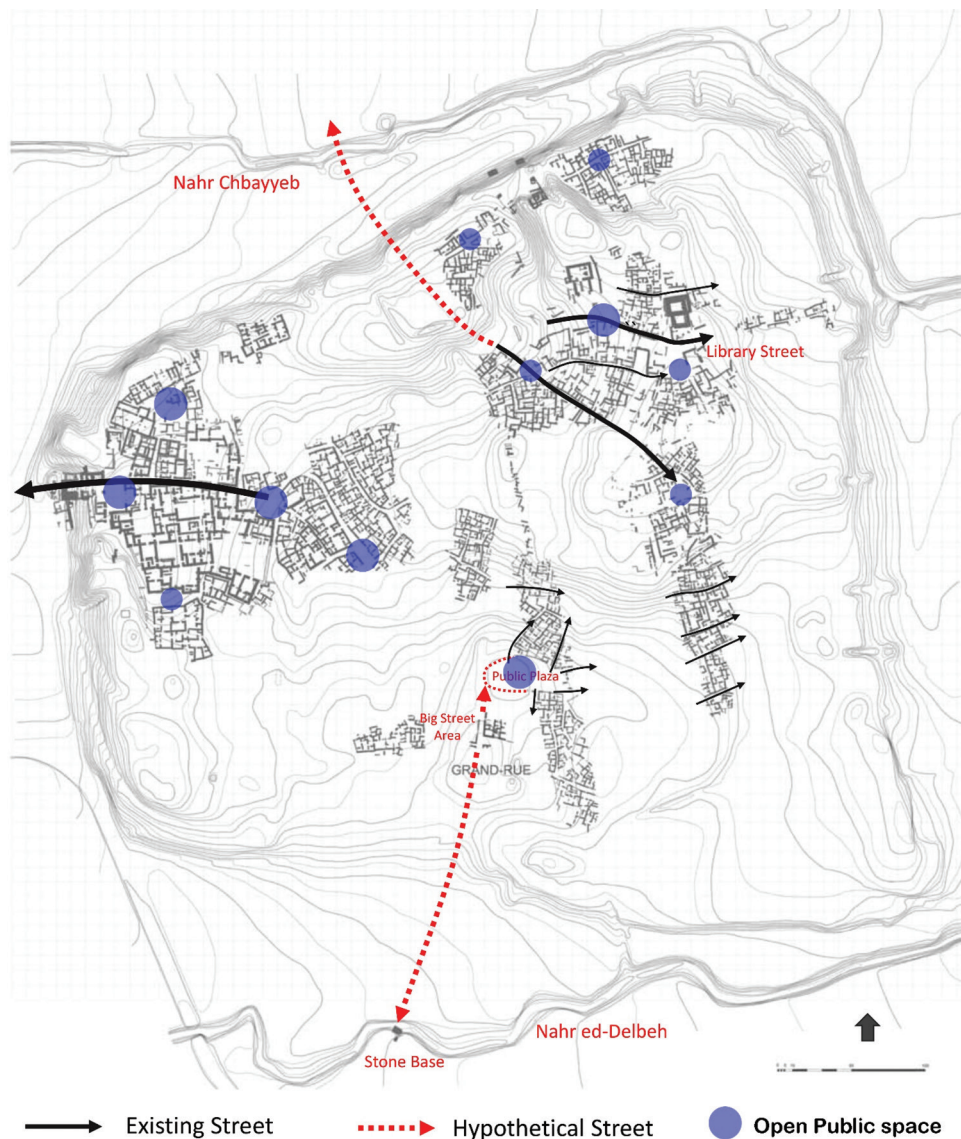


Figure 9. The general map of the city of Ugarit’s plan shows possible accesses to the city and primary and secondary public spaces in the excavated parts of the city. The drawing was prepared by the author using AutoCAD software based on topographic information and the author’s field analysis and observation in 2013

should bring new information about possible access there. The excavated part of the Acropolis and its southern slope shows many streets which head east and correspond to the city’s topography. One of them is Library Street which aligns the two main temples in the city (Figure 9). Nothing can be confirmed about any access from the east; however, the location of the main temples in the northeast part of the city evokes thinking about eastern access, taking into account the significance of these two temples to Ugaritic life during the Bronze Age period.^{45,46}

During a private conversation with O. Callot in October 2013, he pointed out that he is still not sure about the overall

street structure of the city as there is still a huge part of the city that needs to be discovered. However, the discovered part of the city encourages the interpretation that the overall urban structure constitutes ring-streets which are parallel to the site’s topography. These rings are connected by short streets, perpendicular to the site topography, to adapt to the site’s slope. Most of the proposed rings result from logical connections between discovered areas, as is the case in the Residential Quarter, the City Center, the South City, and the South Acropolis Slope areas (Figure 10). Thus, it is essential to understand the urban development forms in Ugarit and how the different areas of the city were physically and socially connected.



Figure 10. Possible connections between the Residential Quarter, City Center, South City, and the South Acropolis Slope areas in the city of Ugarit. The drawing was prepared by the author using AutoCAD software based on topographic information and the author's field analysis and observation in 2013

3.2. The city of Ugarit: Urban development and social interactions

At an Urban scale, some scholars worked on analyzing the city's urban forms and social dimensions. For instance, Panagiotis Kontolaimos investigated the role of the main urban elements (the palace, acropolis, and open spaces) and the circulation pattern within the city. Using axial, visibility, and agent-based analyses, Kontolaimos reached several results concerning the urban characteristics of the city of Ugarit.⁴⁷ The results of the analyses are very useful for the urban principles; however, they are not complete as Kontolaimos could not use other sources, especially the discovered writings in the city that had established absolute facts about the city during the Late Bronze Age period. Although Kontolaimos' analysis suggested that the function of the Acropolis area was restricted and it had a weak relationship with the surrounding built environment, the analysis of the Acropolis temples^{45,46} pointed out that the two temples were built on west–east Library Street that extends to the Residential Quarter and the Royal Palace (Figure 11).

This possible connection indicates a direct relationship between the Acropolis and the Royal Area, through the residential districts. Some ritual texts confirm this

relationship by describing the route that the king used between the palace and the temple in specific events,⁴⁸ (p.219). Moreover, although the two temples were fortified, the ruins of the Acropolis Area show very good connections with the surrounding areas of the city (Lower City, South City, and South Acropolis Slope).

The location of the Royal Palace as another dominant urban element reflects its control of the city's (civilization) international trade through the two harbors (Figure 3A). The development of the palace's construction over two centuries⁴⁹ reflects the gradual development of economic control between the 15th and the beginning of the 12th century BC. The western part of the city facilitated the control of the city's trade; however, it was also facing the source of danger, the sea, on behalf of the city at that time. In contrast to Kontolaimos' interpretation,⁴⁷ the location of the Royal Palace on the western side of the city differentiated Ugarit's urban structure from other contemporary surrounding cities. Building the Royal Palace and administrative facilities out of the city center and far away from the main temples points out the attempt not only to control the city's trade but also to decrease the influence which the temples had on civil life in Ugarit. In addition, it shows that the royal dynasty had a responsibility to protect the city and was exposed to the main source of

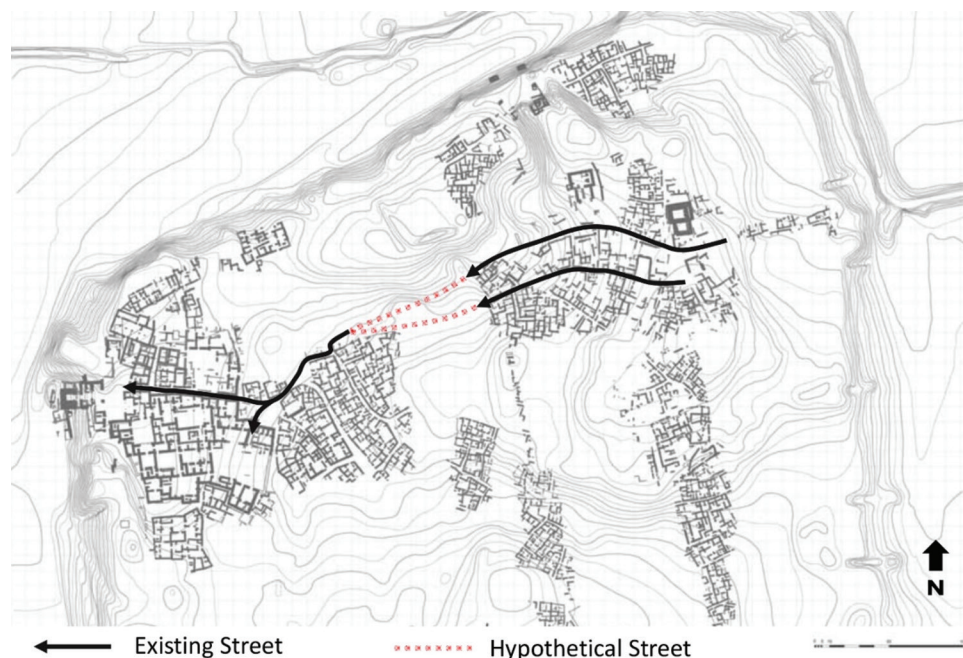


Figure 11. The direct relationship between the main temples and the palace is expressed in the city plan. The drawing was prepared by the author using AutoCAD software based on topographic information and the author's field analysis and observation in 2013

danger at that time, the sea, which is a unique and social urban characteristic in comparison with the surrounding civilizations.

The discovered part of the city of Ugarit shows dominant open spaces (New Royal Plaza at the New Royal Zone, Public Plaza in the South City, Public Plaza between the Royal Area and Residential Quarter, and the open spaces in front of the main temples; Figure 9) in addition to small public spaces. These spaces are a demonstration of the capacity of the urban environment to stimulate high levels of social interaction, as well as to organize the social traffic on the city scale. In comparison with Enkomi in Cyprus, for example, which is perceived as a planned town with a regular street network, Ugarit has better interactive open spaces with a greater significance for the city's social life;⁴⁷ the organic development of the urban environment in Ugarit considered the human scale in giving pedestrians more options to move within the city and encouraging neighborhood life.^{47,50} Furthermore, Kontolaimos' urban simulations⁴⁷ reflects the strong relationship between all domestic and public areas to the east of the royal district. Considering the possible two accesses to the north and south of the city, these simulations can also be considered a faithful reflection of the household economy in Ugarit where different economic resources were physically represented by different accesses to the city.

The archeological-sounding SH at the western slope of the Acropolis⁵¹ confirms the site's long history of

continuous urban development between the Neolithic period 8th millennium and the beginning of the 12th BC. However, the consistent urban development of the city started after the collapse of the Old Kingdom in Egypt and the Akkadian Empire in Mesopotamia.^{18,52,53} Apart from the findings in the sounding SH, the oldest discoveries in the city thus far date back to the 18th century BC (the foundations of the temples as well as some tombs and cultic facilities in the Acropolis and Lower City). On the other hand, the archeological soundings carried out in the Royal Area, clarify that this area was built on the remains of simple houses.⁵⁴ These soundings pointed out that the city was already covering the whole area of the site (Tell) during the Middle Bronze Age and had walls to secure the inhabitants. This confirms that the Acropolis Area was the start point and the heart of the city during the Middle Bronze Age period. It constituted the first dominant urban focal point around which the city developed before the Royal Palace was built.

Thus, the interpretation of Ugarit's urban development between 2000 and 1200 BC can be summarized in three main stages. After the city's destruction by the end of the 3rd millennium BC, people tried to revive their city and started with building the main temples, most probably over older cultic facilities in the Acropolis area. These two temples worked as urban catalysts that accelerated the urban development around them (Figure 12A). During the 17th or 16th century BC, the city had covered

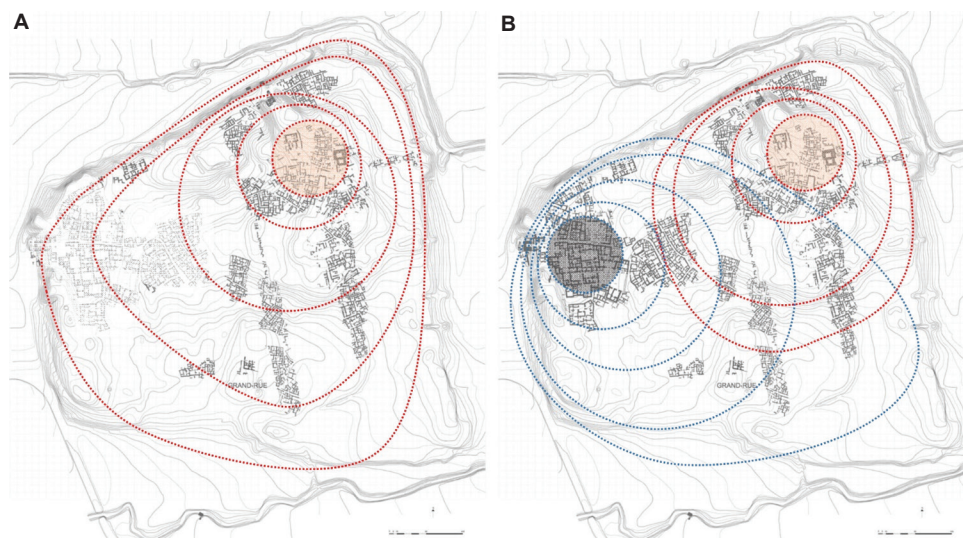


Figure 12. Urban development forms in Ugarit. (A) 19th – 16th century BC; (B) 16th – 13th century BC. The drawings were prepared by the author using AutoCAD software based on topographic information and the author’s field analysis and observation in 2013

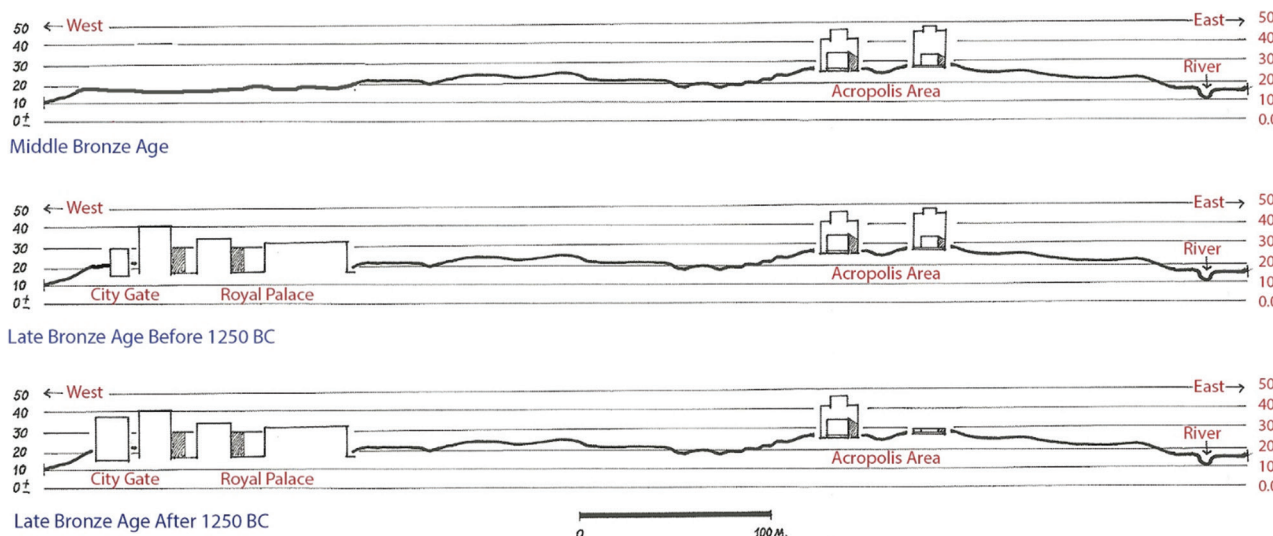


Figure 13. General sections of the city show the development of the city’s morphology between 20th and 13th century BC. The source of the original section is obtained from Oliver Callot⁵⁶ and then edited by the author. Reprint with permission

the whole area of the Tell/site and was equipped with proper fortification. The city kept the same development form until the Ugaritic people commenced building the royal facilities in the western part during the 16th or 15th century BC. The Royal Palace and other administrative and residential buildings constituted another dominant urban focal point that balanced the urban dynamic with much power for the new structure, the palace (Figure 12B). This reflects the changes that occurred to the city economy at that time, which became a palace–temple economy after it had been under the temple’s control for a long time.

The result of this development was strongly expressed in the physical fabric of the city; this can be recognized in the changes in the morphology of the Royal Area and Acropolis over time (Figure 13) and subsequently the overall urban structure of the city; it is clear that the royal power was significantly growing at the expense of the Acropolis. The newly developed area, the Residential Quarter, directly situated to the east of the Royal Palace, shows further evidence of this development. The architectural materiality, technology, and organization of the buildings in this area manifest great development. The houses were planned using larger and more orthogonal and clear spaces, and

built using large ashlar stones on the corners and rubble walls in between. The stone construction is supported with timber frames to make the walls and create the ceilings and roofs.⁵⁵ The planning and construction technologies, which have a striking similarity to the architecture of Ancient Thera in Santorini, Greece, highlight the influence of the Royal Area, as a new urban artifact, on the city's development. This development gradually decreased toward the east, reaching the Acropolis area and Lower City, where people kept their original houses but adopted the new architectural approaches and techniques as much as they could afford. Thus, the existence of the Royal Palace was quite significant not only for the development of the city's political, administrative, and economic systems but also for the development of its urban structure and architectural quality.

The earthquake, which hit the city during the 13th century BC (most probably in 1250 BC),^{38,57} was another key event in Ugarit's history that contributed to its final urban structure and architectural quality. Ugaritic people used this catastrophic disaster to highlight their political, economic, and cultural advances and express their new social and cultural attitudes in spatial resolution; this was manifested on different scales (single spaces to the entire image of the city). Through reading relevant urban evidence within the excavated parts of the city, three forms of urban development can be recognized:

1. Transformation in the buildings' geometry (Royal Palace and the City Gate);⁴⁹
2. Abandonment of specific buildings and the use of their land and ruins for new structures with new functions (North Palace in the Old Royal Zone)⁴⁹
3. Completion of surviving buildings using new principles to facilitate the function and produce new structures (key houses in the city);⁵⁵

The changes in the design of the city's main gate and the completion of the New Royal Zone after the earthquake immensely affected the overall external and urban image of the city showing off advancements in political and economic systems.⁴⁹ This resulted in a well-organized New Royal Zone around a large Royal Plaza, which facilitated the connection between different buildings and with the city through Palace Street (Figure 14). In addition, the new gate was built in a gigantic and heavy structure, which reflected the new power of the occupants of this area, the royal family.

A similar development is recognized in the Acropolis area where the temple of Dagan was transformed from a gigantic temple to an open-air platform temple after the earthquake.⁴⁶ The overall morphology of the city had consequently changed and the volume of the Acropolis



Figure 14. The Royal Zone shows the development of this part of Ugarit. The drawing was prepared by the author using AutoCAD software based on topographic information and the author's field analysis and observation in 2013

was reduced to be represented by only one of the two superstructures (temples): The Temple of Baal (Figure 13). These two developments reflect some changes that occurred to the cultural system of the city; the religious power had gradually turned into royal or civil forms. However, the temple was still having power in the city at that time owing to the wide reputation of the god Baal; rebuilding the temple of Baal after the earthquake is a testimony to that. This justifies the type of economy (palace-temple economy) which the city of Ugarit had during its last phase.

The Old Royal Zone also accommodates a new form of urban development in the city. The North Palace was not only abandoned after the earthquake of 1250 but also its land and ruins were used for the construction of other new buildings, linked to the new cultural attitudes of Ugaritic people: the New Sanctuary.^{45,49} This transformation confirms that the building, as a Hittite property perhaps, is associated with a bad memory to the city's inhabitants and the royal family; thus, they did not rebuild it; they rather overlapped its ruins with new structures (Figure 14), which reflects the new political status of Ugaritic people after the city became free of the Hittites' control during its last phase.

Ugaritic structures witnessed another form of development linked to the city's architectural and urban principles; for example, House B of block X in South City⁵⁵ presents two types of transformation carried out on Ugarit's structures after the earthquake. The first

development involves a mixed reconstruction of the demolished structures, incorporating the original intact parts with new additions that follow the new architectural concepts, materiality, and techniques. The southern part of the house was reconstructed after adding a colonnade courtyard around which the building's functions (several workshops) were organized (Figure 15A).

The other development is about an extension to the structure to facilitate another function with a strong relationship to the original part of the building and the surrounding urban landscape. The northern part of House B of block X is an autonomous unit that was added to the structure and functioned as an educational (writing) space on the ground floor and a residential unit with a library on the first and most probably the second floor. Adding this unit facilitated better privacy for the owner's family without any negative interaction with the multifunctional professional apartment to the south. However, a very good connection that respected this privacy was maintained between the northern and southern parts of the house (Figure 15A). The extension of this house looked over the Public Plaza (Figure 15B), and archeological reports point out that this part (as well as the neighboring house)⁵⁵ was built using thick walls and in multiple 2 – 3 levels; this highlighted the Ugaritic people's approach to their public spaces and how they reconfigured their structures to acknowledge the relationship to these open spaces within the city.

The development approaches can be noticed across all excavated parts of Ugarit, although structures and urban organizations vary between areas, reflecting the inhabitants'

social connections as well as cultural and socioeconomic characteristics. Therefore, it is important to understand the inhabitant distribution in the city and how that affected the city's urban dynamic, which resulted in differences in the architectural and urban forms and qualities between the discovered areas.

3.3. The urban functions and connections in the city of Ugarit

In many cities from Ugarit's time, such as Hattusa, Ebla, and Mari, the urban form strongly reflects the hierarchy of social classes. For instance, the excavated part of Hattusa reflects the social division of the city's inhabitants. The physical manifestations (fortifications) of this division between royal, administrative, religious, and public parts make it easy for visitors to understand the city's social structure. The city of Ebla provides a similar prototype. The palaces, temples, and monumental buildings are located in the center of the hill, the surrounding areas are devoted to public people, and the edges are occupied by workers. The architecture and materiality of the discovered buildings reflect the difference in wealth between the center and edges of the city of Ebla. The same division is recognized in Enkomi and Cyprus; however, the topography is quite different.

The city of Ugarit is considered unique in terms of inhabitant' distribution within the city. The analysis of all discovered areas shows that the division of the districts does not reflect the people's social hierarchy. Instead, the city's districts were identified in light of the dominant functions regardless of how wealthy the inhabitants were (Figure 16). The physical fabric explicitly manifests this fact.

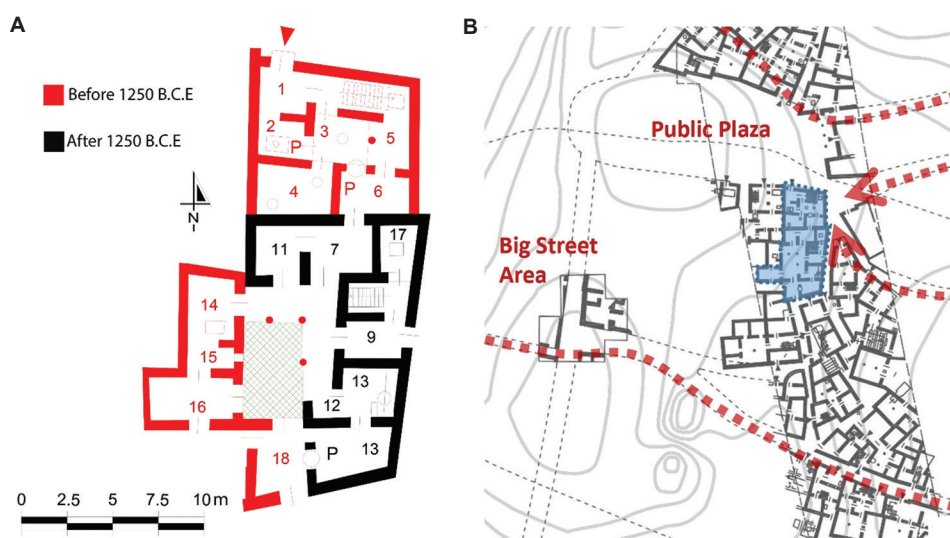


Figure 15. Themes of development in Ugaritic houses after the earthquake in 1250 BC. (A) The development of house B, block X, south city in Ugarit. (B) House B, block X, and its relationship to Public Plaza. The detailed plan was produced by the author using AutoCAD software and based on topographic information and the author's fieldwork in 2013 and an analysis of available archeological reports

For example, the Residential Quarter, which scholars used to name as Aristocratic Area owing to the high quality of buildings' materiality, comprises many small and simple houses whose area is sometimes around 60 square meters and which consist of four simple spaces. On the other hand, some big and rich houses (house B and block X) which reflect the owner's importance and wealth are located in the South City area. This house accommodated several professional workshops and storage. Archeological analysis pointed out that the northern part of this house, at least, was most probably built in three storeys, whereas the southern part was built in two storeys (Figure 15). This strongly reflects that the house owner was a member of a higher-position social group and did, nevertheless, build their house in the same area where many simple and poor houses existed.

The better materiality of the buildings at the Residential Quarter can be attributed to the urban development

process and its location to the east of the new urban artifact, the Royal Palace. This area was consequently the first area to be influenced by the new architectural and urban developments in the city after building the Royal Palace. As it was confirmed by the archeological sounding at the eastern part of the Royal Palace, the Royal Area and Residential Quarter were occupied by dispersed simple and poor houses; this facilitated radical improvements in this part of the city, unlike the case of the areas around the temples where most inhabitants had lived in dense fabric. This resulted in well-constructed and organized structures and urban areas, which do not necessarily reflect the wealth of the inhabitants, but rather the professional status, functions, and the developed architectural, social, and cultural trends, and urban principles.

Based on the written sources,³⁵ it was confirmed that the palace controlled the city's trade with other cities and

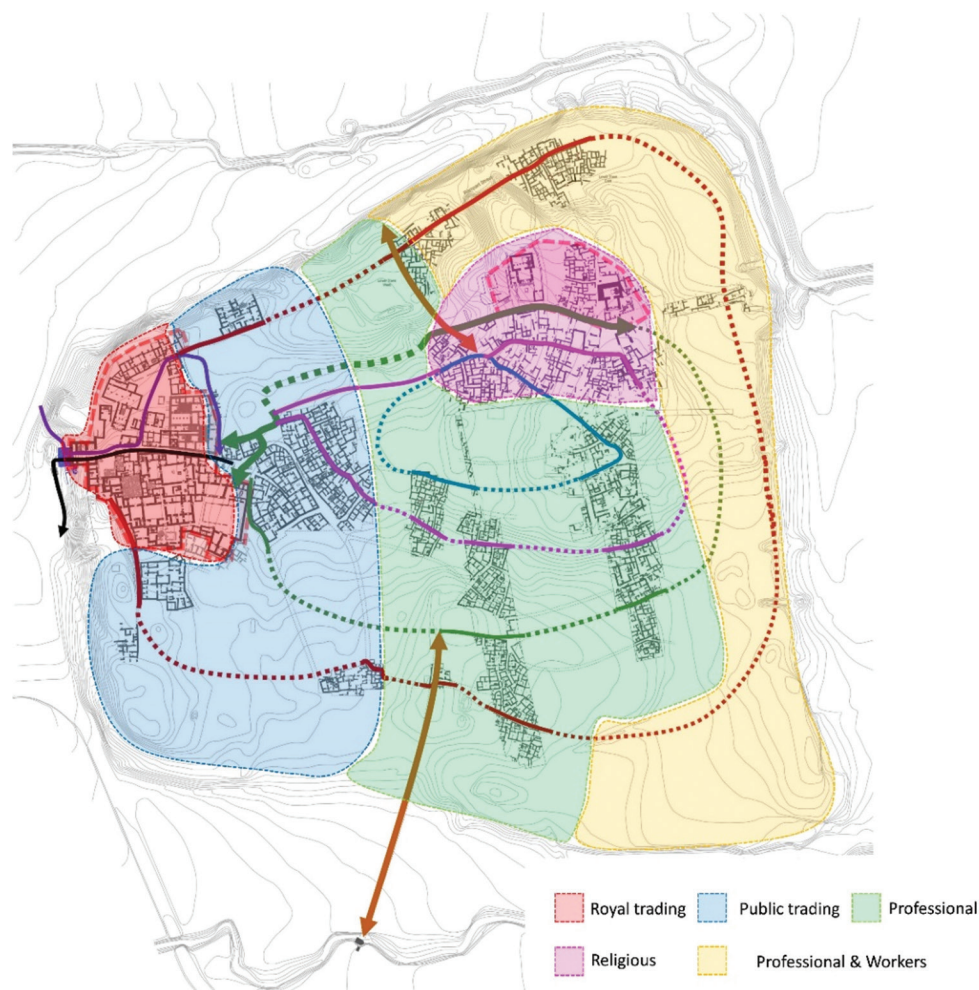


Figure 16. The possible zones of Ugarit according to inhabitants and functions distribution. The drawing was prepared by the author using AutoCAD software based on topographic information and the author's field analysis and observation in 2013

cultures. The analysis of the Residential Quarter shows that it comprised some public buildings (tavern and baking oven) and shops (single shops and bazaars). Therefore, it can be assumed that the inhabitants of this area supported the royal family's trade and worked on internal and external commercial activities. On the other hand, the South City area accommodates different professional workshops (bronze workshops, oil presses, mills, *etc.*), shops, and storage attached to the houses. Consequently, professional work and the city's production were centralized in this area and perhaps the neighboring areas, such as the City Center and the South Acropolis Slope. The Acropolis and the Lower City are different as very few workshops were found there. The inhabitants of the Acropolis area most probably worked on serving the function of the two big temples, maybe on farming too, whereas the findings of the Lower City indicate that the inhabitants were normal workers who came from the kingdom's towns and villages or sometimes from far away to work in the capital city of Ugarit.

The street network of the city (Figure 16) demonstrates that these professional, religious, and political zoning did not affect the city's urban and social dynamics; it can be recognized that these districts/zones were well connected through primary and secondary streets to facilitate the social cohesion, pedestrian traffic, as well as urban and socioeconomic complexity of the city. The strong physical connection between all areas further evidences the unique social and cultural attributes that were developed among the Ugaritic people in the city.

4. Discussion

Ugarit is the city where people worked hard to organize their urban environment through subsequent social and cultural developments. However, the final urban form was of an organic structure. The location of the city and its relationships to the surrounding suburbs and landscape enabled its development to the stage of a capital city, or a city-state, of a relatively big civilization. Based on the analysis above, the quality of Ugarit's urban form and structure can be summarized as follows:

- (i) The location and morphology grant the city unique characteristics within the surrounding landscape and make clear its controlling role
- (ii) The external representations of the city (walls and gates) were of monumental and cultural significance
- (iii) The urban form of the city presents the Ugaritic people's planning experience to organize their structures on difficult topography
- (iv) The connection between the main temples and the Royal Palace manifests the cultural and economic characteristics of the city
- (v) The urban development forms in the city show various

- and valuable transitions which touch upon political, economic, social, and cultural aspects of the city's life
- (vi) The functional-based (strongly connected) distribution of people within the city brought a unique urban structure of Ugarit, in comparison with contemporary Bronze Age cities; this urban structure highlights the sustainable social environment of Ugaritic people during the Late Bronze Age
- (vii) The innovation of the alphabet and alphabetic writing system, a unique event in Ugaritic history,¹⁸ revolutionized the city's performance and facilitated our understanding of Bronze Age life; this aspect is physically manifested by the distribution of libraries within the city (Figure 17).

The city of Ugarit had a unique urban structure, and revising the relationship between the Royal Area and the rest of the city confirms this fact. Although the Royal Palace was separated by a checkpoint, it was physically very well connected with the city through Palace Street. The palace occupies the western part of the Public Plaza without any strong fortifications to separate it from other parts to the east. Accessing the New Royal Zone from the city side, therefore, was significantly simpler than it was in many contemporary cities from the surrounding cultures. This principle further differentiates Ugarit as a friendly city that had a high quality of social interaction among its inhabitants and between the inhabitants and their rulers. The existence of the public plaza between the Palace and the Residential Quarter further reinforces this interpretation, which contributes to the unique internal and social image of the city of Ugarit.

The concentration of the city's production in the eastern areas (South City, City Center, South Acropolis Slope, *etc.*) promotes the interpretation of other possible accesses to the city from the northern, southern, and eastern sides (Figure 16). These possible accesses are essential for enhancing the production of the city through facilitating strong relationships with the resources, and the farms. This interpretation sounds highly logical taking into account many discovered cities, contemporary to Ugarit, such as Ebla in Mesopotamia and Enkomi in Cyprus whose structures were based on the four-access system. This further externalizes the image of the city within its physical and cultural contexts and highlights the types and the nature/purpose of its key connections with the surroundings. The physical representation of these connections (the gates) with the fortifications contributes to the city's collective image. Although we know more about the western gate of the palace and its monumental qualities that represent the advanced political and economic status of the kingdom,¹⁸ the other gates are still missing. Based on understanding Ugaritic approaches to

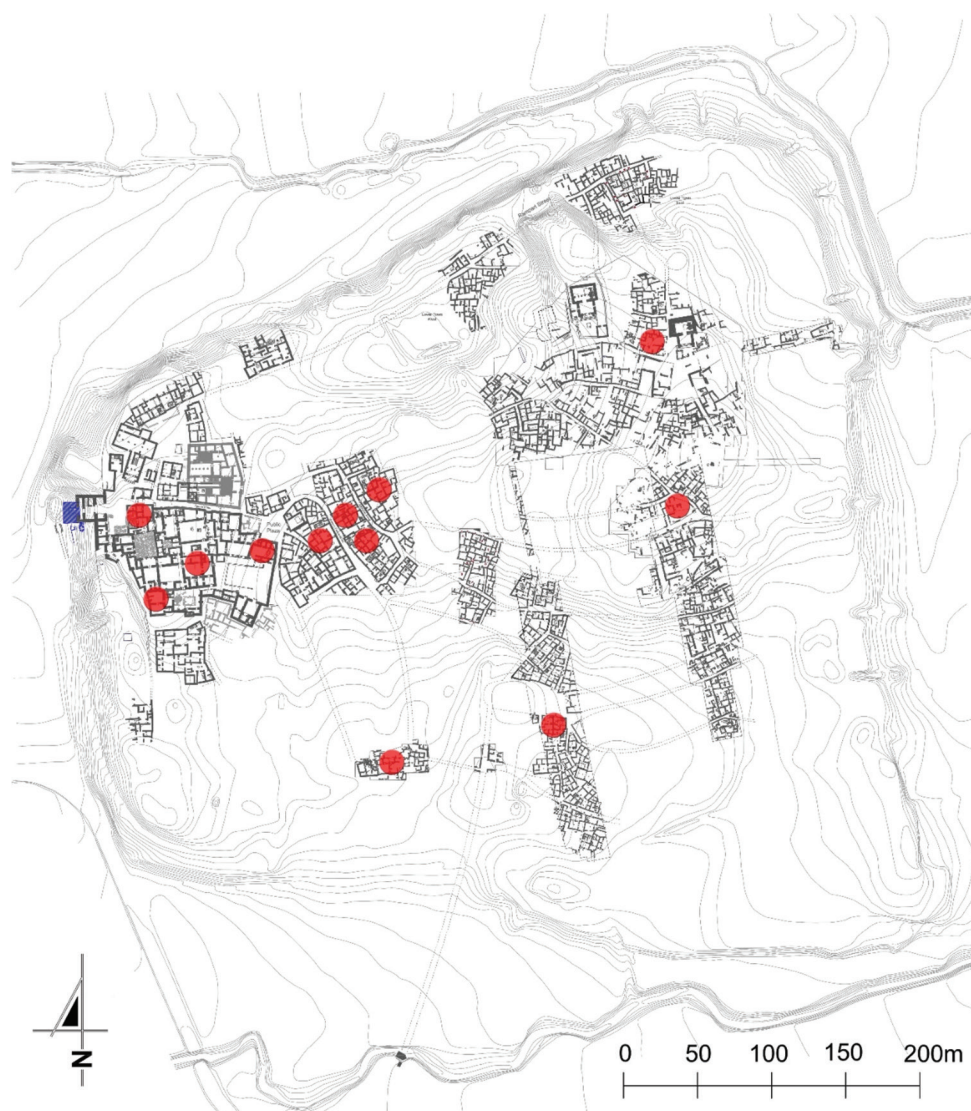


Figure 17. The distribution of discovered libraries and archives so far in the city of Ugarit. The drawing was prepared by the author using AutoCAD software based on topographic information, archeological reports, and the author's field analysis and observation in 2013

their architecture, which follow its purpose, I believe that the other gates would have been much simpler in terms of construction and monumental quality. The findings and interpretations of the southern gate and its timber bridge support this interpretation.

The topography and morphology of the city contribute to its overall image too. The palace-temple relationship is one of the key features that contribute to the city's identity. The strong urban connection between these two dominant sites in the city does not only reflect the urban quality but also accommodates intangible (cultural, social, ritual, and religious) dimensions that communicate the story of development, conflict, and survival between these two powerful components of Ugaritic people's life and place. This further highlights the special story that can

be narrated by the materialistic dimension of the city of Ugarit (the ruined urban fabric).

The organic urban structure that characterizes the city of Ugarit contributed to social connection and comfortable traffic across the city and facilitated an intimate urban environment for the communities. This is an important dimension of the internal image of the city. The ruins of Ugarit showcase this urban structure and its development between the Middle and Late Bronze Age periods where new urban components (plazas, wide streets, *etc.*) were used in later stages of the city's life (Figure 18). What characterizes these urban structures is the existence of residential, professional, and cultural/religious functions all together in well-planned urban agglomerations that guarantee the privacy of each function but with smooth circulation and connections.

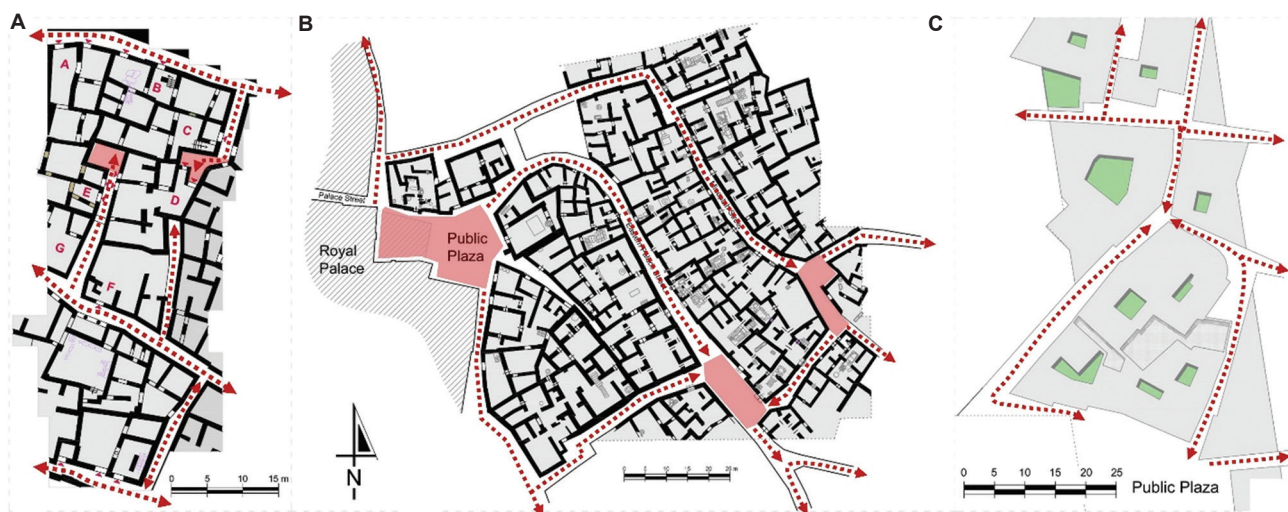


Figure 18. Various urban patterns in Ugarit. (A) City Center. (B) Residential Quarter. (C) South City. The drawings were prepared by the author using AutoCAD software based on topographic information, archeological reports, and the author's field analysis and observation in 2013

5. Conclusion

Ugarit is the city where people had worked hard to organise their urban environment through subsequent social and cultural developments. However, the final urban form was of an organic and well-connected structure. The location of the city and its relationships to the surrounding suburbs and landscape enabled its development to the stage of a capital city, or a city-state, of a relatively big civilisation. Exploring the image of this ancient city within a contemporary framework enabled highlighting the key architectural and urban practices and advancements, organically implemented in the city over centuries; this also facilitated situating these architectural and urban principles within the historic and contemporary debates in order to 1) expose the cultural significance and intangible heritage dimensions linked to Ugaritic people's architectural and placemaking achievements, and 2) demonstrate how cultural and religious dimensions had informed unique urban forms in the city. Understanding the internal and external image of the city will help the tourism management work of the site and audience engagement with its knowledge in the future. Although conservation proposals are needed for each part of the city based on their values and narratives, the understanding of the city scale can inform an urban conservation proposal that acts as a framework to connect and articulate all individual areas' narratives in a consistent and well-told narrative that audience can easily perceive on the site. This framework would act as a guideline for archeologists to plan and execute future excavations on the site to complete or clarify certain interpretations (as a priority) and open new cultural and heritage narratives of the site. Of course, this framework is challenged with a few key limitations

that should be addressed. Therefore, future excavations are quite important for confirming specific interpretations concerning the urban structure of the city. For example, the potential southern and northern accesses need further excavation to clarify their nature and other possible gates that organize the traffic from and into the city. In this case, it is crucial to search beyond the city walls. The northern area has been significantly eroded, whereas the southern borders are still intact. Since the city is considered a landmark within the region, any conservation project for the sites around Ugarit, particularly the two dominated harbors, should consider their regional and landscape characteristics and mutual relationships with the capital city of Ugarit. This highlights the importance of understanding the image of the city to the wider region including the excavated sites and future excavations. As a capital city, its image is important to tell the story of the whole region and the Bronze Age kingdom. This research has established a process to understand the urban and architectural image of ancient cities. By intertwining concepts from archeology, architectural history, and urban studies, it was possible to unveil key components that contribute to constructing the image of ancient cities. Such work that interconnects interpretations from different scales to create new narratives and meanings of the historic/archeological built environment supports meaningful conservation of and community engagement (tourism) with these sites and provides a guideline that could streamline the efforts of different parties that work on different aspects of ancient cities, such as Ugarit.

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Conflict of interest

The author declares that he has no competing interests.

Author contributions

This is a single-authored article.

Ethics approval and consent to participate

Not applicable.

Consent for publication

There were no participants involved in this work. The only permission the author needs is for reusing figures from published work/reports if needed.

Availability of data

Not applicable.

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ARTICLE

Enhancing cultural cognition in handicrafts through short video strategies

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Abstract

Digital technology is revolutionizing human relationships and lifestyles. Short video platforms are becoming essential channels for the dissemination of intangible cultural heritage (ICH). Traditional handicrafts represent a crucial element of ICH and are extremely culturally significant. However, short video contents generally focus on superficial production processes and neglects deeper cultural contexts. The cognitive schema theory can be leveraged to enhance the creation of short videos about traditional handicrafts and improve their practical value by aiming to intensify user understanding. The study methodology entailed a literature review, comparative analysis, participatory observation, and case analysis. A cognitive schema-based model was developed for video creation and validated through a case study on Guangcai porcelain. This model effectively organizes traditional handicraft knowledge and enhances cultural cognition through narrative and sensory design. The study findings deliver new theoretical and practical insights for the creation of short videos on traditional handicrafts and offer a reference for other cultural dissemination methods. Future research should explore the application of the cognitive schema theory across discrete cultural media channels to encourage innovation and expand the transmission of cultural heritage.

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Keywords: Cognitive schema theory; Traditional handicrafts; Short videos

1. Introduction

Technological advancements are reshaping societal relationships and lifestyles in the current digital age, and short video platforms have become the primary means through which the public explores and appreciates intangible cultural heritage (ICH). China featured 1,557 national ICH projects by June 2022 with an impressive 99.74% representation on the Douyin platform. Videos showcasing these ICH projects have accumulated a staggering 372.6 billion views and garnered 9.4 billion likes.¹ China's diverse ICH categories range from folk literature, traditional music, and dance to traditional drama, storytelling, acrobatics, folk art, traditional crafts, traditional medicine, and folklore. Traditional handicrafts are notable as the most abundant among these classifications with 241 national-level projects. These traditional crafts embody the rich cultural elements of different eras, ethnicities, and regions and serve as vital carriers of ICH. Short videos represent popular tools for mobile information consumption. They offer users an active means of acquiring knowledge and introduce innovative channels for the transmission and preservation of traditional crafts

in modern societies.² However, the contents of short videos on traditional crafts currently tend to focus on the delivery of surface-level information. Often, they entail simplistic demonstrations of craft-making processes and lack any in-depth explorations of their cultural significance.³ Recent studies have highlighted the potential of short videos to engage audiences and enhance cultural understanding. However, the extant studies also reveal a notable gap: most short videos on traditional handicrafts emphasize visual appeal and entertainment over educational content; thus, they do not convey the intricate cultural narratives and skills inherent in these crafts.⁴ This gap underscores the need for innovative approaches that enrich cultural content and engagement by integrating educational frameworks into short video production.

This study addresses this gap by leveraging the cognitive schema theory, which posits that individuals organize and interpret information based on pre-existing cognitive structures. According to cognitive psychology, the application of cognitive models can assist users in constructing knowledge networks. In particular, cognitive schemas can significantly enhance cognitive efficiency in the digital age.⁵ This study applies the cognitive schema theory to the creation of short videos about traditional handicrafts. In so doing, it aims to deepen user understanding and enhance the practical value of such videos in preserving and promoting traditional crafts.

The diagram in Figure 1 overviews the principal segments of the study, displays the interrelationships between them, and elucidates the research rationale, intending to enhance the coherence and overall structure of the study. The concept definition section establishes the key terms used throughout the paper. Next, the data acquisition subdivision details the foundational data sources and outlines the methods of collecting them. The core issues addressed by the study are identified in the problem statement column, and the creation strategy section presents the proposed solutions. Subsequently, the design practice portion validates these strategies using practical examples. Finally, the discussion and conclusions

section summarizes the key findings and explores future research directions and potential applications. The study methodology entails a comprehensive literature review, comparative analysis, participant observation, and case analysis. A cognitive schema-based model is constructed for the creation of short videos and is validated through a case study on Guangcai porcelain, a historically significant traditional Chinese craft renowned for its intricate designs.⁶

This study contributes to the literature on the preservation of cultural heritage by providing a structured approach to the enhancement of the contents of short videos on traditional handicrafts. The proposed model integrates the cognitive schema theory into video production and offers theoretical and practical insights that can be applied to varied cultural dissemination methods. The findings of this study produce significant implications for content creators, educators, and cultural heritage professionals seeking to leverage digital media to impart education and facilitate the preservation of cultural inheritances.

2. Data and methods

2.1. Definition of short videos on traditional handicrafts

According to the *China Short Video Market Research Report*,⁷ the industry defines a short video as a new video format that does not exceed 20 min in length. This format relies on mobile smart devices for filming, editing, uploading, and playback. It also features instant sharing and interaction functionalities on social media platforms. Based on this definition, short videos on traditional handicrafts can generally be described as video content related to the culture of traditional handicrafts and disseminated to the public through short video platforms by a diverse array of communicators including government agencies, relevant organizations, artisans, and the general public.

2.2. Data collection and participants

This study employed participatory observation and content analysis to analyze the content characteristics

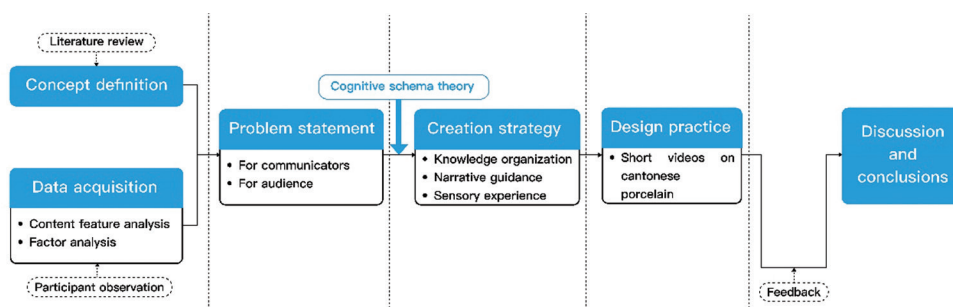


Figure 1. Research Framework. Image created by the authors.

and presentation methods of existing short videos on traditional handicrafts. The principal researcher spent 1 – 2 h daily viewing short videos related to traditional handicrafts on the Douyin platform. Douyin was selected as the primary source of the study samples because it has become the predominant hub for traditional handicraft short videos.⁸ The platform hosts specialized accounts focusing on specific traditional crafts and includes comprehensive accounts introducing discrete traditional crafts. In addition, Douyin features a diverse array of content creators, both professional and amateur.

2.2.1. Sample selection

The “Revitalization Plan for Traditional Crafts of China” defines traditional handicrafts as crafts and products that possess historical heritage, reflect ethnic or local characteristics, are closely related to daily life, and rely primarily on manual techniques for their production. These crafts exhibit unique creativity and personalized production and cannot be replaced by industrial manufacturing. Thirty keywords were selected based on this definition and on popular traditional handicraft categories listed in the “Douyin ICH Data Report” (2022).¹ Table 1 presents the selected categories, which included clay figurines, sugar figurines, dough figurines, and bamboo weaving.

The Douyin platform restricted the viewing of 277 videos. Therefore, the Newrank data platform was utilized for the sample selection to overcome the search limitations of Douyin. Newrank lists the top 500 videos for each keyword in descending order of likes, and the search conducted for this study resulted in a total of 15,000 video samples. A systematic sampling method was applied to ensure a scientifically objective sample selection and every fifth video was selected to obtain 100 videos per keyword. This process produced 3,000 valid video samples.

2.2.2. Category construction

The academic community has adopted varied perspectives on the classification of short videos featuring traditional handicrafts. Scholars such as Sun Ziping and Fan Chuanguo³ have conducted intensive observations and analyses of short videos on platforms such as Douyin, Kuaishou, and Weishi and have classified such videos based on their thematic content into daily records, craft documentaries, and narrative exhibitions. Another group of scholars has followed Wang Jushan’s⁹ classification method for visual ICH artifacts and has followed the creative approach perspective to categorize ICH-related short videos into primary, secondary, and embedded types.

This study conducted participatory observations of traditional handicraft short videos on the Douyin platform and integrated the stated classification methods to posit the three major content-based categories shown in Table 2. It thus grouped short videos on traditional handicrafts as emotion-triggering, purpose-oriented, and innovation-presenting.

2.2.3. Data analysis and results

The corresponding author and two graduate students accomplished the coding process, before which the corresponding author trained the coders and clarified the tasks and other details apropos the coding process. The coding was conducted intensively from March to May 2023 to ensure consistency and quality and enable the coders to adhere to identical standards and methodologies. The three coders collaboratively reviewed any disputed coding results to achieve consensus. Table 3 shows the unique characteristics of the three categories of short videos on traditional handicrafts as highlighted by the results obtained from the study’s video coding analysis.

Table 1. Keywords for observational sample collection

No.	Keyword	No.	Keyword	No.	Keyword
01	Clay figurines	11	Kesi weaving	21	Fan-making craft
02	Sugar figurines	12	Guangcai porcelain	22	Traditional papermaking
03	Dough figurines	13	Blue-and-white porcelain	23	Papercutting
04	Bamboo weaving	14	Jian ware	24	Thangka
05	Wood carving	15	Cloisonné	25	Iron painting forging
06	Stone carving	16	Miao silver forging	26	Sugar painting
07	Leather carving	17	Filigree and inlay	27	Cork painting
08	Nut carving	18	Batik	28	Mortise and tenon joint
09	Suzhou embroidery	19	Oil-paper umbrella	29	Traditional furniture making
10	Brewing techniques	20	Velvet flowers	30	Traditional incense making

Table 2. Coding and definitions of short video samples on traditional handicrafts

Category	Subcategory	Definition
A. Emotion- triggering	A1. Celebrity-related	Video content combined with pop culture or socially trending topics to evoke certain emotions in viewers and thus create a closer connection with them
	A2. Film and television-related	
	A3. Hot news-related	
	A4. Motivating words-related	
B. Purpose-oriented	B1. Outcome-focused	Video content showcasing craft items and their derivatives
	B2. Process-focused	Video content elucidating the processes of making craft items
	B3. Economics-focused	Video content aimed at selling traditional handicrafts and their derivatives
	B4. Tutorial-focused	Video content offering targeted step-by-step explanations of the craft
	B5. Narrative-focused	Video content providing a comprehensive introduction to traditional handicrafts
C. Innovation-presenting	C1. Innovation-focused	Video content displayed using creative techniques
	C2. Plot performance-focused	Video content featuring simple plot performances intended to garner audience sympathy for traditional handicrafts or craftsmen

Table 3. Content-based classifications of short videos on traditional handicrafts and their respective proportions

Category	Number and subcategory	Sample size	Proportion (%)
A. Emotion-triggering	A1. Celebrity-related	120	4.0
	A2. Film and television-related	111	3.7
	A3. Hot news-related	113	3.7
	A4. Motivating words-related	317	10.5
B. Purpose-oriented	B1. Outcome-focused	1,317	43.9
	B2. Process-focused	1,654	55.1
	B3. Economics-focused	399	13.3
	B4. Tutorial-focused	168	5.6
	B5. Narrative-focused	756	25.2
C. Innovation-presenting	C1. Innovation-focused	827	27.6
	C2. Plot-performances-focused	133	4.4

Note: Generally, individual short videos on traditional handicrafts tended to incorporate rich content; thus, overlaps or repetitions were common in the classification of the study samples.

2.3. Content-based classifications of short videos on traditional handicrafts

2.3.1. Emotion-triggering

Creators of this type of video aim to evoke specific emotions in the audience, fostering a closer connection with viewers and quickly garnering significant attention. For example, the wood carving artist Lu Zhengyi transforms blocks of wood into iconic anime characters on Douyin with anime music playing in the background. Thus, traditional handcrafted items become carriers of anime imagery, which establishes an emotional bond with the audience and results in widespread attention for the ICH practitioner. From a communication studies perspective,

audience engagement is central to media competition. Social hotspots and entertaining content can pivotally attract traffic in the current fast-paced media environment due to their high entertainment value and sensory appeal. Emotion-triggering videos accounted for around one-fifth of the study sample and were significantly more popular than other categories, indicating that traditional artisans tend to enhance the visual appeal and entertainment value of their videos. However, the pursuit of highly stimulating content for such videos can sometimes cause their cultural depth and artistic value to diminish. Thus, this trend toward entertainment could undermine the original objective of cultural preservation and could lead to public misunderstanding of the cultural inheritance.¹⁰

2.3.2. Purpose-oriented

Purpose-oriented videos are created to achieve specific goals, including showcasing (B1, B2), commercial monetization (B3), and education (B4, B5). The first subcategory of showcasing videos is closely connected to the production of traditional handicrafts. These videos typically document crafting processes or depict finished products using the documentary style.

The second subcategory of commercial videos primarily exhibits traditional handicrafts and their derivatives to attain economic value. Such videos often include links to products or announce live stream schedules. This subcategory accounts for 13.3% of the total video samples and reflects the trend toward the marketization and popularization of traditional handicrafts.

Educational videos comprise the third subcategory. These videos simplify the crafting process or provide a detailed breakdown of the steps entailed in the creation of the concerned craft. Thus, they make it easier for

viewers to understand and participate in the creation of traditional handicrafts. For instance, Wang Lanying is a representative inheritor of the ICH of Chiping papercutting from Shandong province. She selects relatively simple papercutting designs and films methods and processes step-by-step, clearly detailing aspects such as paper preparation, sketching, folding, and cutting (Figure 2). This approach encourages viewers to actively engage in the papercutting art experience.

In addition, videos focusing on disseminating knowledge about traditional handicraft culture are predominantly produced by local governments, ICH transmission centers, and professional multichannel networks. This study’s analysis of the collected sample data indicates that such videos constitute more than a quarter of all purpose-oriented videos and concentrate principally on comprehensively introducing traditional handicraft culture and presenting accounts of their transmission. Such short videos are extremely high quality and exhibit high production standards. They resemble mini-documentaries and utilize professional-level filming techniques and camera work to deliver visual experiences.

Overall, the core contents of short videos on traditional handicrafts primarily entail craft demonstrations and the dissemination of cultural knowledge. Videos produced by artisans tend to focus on the authenticity of traditional crafts and aim to convey the intrinsic value of the handicrafts. In contrast, official production agencies emphasize the atmosphere, refine narratives to achieve artistic effects, and present traditional handicraft culture from wider perspectives. Both approaches share the goal of directly showcasing the essence of traditional handicrafts in limited

time frames. However, traditional handicraft culture must be deconstructed and fragmented to align with the fast-paced nature of short videos. Such disintegrated depictions can result in superficial and disjointed representations of cultural content.

2.3.3. Innovation-presenting

Videos designated to this category are extremely inventive and feature novel expositions. Technology-enhanced presentation methods reflect a pioneering aspect of such videos. The rapid proliferation and ongoing evolution of 5G technology have fostered the emergence of “panvideo” and “supervideo” short video dissemination models that incorporate diverse and layered interactive design elements. These components include animation effects, prop stickers, background music, and community topics and inspire unique online audiovisual formats. For instance, Dian Shi Digital’s 2022 animation video “Prosperity Returns, See Chang’an Again” utilized motion capture and special effects computing to disperse the colors of the Peking Opera costumes through the movements of the actors, merging them with liquid paint flows (Figure 3). This esthetically pleasing short video became quite popular on Douyin’s trending list.

The innovation-presenting category of short videos also explores novel narrative methods to resonate emotionally with viewers: for instance, they employ plot performances to depict the creation processes of handicrafts and highlight their problem-solving abilities. These videos often adopt the conflict–resolution–happy ending narrative structure and augment their visual appeal through ensemble performances. However, the strategy of intensifying



Figure 2. Short video tutorial on papercutting by Wang Lanying. Reprinted with permission of Wang Lanying. <https://v.douyin.com/iATc7FMB/xFU/06/28h@B.GI>

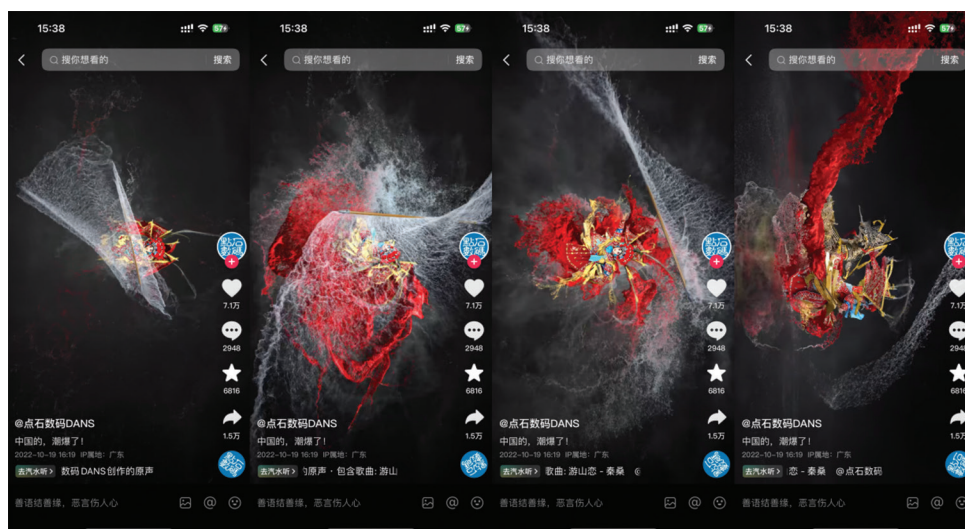


Figure 3. Screenshot from the short video “Prosperity Returns, See Chang’an Again”. Reprinted with permission of Shenzhen Diانشi Digital Technology Co., Ltd. <https://v.douyin.com/iATTUK8t/05/27> can:/O@X.Mw

emotional appeal by means such as portraying suffering to elicit sympathy can cause polarized interpretations by the audience. For instance, the Douyin account Deshan Handicraft Shop (Douyin ID: V_31701414) features videos that often depict elderly individuals in worn clothing making handicrafts with voiceovers such as “Old man, stop doing this; no one will care about you.” Such videos are meant to attract audience attention but can provoke adverse reactions. Audience comments on such videos reveal their displeasure: some viewers of one such video have suggested that it would collect likes in larger numbers if the voice-over was removed; others have claimed that the more the voice-over discourages, the less they want to engage. Such excessive manipulation to grab viewer attention through emotional exploitation undermines the content quality; it also risks fostering negative perceptions of traditional handicraft.

2.4. Composition and design elements of short videos on traditional handicrafts

2.4.1. Thematic elements

Thematic elements encompass the titles and central messages of short videos; they establish the direction and focal point of content dissemination. From the perspective of communication studies, the titles of videos are crafted with precision and care. They serve as a primary tool for attracting audience attention and significantly shape the initial perceptions of the video content. In addition, the titles act as vital channels of knowledge dissemination. Moreover, they function as cultural tags in the domain of self-media and help users navigate and identify specific content from the vast flow of video information. Thus,

titles are pivotal to the ways in which users discover and engage with short videos.

2.4.2. Structural elements

The structural elements of short videos on traditional handicrafts encompass their systematic arrangement and presentation of contents related to the knowledge of traditional handicrafts knowledge. Logical and coherent connections must exist between information presented in discrete videos. Essentially, the designing of structural elements entails presenting the complex knowledge systems of traditional handicrafts to viewers in clear and easily understandable forms. Given the characteristics of short videos, the structural elements include the selection and arrangement of traditional handicraft knowledge points as well as the cognition of how this knowledge can be effectively conveyed in a limited time.

2.4.3. Narrative elements

Narrative elements function crucially to organize and present video content in a manner that enhances the effectiveness of information transmission. Thus, they incorporate aspects such as narrative structures and perspectives. Narrative structures dictate how handicraft-related knowledge is organized in a video. For example, a linear narrative structure would unfold chronologically and thus help viewers better and more logically grasp the evolution of handicraft culture. More complex narrative structures such as accounts that are multiline or include flashbacks can reveal the multidimensionality and nuances of handicraft-related knowledge and can thus enrich the experiential understanding of viewers.

Narrative perspectives influence how viewers subjectively experience and perceive video content. A first-person anthropomorphic perspective can provide an immersive experience, foster emotional engagement, and inculcate a sense of identification. In contrast, a third-person perspective can yield a broader view and allow viewers to understand the cultural and technical backgrounds of crafts from an objective standpoint, enhancing the authority and persuasiveness of the content.

2.4.4. Representational elements

The representational elements of the short videos primarily include visual and auditory components. Visual elements include video thumbnail designs, color usage, and the layout of images and text labels (subtitles). These elements collectively enhance the visual perceptions of viewers, guide their attention, and increase the legibility and appeal of the presented information. Auditory elements such as voiceovers, background music, and environmental sounds create the atmosphere of the video. They engage viewers emotionally through their sound-related nuances and variations and add narrative unity and depth.

3. Problem statement

Representing traditional handicraft culture through the medium of short videos has evolved into a novel artistic form. This transformation reflects the efforts of the creators of such videos to align their content with the unique characteristics of the dissemination channels and audience preferences related to short videos.¹¹ This study's participatory observation identified significant variability in the quality of current traditional handicraft videos. Commonly detected issues included excessive focus on entertainment-driven narrative styles, fragmented content, and homogenized video formats.

Information dissemination and cultural sharing represent the core attributes of short videos on traditional handicrafts. The current state of such videos remains suboptimal despite technological advancements facilitating content creation. This situation highlights a critical issue for in-depth analysis: how can technological innovation be sustained while ensuring that videos effectively transmit the cultural values of traditional handicrafts without sacrificing their cultural depth? The sections that follow will exhaustively explore such challenges and propose potential strategies to address them.

3.1. Communicators: A lack of effective cultural expression

Short video narratives on traditional handicrafts function as key communicators in the process of preserving and conveying the value of ICH artifacts.¹⁰ At present,

the generated content significantly lacks the effective articulation of cultural value. In terms of Wang Jushan's classification¹¹ of ICH imagery, the currently disseminated traditional handicraft short videos can be categorized as original, derivative, and integrated.

Original creations strive to authentically represent traditional crafts. They focus on skill demonstrations and exploit behind-the-scenes narrative strategies to succinctly showcase the essence of traditional crafts in limited timeframes. However, traditional craft culture must be dissected and distilled to adapt to the concise rhythm typical of short videos. Thus, the cultural content depicted in the imagery of such videos often appears shallow and fragmented.

Derivative creations often blend storytelling with elements of popular culture or topical social issues to better connect with audiences. For instance, creators such as the woodcarving artisan Lu Zhengyi on platforms like Douyin sculpt iconic anime characters from wood to anime soundtracks to establish emotional ties with viewers and attract their interest. The broad entertainment appeal of this approach can divert from the fundamental goal of safeguarding ICH and risks the audience misinterpreting the cultural value of the showcased artifacts.¹²

Integrated creations are designed to elicit viral dissemination through the use of inventive strategies exemplified by videos such as Li Ziqi's "Brush, Ink, Paper, and Inkstone" series. These videos leverage traditional crafts such as papermaking and ink production to craft spaces filled with poetic serenity and evoke images of an idealistic haven. This subtle yet profound technique helps audiences engage deeply with the intended cultural narratives. Nonetheless, the popularity of such videos can result in their adoption as standard models for audiovisual creation and can spawn waves of very similar and standardized short videos on traditional handicrafts. Such uniformity threatens the diversity of creative expression and innovation and undermines the positive and sustainable evolution of cultural legacies.¹³

3.2. Audiences: The impediment in the cognitive process of information

From the cognitive psychology perspective, the act of viewing videos by audiences entails interactive engagement with the contents of short videos on traditional handicrafts so viewers can build suitable cognitive frameworks. Such interactions encompass psychological phenomena such as sensation, attention, memory, and reasoning. Accurate cognition is unattainable if any of these elements are compromised.¹⁴ Attentional barriers predominate: consuming information demands viewer attention, and

information accumulation naturally results in attention deficits. Viewers must navigate a range of information as they immerse themselves in short videos on traditional handicrafts. Thus, their attention is often divided, and their focus shifts between the myriad snippets of knowledge. Many viewers are reluctant to engage in comprehensive and intensive analyses and resort to passive “scrolling activities,” which cause the cultivation of superficial, stackable consumption patterns in reading, learning, and thinking and obstruct the acquisition of meaningful knowledge.¹⁵

Memory constraints represent the second major hurdle. The varied presentation styles of short videos offer viewers a wealth of sensory stimuli but also challenge the finite capacities of the short-term memories of audiences. The fragmented structure and absence of logical flow of short videos on traditional handicrafts significantly complicate the processes of integrating new information with the pre-existing knowledge bases of viewers. Such situations can cause misinterpretations because non-linear information structures can induce confusion and lead viewers to derive inaccurate conclusions or construct fabrications during the knowledge assimilation process.¹⁴ Such obstacles can also provoke misunderstandings as audiences fail to comprehensively comprehend contexts, erroneously equate pieces of cultural information with the whole, or accept incomplete knowledge as absolute truth. This segmented approach to information processing relies on short-term memory and thus obstructs the cognitive processing of information. It erodes thorough cultural understanding and weakens the systematic structures of cultural knowledge, adversely affecting the evolution of traditional handicraft.

4. Integration of cognitive schema theory and short video creation

German philosopher Immanuel Kant posited the concept of schema,¹⁶ emphasizing that schemas act as connectors between concepts and sensory objects. He postulated that concepts were themselves meaningless unless they were linked to familiar knowledge. British psychologist Frederic Bartlett further developed the notion of cognitive schemas in the 1930s in his book *Remembering*,¹⁷ describing them as the brain’s active reconstructions of past reactions or experiences. This framework elucidates how information functions in knowledge bases and outlines how individuals integrate new information. Swiss psychologist Jean Piaget later underscored the importance of cognitive schemas in his cognitive development theory.¹⁸ He presented the cognitive process as a pattern-matching exercise rooted in prior experiences rather than mere acts of inputting, storing, and retrieving data. The development of cognitive schemas

streamlines the acquisition of new knowledge. This theory has recently been applied in diverse fields. For example, Tingting Cui *et al.* used the schema theory to devise a three-phase microlecture teaching model to address language erosion in contemporary microlecture formats.¹⁹ Yue Xin and Yijiao Wang^{20,21} demonstrated the positive impact of the cognitive schema theory on improving book forms and enhancing the reading efficiency of readers. Such findings have affirmed the efficacy of the schema theory in enhancing learning efficiencies, enriching knowledge bases, and optimizing learning.

The ongoing advancement of the cognitive schema theory opens innovative avenues for its application to the learning of traditional crafts and the designing of short videos on traditional handicrafts.

4.1. Analysis of the theoretical principles

Cognitive psychology suggests that individuals undergo a specific “processing” stage when they grasp new information or concepts.²² The schema theory includes both bottom-up and top-down processing modes and effectively elucidates this processing path (Figure 4).²³ The aim of crafting content for short videos on traditional handicrafts is to visually convey and share cultural content with audiences by focusing primarily on the efficient distribution of extensive data systems that underpin traditional handicraft. The utilization of cognitive schema processing techniques can facilitate the unraveling of the cognitive mechanisms that inform traditional handicraft culture, provide essential insights, and offer theoretical support for the exploration and evaluation of creative approaches to the production of short videos on traditional handicrafts. Investigating the functioning of the cognitive schema theory in the development of such videos can enhance scholarly

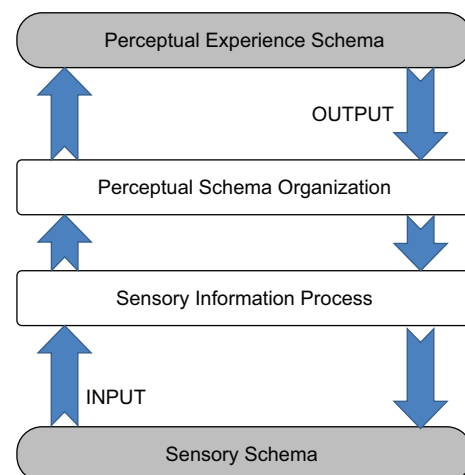


Figure 4. Top-down and bottom-up cognitive schema processing. Image created by the authors.

comprehension of how audiences interpret and assimilate cultural content. This approach would enable creators to formulate more impactful communication strategies and deepen audience engagement with and appreciation for the intricate meanings embedded in traditional handicraft culture, and thus advance the objectives of cultural preservation and widespread understanding.

4.1.1. Top-down cognitive schema of traditional handicrafts

The top-down processing model crucially shapes the cognitive schema for traditional crafts, leveraging the existing knowledge and experiences of individuals to help them assimilate and interpret new external information or stimuli into their cognitive frameworks.²⁴ For instance, viewers automatically tap into their knowledge and prior experiences with the ceramic arts when they first view a video on blue-and-white porcelain craftsmanship. Viewers can assimilate and accommodate the contents of the video based on their current experiential schemas even if they lack substantive familiarity with blue-and-white porcelain and can thus form a new understanding and appreciation for the craft. This model allows viewers to progressively refine and enhance their cognitive schemas as they delve deeper into related content. Therefore, content creators should align their presentations and integrate material with the cognitive patterns of their audiences to ensure effective knowledge uptake and conceptual transformations. For example, grouping similar concepts in demonstrating the processes involved in creating blue-and-white porcelain can help video creators establish a knowledge hierarchy ranging from fundamental to more sophisticated schemas. This strategy would facilitate a more profound audience grasp and assimilation of the craft's intricacies and foster the development of a comprehensive and organized knowledge framework in the minds of viewers.

4.1.2. Bottom-up cognitive schema of traditional handicrafts

The bottom-up processing model entails the extraction of nuanced information elements from the data realm by cognitive agents. These elements must be amalgamated into diverse forms to develop perceptual schemas. For instance, viewers integrate data related to the nuances associated with blue-and-white porcelain to deduce knowledge about it: for instance, its shapes, colors, materials, tools, and distinctive crafting techniques (Figure 5). Traditional handicrafts often employ bottom-up cognitive schemas to facilitate feedback and assessment. For example, the appreciation of blue-and-white porcelain requires individuals to align incoming data with pre-existing mental knowledge structures for the interpretation and comprehension of their perceptions.

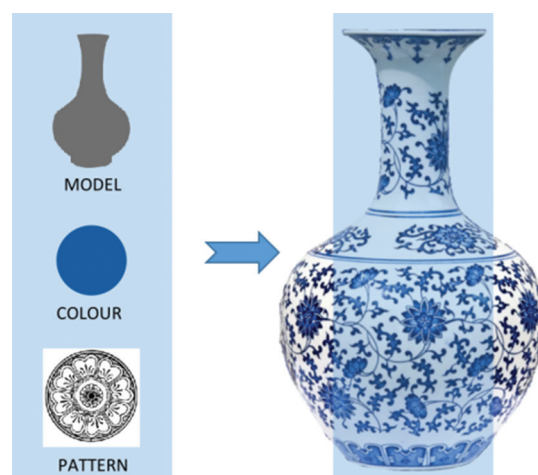


Figure 5. Bottom-up cognitive schema of blue-and-white porcelain. Image created by the authors.

Moreover, bottom-up cognitive schemas enable audiences to expand their knowledge. For example, creators of certain integrated short videos on traditional handicrafts blend the general schema of legacy crafts with personal experiential schemas to forge new design languages. Such efforts augment the schema repertoires of creators and enhance their grasp of traditional schemas. Consequently, creators should heed the perceptual feedback obtained from their viewers in making short videos on traditional handicrafts and steer viewers toward engaging in post-distribution activities such as critiquing and appreciating the creative designs of artifacts. Such practices help viewers formulate thorough, precise, and affirmative cognitive schemas and encourage a more profound recognition and valuation of traditional handicrafts. This strategy significantly boosts the dissemination efficacy and cultural resonance of traditional handicrafts in contemporary societies.

4.2. Creation strategy for short videos on traditional handicrafts

Principally, the rationale for using the cognitive schema theory to guide the design of short videos vests in the ability of this framework to understand and target processes through which human beings process information, construct knowledge, and recall memories. The theory can thus be applied to design short video content that can enhance learning outcomes and viewer experiences by optimizing the organization, presentation, and audience interactions. Thematic, structural, narrative, and representational elements are crucial for short video design. These essential components are intricately linked to interventions based on cognitive schema theory and can be graded into three levels: knowledge organization, narrative guidance, and sensory experience.

Complex knowledge systems are simplified into units at the knowledge organization level to help audiences understand them easily. The logical and structured arrangement of knowledge enables viewers to build complete and consistent knowledge systems. Engaging descriptive content is used at the narrative guidance level to activate and adjust cognitive schemas. Specific scenarios and emotional elements are employed to reinforce the emotional resonance and memories of handicraft culture in viewers. The sensory experience level focuses on optimizing the material presentation of information through visual and auditory design aspects. This level stimulates specific cognitive schemas by deploying diverse audiovisual stimuli to augment the perception of the information by viewers.

4.2.1. Knowledge organization: Designing a hierarchical knowledge structure to enhance the coherence of knowledge

Traditional handicrafts are alluring due to their abundant diversity and intricate complexity. It is crucial to strategically categorize source materials when such crafts are adapted to digital video formats. Creative resources can be more efficiently pooled and integrated by classifying cultural contents into distinct groups based on their unique features²⁵ to enrich and structure the contents of short videos. Therefore, the cultural content of traditional handicrafts must be subjected to a structured analysis informed by memetics.²⁶ The term memetic theory⁹ is derived from the biological concept of gene replication and this concept postulates that cultural systems and processes are akin to genetic evolution in terms of their continuity and iterations. This biological analogy can be utilized for the hierarchically segmenting cultural memes of traditional crafts into three tiers: external, intermediate, and internal. The external layer denotes the outer shell and showcases tangible aspects of the material culture: for instance, the colors, shapes, patterns, and histories of handicrafts. The intermediate layer acts as a conduit and represents practices and behaviors associated with traditional crafts: for example, their tools, materials, processes, and techniques. The internal layer forms the essence and encapsulates spiritual and value-based memes of the handicrafts.

These strata are hierarchically linked and the meme complexity escalates at each level. This methodical division and arrangement enable audiences to grasp the interconnectedness of piecemeal information. It increases the comprehension of viewers and facilitates the construction of an expansive knowledge framework related to traditional handicrafts.

In practical terms, serialized short videos can allow creators to develop a more systematic collection of traditional handicraft cultural knowledge. This approach

entails the strategic organization of content based on the conception of discrete categories of traditional handicrafts and their relevance over time.

4.2.2. Narrative guidance: Multilinear narratives aligned with audience cognition

The narrative structure of short videos on traditional handicrafts concerns how content is organized and categorized; it transcends simple content display and mirrors cognitive and decision-making processes. The contents of every video follow distinct narrative paths. The essential contents of short videos often blend elements such as video clips, images, and animations.²⁷ The order of presentation of such elements should be logical and should align with the traditional handicraft culture they represent. A coherent sequence aids audience immersion into the world of traditional crafts and precludes difficulties related to pacing, comprehension, or interest retention.²⁸ Thus, creators crafting short videos on traditional handicrafts are tasked with carefully designing narrative structures to ensure that their contents are captivating and comprehensible, and effectively communicate the profound value of the showcased handicraft culture.

4.2.3. Sensory experience: Integrating presentation forms to enhance user experience

First, the creation of video content in the present era of converged media mandates more than the mere transfer of videos across platforms²⁹ and requires an intensive grasp of interactive technologies. These technologies are advanced but creators must skillfully utilize them to enhance the format of short videos. They must integrate programming, interface design, and content strategy to comprehensively exploit the versatile and varied presentation benefits of short videos.³⁰

Second, presentation styles significantly influence how audiences build cognitive schemas. Creators must carefully choose their presentation styles and align the distinct features of each style to the psychological schemas of their audiences. Different knowledge categories demand tailored presentation mediums due to the specificity of traditional handicraft knowledge. For instance, static displays are ideal for schemas related to patterns, dynamic formats are apt for schemas concerning historical knowledge, and active experiential approaches are apposite for schemas related to craft techniques.

5. Designing short videos on Cantonese porcelain

This study focused on Guangcai porcelain³¹ and developed a comprehensive series of short videos to validate the effectiveness of the previously described cognitive schema theory. The designing of the short videos on

Guangcai porcelain encompassed two facets: content and presentation.

5.1. Content design of the short videos on Guangcai porcelain

5.1.1. Collection of Guangcai porcelain cultural materials

The systematic process of designing the contents of the short videos on Guangcai porcelain involved clustering cultural resources and organizing knowledge related to Guangcai porcelain. Initially, wide-ranging data including historical documents, artworks, production techniques, and cultural stories were collected on Guangcai porcelain. These collected cultural resources were then systematically organized and categorized, and disorganized data were transfigured into an orderly, easily comprehensible, and communicable knowledge system. Finally, the knowledge system of Guangcai porcelain traditional craftsmanship was defined to include aspects such as historical development, types of vessels, patterns and decorations, colors, practical tools, production processes, and the symbolic meanings of the elements of Guangcai porcelain.³²

5.1.2. Knowledge organization of the short videos on Guangcai porcelain

The knowledge organization of the Guangcai porcelain short videos can be divided into three parts in accordance with the cognitive schema theory. The first section comprises explicit knowledge such as the history, patterns, colors, and forms of Guangcai porcelain. These aspects were categorized as the perceptual level of audience cognition. This segment aimed to schematically introduce a large amount of sensory-level traditional craft content to enable viewers to formulate initial impressions. Therefore, this stage focused on visual language, and information was presented through graphics, colors, symbols, and simplified visual elements to make it easily receivable and memorable.

The second segment attended to the techniques of crafting Guangcai porcelain to interactively reinforce understanding of traditional craftsmanship tools and techniques and engage viewers. This segment incorporated collaborative video formats to enable representational cognition in viewers. Viewers could click on discrete options and follow branching narratives to explore varied details of the porcelain-making process. Such simulated operations allowed viewers to experience the production process in a virtual context and aided their comprehension of complex technical features.

The third division entailed the final stage of the cognitive process and intended to enable viewers to utilize the knowledge they had acquired from the initial stages of

sensory introduction and behavioral simulation. Viewers could then transform the accumulated information into personal and applicable understanding and creativity. In this segment, viewers grasped the deeper cultural meanings and spiritual connotations of Guangcai porcelain through appreciation and were guided to engage in personalized creations across platforms after the video ended. This approach enhanced viewer comprehension of the Guangcai porcelain culture and helped them shape personal cognitive impressions of this craft form.

5.2. Design and production of the short videos on Guangcai porcelain

5.2.1. Script creation

The previously outlined knowledge organization pertaining to Guangcai porcelain was utilized to design and create a series of short videos that collectively constructed a comprehensive framework for the comprehension of the Guangcai porcelain culture. The initial phase focused on using highly visual language to present perceptual content including the historical development, vibrant colors, intricate patterns, and discrete forms of Guangcai porcelain. The intermediate phase employed an intellectual property (IP) storytelling³³ approach combined with interactive video formats to direct the audience to grasp the craftsmanship techniques of Guangcai porcelain and foster learning through emotional resonance. The advanced phase centered on the appreciation of classic works and the interpretation of the symbolic significations of Guangcai porcelain. Links to custom mini programs were also embedded at the end of the videos in this phase, offering viewers an entry point for personalized customization and thus enhancing their overall apprehension of the Guangcai porcelain culture.

5.2.2. Filming and design of visual elements

The main visual content of the videos featured Guangdong Provincial Ceramic Art Master Ms. He Lifen, a Guangdong Provincial representative inheritor of the national ICH project of Guangcai porcelain firing techniques. Ms. He has accumulated profound expertise and extensive experience in the field of Guangcai porcelain and personally demonstrated the entire process of Guangcai porcelain firing techniques.

The application of this design incorporated virtual schematic techniques in addition to live-action shooting. Shades of gold and flax were selected as the primary colors for the short videos on Guangcai porcelain (Figure 6), reflecting the traditional esthetics of Guangcai porcelain and creating a warm yet solemn visual atmosphere. This approach enhanced the emotional resonance and cultural

identification of viewers.³⁴ These colors were consistently applied throughout the schematic visual elements of the videos, ensuring overall visual unity and harmony. A flat style was utilized for the design of visual elements: elements were extracted from Guangcai porcelain patterns and the author’s subjective understanding and perception of the Guangcai porcelain culture was incorporated to create a series of stylized visual patterns and elements.

In addition, a mind map-like visual language was employed for content previews to enable viewers to quickly grasp the overall structure and core information presented in the videos. Pause screens were inserted at key turning points to signal upcoming content changes and give viewers some time to reflect and process information. These transition pages optimized the narrative flow and strengthened cognitive scaffolding. Thus, they aided viewers in understanding and absorbing the complex techniques or important cultural information presented in the videos (Figure 7).

A knowledge summary was provided in question format at the end of every video, to allow viewers to review the content and to reinforce the cognitive effects of the

video by stimulating recall and reflection. The summary also encompassed a preview of the next video in the series to spark curiosity and anticipation in viewers. The previews were designed to resemble trailers of television series. This approach effectively encouraged continued engagement, enhanced the coherence of the video series, and increased viewer participation.

The refined construction of visual language was based on the strategy of enhancing the cultural expressiveness of visual elements at the sensory experience level. This strategy facilitated the effective transmission of the cultural connotations of Guangcai porcelain and attracted the attention of the younger generation.³⁴ The cover design integrated the imagery of Guangcai porcelain with handwritten calligraphy to convey the unique cultural charm and artistic value of this craft form (Figure 8). Backgrounds and texts were integrated to introduce scrolls, brushes, and porcelain shapes for subtitle designs. Thus, clear visual symbols were established for different content segments to achieve precise information transmission and increase visual appeal. Moreover, lightweight design elements such as frosted glass effects were cleverly incorporated to endow the subtitles with an elegant and



Figure 6. Colors and graphic designs utilized for the short videos. Image created by the authors.

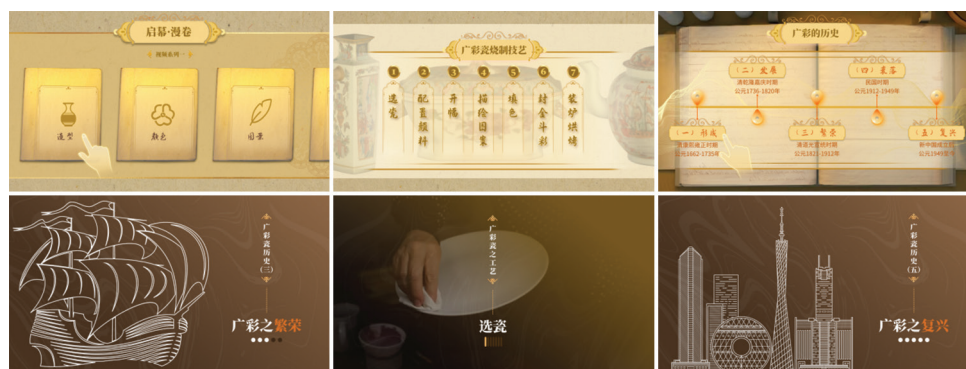


Figure 7. Visual designs employed in the short videos. Image created by the authors.



Figure 8. Design of the cover and subtitles for the short videos on Guangcai porcelain. Image created by the authors.

translucent esthetic. This design strategy resonated with the esthetic preferences of younger viewers while reflecting a profound grasp of modern esthetic demands vis-à-vis the dissemination of traditional culture.

5.2.3. Video editing

The post-production phase emphasized the voice-over narration, sound effects, and color grading. The soundtracks of the videos featured Chinese classical instrumental performances to enhance the historical and artistic milieu of Guangcai porcelain culture. Upbeat background music was used to evoke emotional responses from the audience. Cantonese was used for the voice-over narration because it signified the language of the birthplace of Guangcai porcelain, aligned with the regional cultural characteristics of this craft form, and established an authentic cultural atmosphere in the videos.³⁵

The sound effects were meticulously categorized as authentic scene sounds and emotional sound patterns. Authentic scene sounds included auditory elements such as a brush dipping in water, porcelain clinking, and fire burning to realistically resemble the process of Guangcai porcelain-making. Such sounds allowed audiences to experience auditory details in sync with visual content. Emotional sound patterns were intended to arouse feelings and were particularly employed in interactive video segments. Positive or negative feedback sounds were introduced in such sections to reinforce the emotional engagement and enhance the interactive experience of viewers.

Visual adjustments aimed primarily to ensure that all video materials were visually congruent with the overall styles and tones of the short videos on Guangcai porcelain and could thus ameliorate the viewing experience. For instance, color correction was necessary to adjust cool-toned footage to match the overall style if the raw footage displayed cooler color tones while the overall video style tended toward warmer hues. This approach prevented inconsistencies in color styles that could disrupt the viewing experience. Any unnecessary or distracting elements in the footage were also addressed by using the repair or cover-up

features of the editing software to ensure visual clarity and focus on the thematic content.

Motion effects were employed to add a new dimension to the videos. Thus, static images or elements were imbued with dynamic effects to augment the visual impact and amplify expressiveness. The application of dynamic effects such as animated subtitles, transition effects, and graphic animations made the visuals more engaging and provided additional creative space for storytelling. For example, motion effects were utilized in illustrating the Guangcai porcelain crafting process to simulate brush movements on porcelain or animate firing changes. This technique increased information delivery efficiency and significantly ameliorated the appeal and educational value of the contents of the videos.

5.3. Short video presentations and feedback

5.3.1. Video series 1

This section of videos (Figure 9) attended to the core concepts of the Guangcai porcelain knowledge base. It aimed to create experiences that could guide users through the vast knowledge structures of Guangcai porcelain while coherently connecting sensory knowledge content in a manner that aligned with the pre-existing schemas of viewers to facilitate their speedy apprehension of the video themes.

An overview of the video was provided before the actual content was presented so that viewers could grasp the general theme and structure of the video. This method effectively activated their cognitive schemas and helped them rapidly comprehend and retain the showcased craftsmanship process. A combination of 3D animation and text-graphic presentation was used to introduce historical contexts and technical terms to simplify information delivery and reduce cognitive load.

Moreover, IP characters and expert narrative perspectives were integrated at the beginning of the video to attract viewer attention and ensure engagement through lively imagery. Thus, viewers were guided into the narrative content to intensify their understanding of cultural



Figure 9. Selected frames from series 1 of the short videos on Guangcai porcelain. Image created by the authors.

connotations. Expert perspectives included firsthand accounts from traditional craftsmen and were interspersed throughout the videos to enhance the authority and authenticity of the contents.

Finally, knowledge summaries and review questions encouraged viewers to recall the contents of the videos, ensuring that viewers could update and expand their knowledge structures based on their new experiences.

5.3.2. Video series 2

The contents (Figure 10) of this section of short videos followed the “general-specific-general” structure, combining theoretical knowledge with practical skills and transforming the craftsmanship process into a narrative. In this story, a Guangcai porcelain spirit named Caicai appeared as a friend of the craftsman and showcased the daily life of the artisan. Caicai guided viewers through the transformation of a white porcelain base to a vibrant Guangcai porcelain piece.

Users could follow Caicai to learn each step of the porcelain-making process, making choices based on their own judgments. Caicai’s knowledge and magic revealed the secrets of each step. Real footage of the techniques used by artisans was interspersed with interactive video scenes to ensure precision and authenticity in demonstrating the requisite craftsmanship.

The interactive plot integrated the IP character with storytelling to encourage users to continually challenge and expand their existing cognitive schemas and foster their desire for deeper exploration of the contents of this series of videos. Users confronted with diverse decisions tend to rely on their experiential schemas to quickly identify the core elements of the interactive information. Misjudgments resulting from choices conflicting with their existing schema compel viewers to adjust their current schema or construct new schemas to accommodate the fresh information, particularly apropos their understanding of the techniques of creating Guangcai porcelain.

The videos in this series offered viewers positive feedback for their correct choices through auditory applause and visual confetti effects. This strategy enhanced user satisfaction and further motivated continuous exploration and learning.

5.3.3. Video series 3

This series of videos aimed to hone the understanding and appreciation of viewers vis-à-vis Guangcai porcelain culture. The videos focused on the appreciation of classic Guangcai porcelain works and in-depth interpretations of their symbolic meanings to direct audiences from the internalization to the externalization of their accumulated knowledge on the subject while also enhancing their engagement and practical skills. The contents of this



Figure 10. Selected frames from series 2 of the short videos on Guangcai porcelain. Image created by the authors.

video series revolved primarily around the appreciation of modern Guangcai porcelain pieces (Figure 11). Visuals and narratives were carefully arranged in this video series to help the audience build complete cognitive schemas of sensory experiences and knowledge representations. Thus, this series strengthened the understanding and appreciation of viewers about the layered connotations of Guangcai porcelain culture.

A link to a mini program on Guangcai porcelain customization was embedded at the end of the videos in this series to offer viewers a platform through which they could engage in personalized customization and augment their overall understanding of Guangcai porcelain culture. This mini program (Figure 12) enabled users to customize their creations, facilitating active participation and creativity during the learning process. Users could create unique original works by freely selecting visual elements and personalizing texture designs on 3D models. The system constructed an interactive learning environment through natural human-computer interaction by offering positive feedback and interactive offline content during the

learning process. Users could express their understanding and interpretations of Guangcai porcelain culture through their personalized creations. Thus, this video series achieved the goals of education related to traditional handicrafts while stimulating viewer creativity and honing the practical abilities of audiences.

5.3.4. User feedback

The feedback on the Guangcai porcelain short video series was overwhelmingly positive. A group was selected from viewers of short videos to collect user feedback. This group of viewers was invited to view the three Guangcai porcelain video series and interviews were subsequently conducted with them.

The selected viewers praised the engaging and informative content, highlighting the clarity of the visual and narrative elements. Many users noted that the incorporation of interactive features significantly enhanced the learning experience, making the complex craftsmanship techniques more accessible and understandable.

The character of the Guangcai porcelain spirit Caicai was especially well-received. Users felt that this character



Figure 11. Selected frames from series 3 of the short videos on Guangcai porcelain. Image created by the authors.



Figure 12. Interface design of the Guangcai porcelain customization module. Image created by the authors.

added a relatable and entertaining aspect to the videos and fostered a deeper emotional connection to the material. Users commended the amalgamation of real footage with interactive elements for its authenticity, its immersive qualities, and its effective transmission of the intricate details of the porcelain-making process.

The customization mini program also received affirmative feedback. Users appreciated the practical and creative outlet it offered them by allowing them to apply their newly acquired knowledge. They enjoyed the process of personalizing designs, which reinforced their understanding of the Guangcai porcelain culture and enabled them to express their creativity.

Overall, the user feedback indicated that the three video series successfully achieved their educational objectives, enhancing the cognitive understanding of Guangcai porcelain as well as the practical skills associated with this craft form. Users reported a greater appreciation for the cultural and artistic value of Guangcai porcelain and expressed heightened interest in further exploring traditional handicrafts.

6. Discussion

The integration of content on traditional handicrafts with short video narratives must balance the complexity of the showcased crafts against the preferences of modern

audiences. This study's innovative approach employed a virtual character who guided viewers through the production process of Guangcai porcelain. This method effectively blended traditional and modern elements to make the contents of the video series more accessible and engaging. The high-quality expression of content is crucial because audience sensitivity to visual and auditory quality significantly impacts learning and appreciation. The viewing experience is enhanced when visual effects and audio quality are ameliorated and the video length and pacing are adjusted. In addition, the selection of long or short video presentations and horizontal or vertical formats should align with the contents, audiences, and dissemination platforms of the videos. Long videos allow more comprehensive explorations, while short videos cater to quick consumption habits. Horizontal formats allow wider perspectives, whereas vertical formats are more apt for mobile viewing. Reach and engagement can be maximized by contemplating dissemination objectives in combining varied styles to ensure the effective transmission of ICH craft forms such as Guangcai porcelain.

7. Conclusions

Communication intended to disseminate traditional handicraft culture must transcend mere replication, modification, and widespread distribution of information. Essentially, such communication entails the adoption of transmissive strategies that align with contemporary societal needs to redefine public perceptions of traditional handicraft. Such communication must also drive shifts in public behaviors related to the cognition, consumption, and cultural application of traditional handicrafts. This study employed the cognitive schema theory to delve into innovative strategies that could facilitate the creation of short videos on traditional handicrafts that can profoundly impact both creators and audiences.

Creators embracing this creative approach to the production of short videos on traditional handicrafts could transcend the unpredictability of conventional methods, ignite genuine creative zeal in artisans, and diversify their thematic content and artistic techniques. Viewers of such short videos could experience the detailed cognitive process of perception, attention, memory, and reflection. The proposed method could replace the previously utilized disorganized and fragmented information-gathering approaches, facilitate the development of a foundational understanding in viewers, and inculcate comprehensive knowledge of traditional handicraft.

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Conflict of interest

The authors declare that they have no competing interests.

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Ethics approval and consent to participate

This study involves the collection and analysis of publicly available short video content related to traditional handicrafts on the Douyin platform. It does not involve human subjects directly, interviews, surveys, or any form of personal identifiable information collection. Therefore, ethics approval and consent to participate are not required for this research.

Consent for publication

All images included in this paper are either original works created by the authors or screenshots from short videos published on the Douyin platform. For original images, the authors hold full copyright. Screenshots from short videos have either been used with formal permission from the Douyin creators or under fair use for research and educational purposes. The source of each image is indicated in the corresponding figure captions. In addition, all data and information used in this study are derived from publicly available content on the Douyin platform. No direct involvement of human subjects was included, and no personal data or references that require individual consent for publication were used. Therefore, the content utilized in the study adheres to the platform's public information usage regulations, ensuring that privacy rights are not violated and copyright laws are respected.

Availability of data

The data analyzed in this study consists of publicly available short videos related to traditional handicrafts on the Douyin platform. These videos were selected based on specific criteria related to the study's focus on traditional handicrafts

and their representation in digital media. Due to the dynamic nature of content on Douyin and copyright considerations, direct links to specific videos cannot be provided. However, interested researchers can access these videos by searching for relevant keywords related to traditional handicrafts on the Douyin platform. This approach allows for the replication of the study's methodology within the bounds of the platform's content availability at any given time.

Further disclosure

Data in this paper comes from the ten accounts. We have collected the copyright permissions from all the creators (10) mentioned in the article. We contacted them by direct message in Douyin and everyone gave us a positive reply.

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ARTICLE

The Callegenera urban expressions festival: The resignification of urban-mural and street art

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Abstract

Urban art festivals are of great importance to strengthen the social and cultural life of communities, as they provide people with the opportunity to meet and enjoy various forms of creative expression, such as art, music, and dance, and also stimulate citizen participation. Evaluating the cultural and social impact generated by these festivals is essential to understanding their process and development, seeking future improvements, and ensuring their sustainability over time. For this reason, we have focused on the evaluation of the Callegenera Urban Expressions Festival, which has been held uninterruptedly in Monterrey, Mexico, from 2011 to 2022. Through qualitative research with in-depth interviews and life stories, the festival was explored as a space of introspection where boundaries are blurred to make room for art. We examined the emotional state of urban artists and graffiti writers, as well as the creative process through the intervention of space and economic aspects. In this way, we sought to understand the impact that this festival can have on the growth of the metropolitan area and its surroundings.

Keywords: Urban art festival; Artistic interventions; Callegenera; Monterrey

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1. Urban-mural art and the city of Monterrey

In the 21st century, the cultural field of urban expressions reflects the perception of life in the city, of the routines and figurations that tend to be related to the urban environment and that come to move or shake the conditions of life. In the city, urban art, such as graffiti, establishes a dialog with the city and the society that is built around it, transforming its space directly or indirectly. These expressions have emerged in legality through the participation of their creators in festivals, contests, and calls.

At present, there has been a boom in urban and street art festivals in the world, and Monterrey, Mexico, is no stranger to this entropy. This is how urban and street art progresses within the city that seeks in some way to claim a territory but also seeks to capture an identity, communicate, denounce, or beautify. In this work, it is described how

the Callegenera Urban Expressions Festival contributes to the resignification of urban-mural and street art.

Monterrey is a city located in the Northeast of Mexico. The metropolitan area is made up of nine municipalities, which are Monterrey, Guadalupe, Juárez, San Pedro, Santa Catarina, García, San Nicolás de los Garza, Escobedo, and Apodaca. It has a population of 5.3 million inhabitants. The city is characterized as a financial metropolis and the industrial capital of the country, in addition to having highly specialized hospitals and higher education institutions classified as among the best in Mexico.

This megalopolis has a rich and varied representation of urban-mural and street art. The city is a cultural mosaic and the perception of urban art and especially graffiti as a vandalism intervention is firmly anchored in society; however, it has gradually gained acceptance over time. Even Monterey boasts one of the only scripts of its kind in the world: the hook¹.

2. Callegenera urban expressions festival

The Callegenera Festival recognizes diversity through a space where differences and similarities coexist, with agreements and proposals to build new networks, exchanging opinions and lines. It seeks to promote, connect, and spread the wide range of urban expressions that coexist in the city. "Callegenera aims to give greater value to urban demonstrations as well as to de-stigmatize the perception of it. It is a festival without censorship or political purposes" as stated by Rodríguez, Director of Development and Cultural Heritage.¹

When referring to urban expressions, Callegenera alludes to the heritage that persists and that most of the time is hidden from the elite culture, due to its link with the so-called subculture. These expressions show a culture welcomed by urban groups, or so-called tribes, mostly made up of young people regardless of their social status, age, race, sex, or religion.² The expressions that they provoke in the streets of the city symbolize the Callegenera festival.

Callegenera marks a turning point within the urban artistic movements and the recognition of urban expressions in the state of Nuevo León. It provides spaces, selecting urban artists and writers to generate interventions, giving them a margin of legality by allowing and recognizing street dynamics, such as dance, skateboard competitions, mural interventions, and music. In this way, the festival is

consolidated as one of the most influential art forums and urban manifestations in the state and the country.

The Callegenera Urban Expressions Festival seeks to formalize the dissemination and expression of urban and street art to raise awareness and demonstrate the value of this type of avant-garde artistic expression. Through its exhibitions, it seeks to rethink the technique of graffiti on the wall, to raise awareness in society, and reinterpret this practice not as a form of vandalism but as an alternative expression since it not only serves to express but also manages to give a different aspect to the city, giving dynamism and personality to the environment, and it is in this context where new points of view and new perspectives can be found.

The detonating idea that Callegenera originated was an independent festival of art embodied in skateboards. The success and the quality of the works exhibited caught the attention of the authorities of the Council for Culture and the Arts of Nuevo León² (CONARTE), who decided to resume the idea, under their patronage, in the state of Nuevo León, Mexico.

Callegenera has been held uninterruptedly since 2011, featuring not only an exhibition of pieces and intervening walls but also music, skateboard competitions, break dance competitions, and bicycle competitions, accompanied by workshops, discussion tables, and conferences. It is, without a doubt, a record reference of everything that happens in the streets; therefore, it is the evidence of a sociocultural imprint of an intersubjective space that is founded and enriched by the existing dynamics and manifestations in the city.

The festival has managed to become a diffusion space for local, national, and international urban artists and therefore has offered it a certain legitimacy. At the same time, its contribution extends to beautifying city environments that have been forgotten, both by its inhabitants and by the government; in the same way, it has favored reducing prejudices toward street art and questioning and debating its origin, development, and current status of these expressions.

3. Callegenera generates a space for introspection

The first editions of the Callegenera Festival were held inside a closed space in the Parque Fundidora Generators Warehouse, which was configured due to the relationships and links with other institutions that have been formed

¹ The hook is a very elongated signature that tries to expand throughout the wall and appeared in the 90s of the 20th century due to the existence of large walls given the industrial character of the area. It still persists in the city.

² Public body of the State Government whose main objective is to promote and encourage the creation of different artistic manifestations within the state of Nuevo León.

over time. This is how the festival has maintained a close link and communication with the different media with which it interacts.

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This practice, in its beginnings, was treated as a laboratory for experimentation and discovery where a system of relationships such as the one that happened in galleries has been developed, breaking to a great extent with the evolutionary line or the art production system. Urban murals and streets limit its consumption, and in this particular case, its exhibition is very fleeting, as the walls are dismantled for new exhibitions since it lasts for a duration of approximately 10 – 30 days.

Callegenera, said Mr. Alejandro Rodríguez, Director of Development and Cultural Heritage, is a space in which respect for creators, and their proposals have been a primary factor for over a decade. “We have been very respectful in institutional terms; in these 10 years, we have never marked a thematic line, or we have never said “this expression is better than the other;” I think they have passed through the streets or the galleries of the Nave Generadores from tags, urban art, bombs. So, in Callegenera, it has earned respect in that sense because it has been very open not only to one type of urban expression.”³

It is important to underline that the artistic pieces and walls exhibited in the Nave Generadores are the result of the creative processes that took place at the festival, and they are the expressions of collegiate ideas that materialized not only in forms and esthetic representations but also in the evidence of abilities and skills of the artists; therefore, the magic of revealing the authorship of the pieces or works is lost, the hegemony of the organization is patent, and the privilege diminishes.

However, it must be recognized that the activities carried out at the festival help to understand and comprehend the evolution of urban and mural art typography, allowing the identification of its greatest exponents, revealing the practices, the mastery of the different techniques, as well as the styles, themes, and size of the production of the participants, at the local, national, and international levels.

The creations presented in the Nave Generadores are in most cases more complex works or pieces than those found in the streets. They are the product of the experimentation process that the Festival encourages. This process became

a reflection of the importance that innovation, creativity, and improvisation acquire in the current times, where the use of technology and the recycling of waste materials constitute important elements in today’s society.

In a society where the ephemeral also impacts knowledge, teaching is resignified as an act to transgress the forbidden. The instruction in this festival was a way to promote the creative search with new motifs, new explorations and with this to counteract the daily influence as a challenge to the social pressures that see urban and street art close to violence.

Another important turning point is that these spaces give way to dialog, allow processes to be shown, and learn first-hand about the experiences of those involved. Urban and street art, being an art that is elucidated in anonymity most of the time, being of rapid execution, does not allow that contact with its creator, and oftentimes questions are conceived without corresponding answers. Somehow, the festivals give away this information, which is not only in the interest of the population but also of the artists themselves.

In this way, “Callegenera is about collective and collaborative urban art. All the events that take place are around an artistic expression that arises and is fed by what is seen and felt in the streets of our city. It also allows us to approach other demonstrations and have an audience in the Nave Generadores that is not necessarily with us the rest of the year.”⁴ In general terms, what was relevant about the festival was that it became a space that socialized the currents and postures of the performers, where the participating community consumed a product characterized more by free intentions than by market criteria. This logic is visualized in the press when he referred to the freedom of creation that took place within a closed space “so that with complete freedom they can create what they normally do in the streets, only now from a space such as the Nave Generadores, a unique setting for this type of activity”⁴ as a way of normalizing the belief in the vandalistic nature of this type of expression. Or when he mentioned that “to the amazement of the spectators, the skaters showed off their skateboarding skills, zipping through space. Meanwhile, the graffiti artists captured their imagination on the walls of this enclosure.”⁵

4. Callegenera, undoing borders

The city is a symbolic construction, a system of representations and imaginaries that are constantly being re-elaborated and that have a notable impact on the very configuration of the physical space, on the political-administrative dynamics, both on the schemes of belonging and on the valuation of the city and the urban.⁶

Although it is true that the city is presented as a great piece of art where a mosaic of identities is built, transforming and implicitly communicating to its citizens, direct recipients of the interventions carried out by urban artists and writers, which allow a dialog with citizens. The city itself reflects the symbolic violence on the part of the state and the hegemonic groups who try to impose their tendencies and currents, sometimes rejecting or hiding these expressions.

However, something that can never be hidden, in its entirety, is everything that urban art and graffiti contribute to the city, a public space interpreted as a place of meeting and coexistence that contains and expresses the changes of humans in the different dimensions in which it acts, and invariably reflect a system of values, because going unnoticed is not a trend, nor is it an objective when using public space. It is, in turn, where all kinds of humans converge, almost always unknown to each other, but where they identify.

The public space is the place chosen by the creators to express their pictorial actions and writing, initially anonymous, but which quickly cease to be so due to the undeniable impulse to leave a mark that is unmistakable – an expression of identity and of the features that define a life and a context, making the public space an instrument of diverse creative value.

In this sense, contemporaneity can be visualized within the versatile space of society, which is a manifestation of various social aspects. However, the nature of the interventions in the social space has been called into question: is it urban art, is it graffiti, or is it simple vandalism? It is in the face of this same stigma that some interventions, especially graffiti and to a lesser extent urban art, have been linked to illegality and have been isolated from contemporary art. However, in practice, artistic interventions in the urban space have two aspects: legality and illegality, and the type of legitimacy it will obtain will depend on the characteristics of each of them.⁷ In accordance with this vision and given the wealth that the city provides, the Callegenera Festival decides to venture into the streets, that is, and it is without a doubt, the 2014 edition that would mark a milestone in this outcome, although it has not been maintained systematically.

The city of Monterrey warily harbors a large part of the footprint left by the 2014, 2015, 2016, 2020, and 2021 festivals, making these creations coexist with advertisements, graffiti, and persistent urban-mural art in the city, that is, they have been returned to their natural habitat, to the public space, a place chosen by these artists and/or creators to capture their interventions, both pictorial and written.

In addition to the meanings provided by urban-mural art and writing, these interventions sought to revitalize the city; the reconstruction of an audience was also stimulated, generating symbols and networks of meanings, based on the co-participation and the creation of cultural experiences, not only of its inhabitants and passersby but also of the artists and volunteers themselves³.

We return to the idea of Lefebvre⁸ when he explained that, in the spontaneous scenes of the street, one is at the same time a spectacle, a spectator, and also an actor, so in the same sense, the street and its spaces are the places where the city itself manifests itself, seizes places and makes appropriate use of time-space, hence the importance of intervening in the walls that shelter the city's public space.

This space "is the stage on which the drama of community life unfolds."⁹ In short, the walls intervened by Callegenera have somehow conquered the daily fabric and have become part of the identity of the neighborhoods; it has given legality to what has been produced, which has led to its conservation, care, and recognition.

It is important to point out that Mexico is the only country to have several *Meeting of Styles* venues⁴ that Monterrey for the first time in 2014 was the venue for this meeting of graffiti artists, who were in charge of intervening in the city's Metro stations, in a legal manner, and it is this meeting that allows Callegenera to undo the borders of the experienced space, understood as a place (Generators Ship), to venture into a key point of the city, reaching a greater number of public and a greater permanence in time. In Monterrey, 10 stations of the Monterrey Collective Transportation System were intervened.

On the other hand, in 2015, it was special, because, for the first time, all of the walls where artists intervened were located in public spaces in the city of Monterrey. The production of 20 murals had the collaboration of the participants of the 42nd International Cervantino Festival, specifically on one of the main roads of Monterrey. It featured the participation of well-known Neolonese urban artists: Ácaro, Beo Hake, Bern, Blast, Drom, Dose, Eskat, Homie, Hosier, Real 3, and Smok – eleven artists from Monterrey who carried out an intervention with a length of 130 m and a height of 7 m. Plastic artists Adrián Procel and Orlando Maldonado, national urban art artists such as X83, Osley, and Buytronick, and even international artists such as Jade, Cy, Saile, and Stinkfish also worked.

³ Assistants to urban artists in interventions in public spaces, chosen by calls launched by the festival itself.

⁴ International meeting of graffiti artists whose idea arose in Germany in 1995, but the current name dates from 2002.

In 2016, the interventions were directed to the spaces of the Cuauhtémoc station of lines 1 and 2 of the Monterrey Metro, seeking once again to position themselves in the so-called “no place,” a term introduced by Marc Augé (1992), that is, in those spaces of transit, which do not have history, identity, where human relations tend to become colder, standing out, at all times, in anonymity; in these spaces of the Metro, each visitor conceives it as the passage or the journey to their destination, whose route sometimes becomes their daily routine; therefore, the relationship with space and time is very different from what happened in the neighborhoods of the city.

Alfonso Reyes, director of operations of Metrorrey, declared to the press that the Metro has a daily influx of 530,000 people.¹⁰ It is important to mention that some of the intervened walls can be seen by passersby and motorists since the mural work also covers the exterior walls of the Metro. Sixty-two urban and collective artists were the protagonists of such work.

In 2020 and 2021, despite the public health emergency due to COVID-19, the festival’s advisory council decided to continue with the activities that characterize Callegenera, interventions on walls in public spaces; and the conferences, talks, discussion tables took over the networks to promote all that discourse, reaching very distant contexts.

The year 2020 was very significant because Callegenera celebrated its first 10 years, participated by 13 artists: Al Sahir, Buffon, Chamula Cruz, Chanate, Gser Cruz, Guire, Narval, Nirvana, Libre HEM, Vera Primavera, Anahid Hernández, Drain VRS, and Sanzcrak who left their works in the streets of the city. The works were largely medium format, except for the Libre HEM’s mural, entitled “Perpetual nature of change,” worked in acrylic, where the author shows a group of migrants at night, with blankets, jackets, hats, warming up with bonfires, people who seek to reach the border between Mexico and the United States and fulfill the long-awaited American dream when crossing the border.

But they will try to cross a geographical, physical, but not artistic border, since urban art serves as a denunciation of the social phenomenon, both on the one side and on the other side, as the Malaysian artist Snaketwo also reveals in his painting “Migration,” which contains a motley of electronic elements in bright colors and with a pictorial comic treatment, denoting the bewilderment of the various human beings who migrate because they seek a better life, which was exhibited at the Kuala Lumpur National Art Gallery within “The Wall: Dinding Bandar Art Exhibition” in January 2019.⁹

In 2021, interventions occupy two important spaces: one is line 3 of the Monterrey Metro and the other is public

spaces, in neighborhoods. Twelve artists participated in the latter: Gibrán Turón, Eder Salas, ECKS, Andy Graves, DMON, Ácaro, El Pura, Maga, Vale Valencia, Tercer Mundo, María Conejo, and Asero Rodríguez. All these interventions were of medium format. This year, the Metro was adorned with medium- and large-format works. Of medium format, the walls of Adans Sánchez, Fando Criez, Greometry, Marcos Ríos, Anahid Hernández, Guillenart, Rocío Darynée, Belinda Salasar, and Tatería stand out, and the large-format walls were in charge by Chanate Cruz, Beo Hake and in collaboration were Dario Diario/Vicent Mutant, plus Nirvana and Naval.

The results in these years of intervention in the public space were evident, where the practice of intervention and the discourses that emerge in the space managed to have a significant impact on everyone who observes it. Since those gray spaces gained in color and figures, his designs captivated the gaze of the traveler and passersby. The risk of this reflection is, of course, a celebratory contemplation of these murals, which gained popularity given the diffusion of the festival in the media, who could not avoid covering it, thus allowing the creation of a note as a reference to what would be present or learned during the time that Callegenera lasted. Without going into details, in some way, these interventions contribute to stimulating the sense of belonging, reinforcing the identity of the neighborhood, and beautifying the spaces; thus, understood in this way, it is assumed that a feature to be highlighted in the city revitalization projects, in any sense (social, cultural, economic, and urban), is to be decentralized, participatory and aimed at promoting social dialog.

Regardless of the fact that the interventions in these years took the city as the main stage in parallel, other dynamics of the festival were carried out such as discussion tables, talks, workshops, conferences, and cinematographic exhibitions, which coexist as a space of discursive construction, seeking to think about the conceptual and visual dilemmas of urban expressions; and the skateboard, break dance, and bicycle competitions were viewed as a cultural space. These activities had various stages such as the Nave Generadores, the Center for the Arts, the House of Culture of Nuevo León, and the Civil College Centro Cultural Universitario.

5. Focusing attention on street artists and graffiti writers

Artistic production and writing invade, little by little, the city. “Powerful” images have become interfaces that stimulate reflection or simply please or shock, images that in some ways are also part of life, of everyday life, that could go unnoticed, but really there is always an interaction, no

matter how subtle this be. Hence, knowing the experiences of these “owners” of the public space, or at the time, of the festival participants, could help describe the impact of Callegenera.

To do this, we used the in-depth interview and the life story. Two festival organizers, Luis Alberto Méndez and Edgar Favela, were interviewed, and a total of 16 interviews were conducted with short- or medium-career urban artists. In the same way, the life story of three artists with an extensive curriculum was told. Due to the COVID-19 emergency, we were unable to do fieldwork and thus resorted to using the *Zoom* video call platform, telephone calls, and written means to conduct the interviews. These arguments became interesting and blur the nuances of this connection with the festival.

Before recounting the findings, it is important to remember that Callegenera has had two important moments of intervention in its history: one with an experimental nature and diffusion in the Nave Generadores, and two, when it spreads to public spaces, *that is*, the city. The comments revolve around these moments.

On the one hand, Nave Generadores became a gallery during the festival, offering the artists some comfort, since they move away from the ravages of the weather, and on the other hand, it allows the spectators to enjoy the interventions in the same space as the artist and interact with them. However, at the end of the festival, these are replaced by digital media.

When the interventions are manifested in the street, the walls are reappropriated and reinterpreted by passersby and neighbors, taking over the dynamics of the street. It is in this scenario that urban art comes to life, recovers its essence, and remains at the mercy of time and people, achieving a more extended presence over time, compared to that exhibited in the halls of the Nave Generadores.

What do we discover?

5.1. First part: Callegenera and emotional state

In this part, the impressions that the festival offers artists and writers are added, that is, we review the guided emotions, feelings, and thoughts, which are influenced by participation in the festival as a creator Andy Graves (urban artist) mentioned that “I felt very happy to share the workspace with such talented friends, that is always very enriching. Above all, the total freedom of expression, attention, and the challenge I had when I was assigned a larger wall than I was used to is appreciated.”

Asero (AU) said that “This event opened doors for me, and it was an important step in my career because with the first Callegenera I decided to give my work a professional

touch and give myself 24/7 to my proposals.” Asero (AU) likewise mentioned that the festival has given him a position on the map of Nuevo León, getting him considered by projects and festivals in the Mexican Republic.

Cixmugre (AU) explained that “It is a very well-organized festival. I love how it works in the street, but it also works in a museum that is in the Fundidora. I was able to find a great curator. It is one of the best festivals I have gone to from my point of view, and from my point of view of the country.” Dario Diario (AU) said that “It’s cool, I learned several things there, the artists do it with the desire to teach and share what they know.”

Drs. Three (AU) cheered that “It was very pleasant to participate in such a good festival.” Faime (graffiti artist) is grateful for the recognition that the festival gives to women⁵. Marisol D’Estrabeau (AU) was pleased with “the experience of being part of a mature and lively project that results in professional and personal growth.” Treka (AU) highlighted the importance of “this type of platform that professionalizes and gives projection to many artists, which in turn makes them realize that their work is important and has a unique value.” He also added that “it is natural to feel that in these types of events, you have more projection and more people know your work.”

Vinalay (AU) pointed out that “I felt overwhelmed. I longed to participate. It was super cool. I really liked that you start to meet a lot of people, they start to locate you more. A lot of people saw my work, the simple fact of leaving my signature on the mural I painted put me at a point where certain people can recognize me... in terms of artist visualization support, showing the urban artist is very cool.”

Kitty Ramos (AU) said that, for her, “Callegenera is running into friends and colleagues. It has its own flavor; it is always a very happy time.” Peste Burner (graffiti artist) said that “Callegenera has been a link between people outside graffiti and urban expressions. It allowed them to learn about the subject and be seen by many with different eyes, opening the way to knowledge and tolerance. People who would never turn to look at graffiti.” Pyro (Grafitera) agreed that the festival has helped expand his work, apart from the fact that it has helped him grow and be more receptive to other challenges and projects.

On the other hand, others considered that the festival breaks with the natural dynamics of the interventions,

⁵ The Callegenera 2017 festival was dedicated to women. “We were like 30 but from different branches, but we were like 30, very few women, but when it came to graffiti women, it was just me. There were women, but from other branches. I don’t know them, but they did murals or something like that.” (Faime)

turning this concern into one of the weak links of the festival. One of the creators, El Pura (graffiti artist), said that “The truth is that I have never liked it very much Callegenera, for the same reason, which is not on the street. What the street generates should be in the same street.”

Similarly, Silvestre Madera (cartoonist and AU) considered that the current projection of the festival is not adequate. “Before, the best artists from Monterrey participated, some nationals, and foreigners, and each time it has been going down because the direction of the festival has been more focused on meeting an institutional parameter than with the demand of society. Sometimes, it seems that he is more focused in that sense than towards urban artists and art.”

5.2. Second part: Callegenera and critical basis

After holding the festival for 11 years (2011 – 2021), it is time for a critical evaluation to reformulate new strategies. These forms of socialization and intervention plus the analysis of consumption practices are essential to understanding an impact. If you may have noticed, no reference has been provided to the intervened walls, participating artists, attending public, central theme of each of the meetings, or economic resource used, among other indicators that could help to understand in depth the object of study: Festival of Urban Expressions Callegenera. Therefore, this work constitutes a preview of the first approach to the meeting, hence the interest of focusing only on what we consider significant for this moment.

The artists and writers have a shared vision in relation to two points of transcendental importance: one, the use of the intervention space, which has already been alluded to, and two, the economic resource, translated into the contribution of material to the artist/writer, on the one hand, and on the other, the gratification to the artist for the intervention.

What do the creators think about the space? El Pura (graffiti artist) commented that “the first impression I had regarding Callegenera was that it was a platform that was going to encourage painters to stand out, with support, I don’t know, from spaces, on the street, not in a closed space that not all they see it, only certain people. I’m from San Bernabé, from Fomerrey 116, and many people didn’t know that the center for the arts, the film library, and much less Callegenera were in the fundra park. It would be cool if the band were encouraged to paint things outside of a closed place.”

Silvestre Madera (AU) also mentioned that “a group of artists decided not to participate in Callegenera anymore, mainly because it contradicts its foundation,” referring to the closed-space Nave Generadores, as they consider it “a

closed space, which is within another space, so I think that takes away, steals a lot of the spirit of urban art.” Today, the organizers of the festival recognize it as a point for consideration, making an effort so that these interventions take place in the public space, a fact that has already been shown previously.

Asero (AU) commented that “interventions are in the street (a place where the capacity of visitors cannot be counted, but which contributes to the whole of society and to people who have the culture of going to a museum or gallery). This way catapults Neo-Leonese artists with quality work, intervening buildings, and walls on a large scale, opening renowned spaces for individual exhibitions, support, and scholarships.”

El Pura (graffiti artist) said that “There are so many walls, so much blank space, so many spaces that political parties use for their advertising and campaign, and there remain their dirty ugly colors. Moreover, it would be cool to revive those spaces. Normally I like to paint in places that are very messy or have ugly graffiti. Not graffiti that is already installed there, but that is no longer understood. I like to give and renew those spaces. I would be cool if Callegenera did that; look for more spaces and create more walls, and that they will last. Not that they painted a wall and erased it at a certain time. What is the use of spending on paint and time and ideas, to make a wall, and have it erased?” Kitty Ramos (AU) considered it important that Callegenera continues to be on the streets, “Hopefully she can be seen on the streets again.”

Marisol D’Estrabeau (AU), who was faced with the destruction and loss of wall interventions, proposed that “I would like the murals that were made again inside Nave Generadores to be on fabric; these fabrics could end up in schools or hospitals. All materials and time were invested in it. I think it could continue to live and generate its mission, to undertake souls. There are so many spaces without anything yet!” Treka (AU) proposed “to extend the meeting a little more, in the sense of adding venues and activations at different points to reach more people.”

Another latent concern is economic remuneration as a way of recognizing the work of the artist/writer. El Pura (graffiti artist) mentioned that “They don’t pay, I’m not saying they pay either, but at least they should support with a little more attention or material. It would be cool.” Peste Burner (graffiti artist) suggested that “there could be at least a symbolic payment for the artist.”

Vinalay (AU) agreed and mentioned that “There is something that if I didn’t like it outright, and it’s the financial support, the artist doesn’t get paid anything.” Silvestre Madera (AU) insisted on the recognition of the

urban artist and the writer through payment. Separately, El Pura (graffiti artist) referred to an important aspect in relation to the material: “they try to give you more paint than aerosols. And it is like learning to make something nice, a mural, and stop doing graffiti.”

Peste Burner (graffiti artist) recounted that “the issue of quality should be taken care of a little more, that is, not inviting people because it is what it is. If not, because of the great difference in quality of work and activity on the streets. Whether pieces, characters, or Street art. That they be active, original people with a commitment to quality. In order not to lose the status of the event and not be just another expo. That it be recognized for quality and respect. And whoever wants to be there, prepare and work to earn a place. And that they don’t invite you, because it is what it is or because there is no budget to invite someone else.”

6. Looking forward for a broader perspective

The contrast between temporality and the temporal landscape inside and outside Callegenera is evident. We can assert that there is a disruption in the festival in the space and main stage of urban art, in which the artist continues to generate his works, but the environment is designated and closed. It goes from stationary, open public spaces, where the works have a social temporality, to a stationary, closed public space, with a limited temporality.

By not occupying public spaces with interventions, the festival is limited to the reappropriation of public spaces by artists and the city, and a disturbance is produced in the main objective of urban art, which is to generate visual memories, as well as the appropriation and democratization of space.

On the other hand, there is a transformation in the symbolic space used by the artists when they intervene pictorially and graphically on the walls of the Nave Generadores. However, there is still a significant contribution within this change. Yes, the relationships in space and their correlations are no longer analogous to what they are in the street, new relationships are also created, especially those that are cemented between urban artists working in the same area. In this way, the space is configured toward one of creation, exchange of ideas, and artistic techniques. Thus, a spatial autocorrelation is conjugated between agents that have similar objectives, where a reciprocal space of knowledge is generated.

A motivational discontinuity between theory and practice is denoted. The motivations are centered on the individual and their need for catharsis, rather than being political. Circumstances are also present in which the

creation of the wall is driven by economic issues. The motivations are reflected in the festival, including the creative and expressive ones, because the festival generates a platform and gives a space for the works, as well as economic ones because it gives positioning in the artistic field and diffusion to the artist.

Callegenera could be perceived as a shared laboratory for artists, where various expressions, styles, and techniques come together. There is a constant relationship and influence within this space and the conjugation of artistic relationships. The artist ceases to be isolated in the street in terms of identity and surrounds himself with peers: urban artists and writers. In this way, the artistic language is modified in certain cases, when techniques are shared and interpenetrated.

Most of the artists show a positive reaction to Callegenera, as a platform that comes to legitimize, destigmatize, and give greater diffusion, despite the fact that there have been censorship events during the festival. The struggle to achieve cultural and social capital is still present on the city’s stage. Callegenera also seeks to obtain it, as has been seen in the interventions in the city, which has caused the struggle to continue.

7. Final considerations: New uncertainties?

In short, festivals of this type in direct connection with the growth of metropolitan areas and intermediate cities in Latin America are generating a paradigm shift in terms of our vision as a region, inviting us to question how we can adapt to the new urban standards without losing our identity. The rise of urban art in Latin America in the last decade is largely the product of our society facing this transformation, where the intervention of space is no longer just a rebellious act, but a desperate appropriation of the environment to fight against the homogeneity imposed by modern urbanization.¹¹ We can conclude that Callegenera is considered the largest, longest, and most international festival of its kind in Mexico – it is the only one that covers most of the musical genres, movements, and urban artistic expressions that exist in the city and in the country. This is achieved through its various exhibitions, interventions, and activities.

There is no doubt that the city is the original channel for these expressions, and when analyzing it together with society, it allows us to find a thought, a form of action, cultural, esthetic, and even philosophical norms. The works that appear in the city allow us to identify a social reality, hence the importance of analyzing it from its contexts and in its natural habitat, and above all from a decolonial vision. Urban and street art then becomes a process of appropriation of territory, understood as the

process of interaction of people with the environment,¹² since it is in turn a generator of identity and a social space cathartic. However, this territorial appropriation at the same time can play a role in breaking down borders, as is the case in the city of Tijuana, in the Mexican state of Baja California, where the artist Enrique Chiu painted an 18,000-m mural lake in 2018, squares with countless helpers, migrants from both Mexico and Central and South America, entitled “Mural de la Hermandad,” in which Chiu expresses through art his idea of the annihilation of the border between Mexico and the United States, in favor of a world without barriers or obstacles between humans.¹³

Following the natural course of these works or pieces, production (legal and illegal) and conservation (vandalism, destruction, or conservation), exhibition (public or private open spaces), depending on the origin (graffiti artist, urban and mural artist or institutional sponsor or community), among other variants of analysis in connection with economic, cultural and social capital, turns this urban production into an object of study of interest for sociology, the arts, architecture and philosophy, as well as other disciplines.

It is a complex reality that must be analyzed from an interdisciplinary perspective to know the true impacts that these interventions are capable of causing both for the artist or writer and for the community and the urban context.

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Conflict of interest

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Ethics approval and consent to participate

The artists, in writing and verbally, have given their consent to participate in the interview.

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The artists have given their consent to incorporate their information and opinions in this paper.

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ARTICLE

Copyright protection for AI-generated works: A comparative review of international and Vietnamese laws

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Abstract

Artificial intelligence (AI) is increasingly driving significant advancements in technology and business, impacting a wide range of industries and nearly every aspect of creativity. The growth of AI is fueled by the availability of vast amounts of training data and advancements in affordable, high-performance computing. Since its inception, AI and its outstanding development have produced countless works across various genres and fields, achieving remarkable feats and unlocking vast potential for further exploitation. This phenomenon raises the question of authorship and whether protection mechanisms should be established for AI-generated works. Granting copyright protection to AI-generated works would challenge long-established notions of copyright, which have traditionally been reserved for human creations. This paper reviews the legal approaches and perspectives of leading AI-driven countries, offering an overview of the challenges associated with granting protection for AI-generated works. Moreover, the paper examines Vietnam's international commitments and analyzes the potential for supporting AI-generated works within its legal framework. Based on this analysis, the paper proposes potential solutions to improve legal rules for copyright protection of AI-generated creations.

Keywords: Artificial intelligence; Copyright; Intellectual property rights; Vietnam

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1. Introduction

Since its inception, artificial intelligence (AI) has undergone remarkable development, producing countless works across various genres and fields of life. These works range from art, such as (i) the 2016 computer-generated artwork *The Next Rembrandt* created in the Netherlands, and (ii) *The AI Love Song*,¹ developed by Nguyen Hoang Bao Dai, an information technology engineer from Vietnam, which was composed by AI at a rate of 10 melodies per second, to technological innovations that, on release, have caused a sensation in the market and even significantly influenced perceptions of the “human work/element” in creation. A prime example of this is the ChatGPT software application developed by OpenAI. For the first time in human history, AI has performed tasks traditionally reserved for humans, producing outputs that are astonishing even to experts.

Given these remarkable achievements and the limitless potential for future exploitation, AI-generated works have the capability to reshape the world in the

near future. This raises a critical question: who will own these works, or, more specifically, who will own the boundless potential they represent? This question is of immense importance, as the owner of these works will be entitled to substantial economic benefits stemming from the economic rights associated with AI-generated creations.

However, copyright protection for AI-generated works faces several challenges: (i) patent protection offers stronger safeguards than copyright protection; (ii) AI's legal status remains unrecognized; (iii) the originality of AI-generated works is often unproven; and (iv) recognizing authorship remains a complex issue.

1.1. Concept of copyright protection for AI-generated works

Copyright protection, as understood in many countries, refers to the protection of the expression of original literary, dramatic, musical, or artistic works, granting creators control over the exploitation, reproduction, adaptation, and publication of these works.

According to the English Oxford Living Dictionary, AI is “the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.”² In addition, some scholars offer their own definitions of AI, such as “the automation of activities in accordance with human thinking” or “the field of science studying how computers can do things that humans can still do better than computers.”³ In general, AI is a field of science that involves a collection of technological algorithms designed to simulate the way humans use their bodies and nervous systems to feel, learn, reason, and act. The goal is to reach a level where machines can independently and accurately solve problems. AI-generated works can be understood as the finished products of this process of simulation.

From the above definitions, a general definition of copyright protection for AI-generated works can be outlined. Copyright protection for AI-generated works refers to the protection of rights typically reserved for authors, who are owners of works created by “*computer systems able to perform tasks normally requiring human intelligence*,”² otherwise known as AI.

Thus, based on the definition provided, the concept of copyright protection for AI-generated works revolves around two main issues: (i) identifying the author of the works created by AI, and (ii) recognizing that AI-generated works are eligible for copyright protection.

1.2. Significance of copyright protection for AI-generated works

AI-powered devices are already capable of producing original creative independently. In other words, human beings no longer have a monopoly on creative activities that result in the creation of new and original works. As the use of AI by artists becomes more widespread and as machines continue to improve in their ability to produce creative works, the line between artwork created by humans and that created by computers is increasingly blurred.⁴ Consequently, this raises the question of whether current copyright law is prepared to address a new reality in which creative works are produced not just by humans but also by intelligent machines.

The law must not overlook AI's creative potential. A clear and unambiguous legal framework is necessary to address AI-generated works in a way that stimulates innovation in the field of AI and its creative application. Given these considerations, it is vital to investigate all potential avenues for copyright protection for AI-generated works.

1.3. Controversies regarding copyright protection for AI-generated works

Several scholars have expressed their dissatisfaction with including AI-generated works within the copyright framework. Their primary criticism is that non-human authorship should not be recognized in the context of copyright, and specifically, that the Berne Convention (BC) does not, and should not, accommodate this notion.

Ricketson rejected “copyright objectives based on a commercial value rather than the protection of the fruits of human authorship.”⁵ He argued that such an approach would strip copyright of its essence, given the humanist nature of the BC and the notion of human authorship it embodies¹. According to Ricketson, there are several compelling reasons in favor of human authorship. First, he asserted that authorship recognition is a fundamental human right for the creator of a work. The idea of reserving authorship for humans not only affirms core human values but also serves as a “welcome reminder of human individuality and uniqueness.” In his view, the solution is to exclude computer-generated works, including AI-generated works, from the BC, instead granting them a tailored legal regime that offers a manageable level of authorship protection within the framework of the BC. Samuelson similarly argued that programs should not be rewarded for producing output and that the purpose of the

¹ Ginsburg⁵. The latter concept advocates for the expulsion of human authorship, and, given the humanist nature of the Berne's Convention, such a move would strip copyright of its “soul.”

intellectual property system is to grant rights to human creators, encouraging creativity and innovation.⁶

As a result, the majority of the criticism against authorial recognition is grounded in the belief that “non-human authorship” should not exist.⁷ However, these critics do not suggest that AI-generated works should remain unprotected. The prevailing view is that a *sui generis* approach would be the most appropriate solution.

Thus, there remains potential for protecting AI-generated works under copyright. Davies argued that AI is more than a mere tool and continues to evolve, meaning that current law provisions may be insufficient to govern the new works created by AI as it advances.⁸ China made a significant move in this direction, granting copyright protection to an AI-generated text, which surprised the global community.^{3,9}

2. Analytical approach to literature and other source materials on copyright law

The paper primarily adopts a traditional legal research method (doctrinal research), focusing on analysis, synthesis, and comparative approaches.

To determine how recent legal frameworks address the controversy surrounding AI-generated works, the current work studied international treaties, national laws, and precedents as key source materials. In addition, academic articles and other relevant sources provided important information that helped achieve the paper’s objectives.

Specifically, this paper reviewed the regulations on copyright protection for AI-generated works, starting with

international treaties to which Vietnam is a member state, such as the BC, the Agreement on Trade-Related Aspects of Intellectual Property Rights, the European Union–Vietnam Free Trade Agreement, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the World Intellectual Property Organization (WIPO) Copyright Treaty. This work also reviewed the laws of the United States and the United Kingdom – two countries with the most relevant regulations on copyright for AI-generated works. Precedents were also considered to clarify and contextualize the viewpoints reflected in recent legal frameworks regarding copyright protection for AI-generated works. A comparative examination of Vietnam’s copyright law was also conducted. This comparison provides insights into how Vietnam’s current approach differs from global trends, serving as a foundation for synthesizing potential solutions moving forward.

3. Analysis outcome and discussion on Vietnamese and global trends in copyright laws

Through the review process employing doctrinal research methodology, the paper has identified key insights and trends.

3.1. Copyright protection rather than patent protection

At present, there are two approaches to intellectual property rights protection for works created by AI: patent protection and copyright protection. The trend of protecting AI-generated works through patent rights is gaining more support due to its perceived advantages over copyright protection.

However, meeting the requirements for patent protection poses significant challenges for AI-generated works. One key requirement for patent protection is that “the work” must demonstrate “novelty.” According to WIPO, novelty is defined as the requirement that “the invention must show some new characteristic that is not known in the body of knowledge that existed before the filing date (or the priority date).” This body of knowledge is referred to as “prior art.”¹⁰ Thus, when assessing whether an invention is novel, it is necessary to examine whether the foundational materials used to create the invention are already widely known to the public and exist as prior art. In the case of AI-generated works, the process of creation begins either with the operator entering input data into the AI system, from which the AI automatically synthesizes a new work, or with the AI itself, utilizing machine learning, accessing, and processing vast amounts of publicly available data from the internet.

² Davies⁸. Introduction:.... The modern artificial intelligent computer is substantially more than a tool and accordingly those provisions are no longer valid. Alternatives need to be considered....

³ Shenzhen Tencent Computer. Sys. Co. v. Shanghai Yingxun Tech. Co.⁹ In Shenzhen Tencent v. Shanghai Yingxun, the Court ruled that the content generated by Dreamwriter software constituted a written work. However, it did not depart from the general legal principle that a work must result from the author’s intellectual creation. To justify that the AI-generated content qualified as a work, the Court emphasized that the article in question was produced by the creative team of the plaintiff Shenzhen Tencent using Dreamwriter software. The team’s intellectual activities, such as selecting data inputs, setting trigger conditions, and choosing templates and corpus styles, were directly linked to the article’s specific expression. The presentation of the article reflected the creative choices and arrangements made by the plaintiff’s team, demonstrating a degree of originality that qualified the work for protection under China’s copyright law.

As a result, when considering the characteristics of the work, there are likely similarities with prior art, particularly with the input data used by the AI being publicly available. While the AI's output may be unique in expression, the underlying idea or presentation of the work may not be new, as it is based on data and concepts already known to the general public. Since patent protection is primarily concerned with protecting novel ideas and inventions, works created by AI are unlikely to meet the "novelty" criterion required for patent protection.

The advantages of patent protection are therefore rendered ineffective if AI-generated works cannot meet the necessary criteria. Copyright protection, on the other hand, addresses this issue by focusing solely on the expression of the work rather than the underlying idea. AI can freely use any available data sources, as long as the resulting work is unique and demonstrates originality in its expression.

3.2. Support for copyright protection of AI-generated works in current legal frameworks

Current legal frameworks, including international treaties to which Vietnam is a member state and the laws of the countries reviewed in this paper, reflect a vision that supports the establishment of a protection mechanism for AI-generated works in the future. These frameworks embody a modern, progressive outlook that recognizes the need for the law must adapt to technological advancements, such as AI.

First, regarding international treaties to which Vietnam is a member state, it must be noted that these treaties do not include specific provisions for the copyright protection of AI-generated works. However, they do represent the collective vision of legislators and member states on technological progress, socio-economic development, and the future trajectory of technology application. This vision is evident in how these treaties progressively expand the scope of protection and demand higher levels of protection to keep pace with continuous technological advancements, particularly in the realm of AI.

The BC of 1971 introduced a broad concept of literary and artistic works eligible for copyright protection. In the first line of Article 2(1),¹¹ the BC provides a general definition of what qualifies as "literary and artistic works," stating that "*the expression "literary and artistic works" shall include every production in the literary, scientific, and artistic domain, whatever may be the mode or form of its expression...*" This phrase, "*whatever may be the mode or form of its expression*" opens the possibility for works created through AI to be considered as literary and artistic works under the BC. By offering such a wide definition of "literary and artistic works," the BC expands

the scope of protection, setting a precedent for future types of works – such as those created by AI – to be eligible for copyright protection. Thus, it is reasonable to argue that AI-generated works could qualify as literary works protected under the BC.

In addition, international treaties aim to promote technological innovation and facilitate the transfer and dissemination of technology. This reflects the legislative intent that the protection of intellectual property rights, particularly copyright, should align with the advancement of science and technology and the broader socio-economic development.

For the laws of the countries reviewed in this paper, in the United States, the Copyright Law has traditionally been understood as protecting the products of human intellectual labor and the creative output of individuals. The United States Copyright Office has stated that "*it will only grant copyright registration for works that are the result of human activity*"^{4,5,12} By adhering to this principle, works generated by AI are not recognized for copyright protection in the United States, meaning such works are effectively placed in the "public domain." Specifically, according to the guidelines of the United States Copyright Office, a work is eligible for copyright protection only if it is the result of intellectual labor that involves creative capacity – something that is inherently a human endeavor. Consequently, any work that is determined not to be human-made will be denied protection^{6,13} Similarly, the Office also denies protection to works created by machines, especially those produced randomly or automatically, without any creative intervention from humans⁷.

However, the Digital Millennium Copyright Act (DMCA) of 1998 predates the current debates surrounding

⁴ Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence¹². In the 1973 edition of the Copyright Office's *Compendium of Copyright Office Practices*, the Office cautioned that it would not register materials that did not "owe their origin to a human agent."

⁵ Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence¹². If a work's traditional elements of authorship are produced by a machine, the work lacks human authorship, and the Office will not register it.

⁶ U.S Copyright Office¹³. Because copyright law is limited to "original intellectual conceptions of the author," the Office will refuse to register a claim if it determines that a human being did not create the work.

⁷ U.S Copyright Office¹³. Similarly, the Office will not register works produced by a machine or by a mere mechanical process that operates randomly or automatically, without any creative input or intervention from a human author.

AI and copyright. The DMCA places limits on service providers' practices related to transitory communications and system caching. Specifically, if a service provider "merely acts as a data conduit, transmitting digital information from one point of a network to another at someone else's request,"⁸ then the provider is limited in its ability to interfere with or gain access to that digital information.⁹ In addition, if a service provider is liable "for the practice of retaining copies, for a limited time, of material that has been made available online by a person other than the provider, and then transmitting it to a subscriber at his or her direction,"¹⁰ then the service provider is only permitted to "retain the material (copy(ies) provided by the person who requested) so that subsequent requests for the same material can be fulfilled by transmitting the retained copy, rather than retrieving the material from the original source on the network"¹¹. Thus, the provisions of the DMCA, together with Title II – "Online Copyright Infringement Liability Limitation" – suggests that United States lawmakers implicitly acknowledge the existence of copyright in cyberspace. In other words, "material" or "digital information" in cyberspace is recognized as being subjected to copyright. In addition, the title "Online Copyright Infringement Liability Limitation" reflects the legislators' intention to create a mechanism for protecting works in the online environment from infringement. This effort may provide a foundation for copyright protection of works created by AI, as these works are predominantly created in cyberspace.

In the United Kingdom, the intellectual property law system grants copyright to programmers who create AI programs. The concept of copyright protection for works created by computers was addressed early on, specifically in the Copyright, Design and Patent Act 1988 (CDPA). Under the CDPA, a computer-generated work is defined as "the work is generated by a computer in circumstances such that there is no human author of the work" (Article 178 of the CDPA 1988).¹⁵ This clarification provides a foundation for addressing copyright claims for works generated by AI. The United Kingdom's approach to copyright is relatively progressive, as it makes an exception to recognize works created by a category of "authors" who are not human. However, it is important to note that the European Union has expressed an intention to adopt a *sui generis* protection

regime. This differs from a special protection regime in that a "special computer-generated works" regime does not necessarily involve a new or distinct type of protection. To accommodate works created by AI, special protection under copyright law may only require adaptations to the existing framework, such as revising the requirements for protection and determining who should hold the rights. Article 7 of the European Database Directive,¹⁶ which provides protection for databases without the need for a creative process typically attributed to human authors, serves as an example of *sui generis* protection. In contrast, the protection of computer-generated works under the United Kingdom's CDPA constitutes a special regime.

In Vietnam, the 2005 Law on Intellectual Property does not have any regulations on copyright protection for AI-generated works. Under the current law, Vietnam recognizes organizations or individuals as copyright holders,¹⁷ and entities such as computers, robots, or AI cannot be considered as copyright holders. Compared to the laws of the United States or the United Kingdom, Vietnam's Law on Intellectual Property does not yet address the issue of AI-generated works. This gap is primarily due to the 2005 Law on Intellectual Property (amended and supplemented in 2009) and its associated regulations, which lack clear and unified definitions for the concepts of "works" and "authors" and "human contribution" to the creation of a work.

First, the Vietnam Law defines a "work" as "a creation of the mind in the literary, artistic or scientific domain, whatever may be the mode or form of its expression."¹² This definition refers to the "creation" itself but does not specify whether a distinct human imprint is required to establish its originality. As currently framed, this provision implies that non-human creations could also be eligible for protection under copyright law. Although the provision can be further clarified by stating that "the protected work, must be created personally by authors through their intellectual labor without copying others' works,"¹³ it still does not address the need for a personal human imprint (distinctive trait) in the work. The phrase "intellectual labor" does not explicitly require such a distinctive trait, especially when compared with the requirements in foreign laws, as discussed in previous sections.

In addition, the concept of an "author" is specified in the 2022 Law amending and supplementing certain articles of the Law on Intellectual Property: "An author means a person who directly creates a work."¹⁸ If this definition is

⁸ *Limitation for Transitory Communications*, The Digital Millennium Copyright Act of 1998, pg.10.

⁹ *Limitation for Transitory Communications*, The Digital Millennium Copyright Act of 1998, pg.10.

¹⁰ *Limitation for System Caching*, The Digital Millennium Copyright Act of 1998, pg.10.

¹¹ *Limitation for System Caching*, The Digital Millennium Copyright Act of 1998, pg.11.

¹² Clause 7, Article 4 of the Vietnam Law on Intellectual Property 2005.

¹³ Clause 3, Article 14 of the Viet Nam Law on Intellectual Property 2005

followed, it suggests that the provision recognizes only humans as authors, even though the term “create” is used in a broad sense. This provision illustrates inconsistency in the Vietnamese law when it comes to AI-generated works. If a work can be created without a human author, there is no clear basis for determining the author of the work, and, consequently, its protection under copyright law.

The issue of intellectual property rights for AI-generated works is therefore creating legal challenges. According to current Vietnamese law, intellectual property rights can only be imposed on human-created works. These challenges are particularly significant when addressing disputes concerning the infringement of intellectual property rights in works created by AI or when AI itself is accused of infringing other’s intellectual property.

However, the idea of protecting intellectual property in the online environment is not new in Vietnamese law. In the context of the technological advancement driven by the Fourth Industrial Revolution, most transactions today now take place in cyberspace. From small, self-managed transactions to larger contracts governed by the 2005 Electronic Transactions Law, the Law already addresses digital transactions in Vietnam. Chapter IV of the 2005 Electronic Transactions Law focuses on security, safety, protection, and confidentiality in electronic transactions, ensuring the protection of data messages and outlining the responsibilities of network service providers and related organizations, as required by competent state agencies.

At present, the Ministry of Information and Communications is finalizing a draft law to replace the 2005 Law on Electronic Transactions to better address changes in the volume and rapid growth of online transactions. Accordingly, the revised draft law emphasizes the issue of safety in electronic transactions, as reflected in more detailed regulations on this matter. Chapter IX of the draft is titled “Data Safety and Network Information Security in Electronic Transactions” and is divided into two sections: Data Safety and Network Information Security. One article regulates the responsibilities of internet service providers, digital data centers, and digital platforms, specifically stating: “*Coordinating with relevant agencies in arranging premises and connection ports, and implementing necessary professional measures; developing management regulations and technical measures to prevent and block the use of services that spread data messages with content inconsistent with the nation’s cultural and ethical traditions, harm national security, disrupt social order and safety, or violate other provisions of law.*”¹⁹ The additional regulation on Cyberspace Information Security in the draft, an issue not addressed in the 2005 Law on Electronic Transactions, aligns with the 2015 Law on Cyber Information Security.

This law governs activities related to network information security, aiming to protect information and information systems on the network from unauthorized access, use, disclosure, interruption, modification, or destruction, to ensure the integrity, confidentiality, integrity, and availability of information (excluding national security-critical information systems, which are governed by the Cybersecurity Law).

Although current Vietnamese law does not specifically address copyright protection for AI-generated works, the government’s recognition of the need for protective mechanisms in cyberspace, particularly in the context of digital transformation, has led to actions such as the drafting of laws that adapt to the rapid changes of technology. As a result, it is likely that future Vietnamese legislation will include a protection mechanism for AI in general, and for the copyright protection of works created by AI in particular.

4. Recommendations regarding Vietnamese intellectual property law

Based on the current challenges and global approaches to identifying copyright protection for AI-generated works, this paper proposes a set of recommendations aimed at accommodating and improving the legal framework on this issue, both in general and specifically for Vietnam.

4.1. AI-generated works as a subject matter of copyright protection

To be eligible for copyright protection, works created by AI must meet the minimum requirements for creativity and originality. There are two key factors in evaluating the originality of a work: (i) the creative process involved, and (ii) the distinctive traits that make the work unique. To determine whether an AI-generated work qualifies for copyright, it is important to compare the creative processes of humans and AI.

First, both human and AI creative processes require a source of material for creation. This material can be considered a common societal resource, available for exploitation by anyone, and includes ideas, themes, cultural products, and other materials from nature or society. For example, in the case of literary works, the first source material is vocabulary; for musical works, it is chords, and so on. When humans create works, they select the material for their compositions, while in the case of AI, it is the programmers who select and provide the input data for the machine.

Second, both processes require tools for expressing the work, such as language, sound, images, and colors. These tools are often associated with the materials that

carry them, such as fabric for painting, paper for printing, or sound waves and electromagnetic waves for radio and television. Humans choose the tools to express their creative ideas, whereas AI users or operators select the “tools” for the machine to express the work.

Third, the process of creation itself differs. Based on the chosen materials and tools, the creator – whether human or AI – imprints their personal touch on the work, which expresses their thoughts, feelings, and ideas. While the general sources of material and the tools for expression can be considered “free materials” that are not subjected to copyright protection, the particular arrangement or combination of materials used by the creator is subjected to copyright protection. For example, in a painting, the unique combination of lines, colors, and compositions is what makes it original. In human-created works, the creator expresses their thoughts, concepts, and emotions through their chosen medium. For AI-generated works, the computers replace the human creators by learning from input data, selecting and processing information, and making decisions about the creation of the works. Although the creative processes differ, both human and AI-generated works can result in original and creative outputs. The primary distinction lies in whether the product is the result of human or AI involvement.

4.2. Recognizing AI as a copyright holder

In the current context of the Fourth Industrial Revolution, with the increasing prevalence of “intelligent autonomous robots,” the question has arisen as to whether robots should be recognized as subjects of legal relations. In 2017, Saudi Arabia became the first country in the world to grant citizenship to a humanoid robot with AI.²⁰ This development suggests that, if the Fourth Industrial Revolution leads to significant legal reforms – including the granting of “electronic person” legal status to intelligent robots – Copyright Law, in addition to empowering “natural” persons, will also need to consider attributing copyright to AI when it creates works. The rationale behind this proposal is to make an exception for works created by programs, even if they are entirely machine-generated.⁴

4.3. Amendment and supplement to Vietnam’s intellectual property law

For Vietnam, this paper proposes the following recommendations to better align its intellectual property law: (i) clarifying the concept of “work” to better define the condition of the originality required for protection, and (ii) introducing the concept of “author” and related provisions that focuses on protecting only those works that reflect a decisive human impact.

5. Conclusion

AI has made significant strides in the technological development process. To this day, AI continues to evolve, contributing to the advancement of various sectors of society, including the creative industry. The increasing production of high-quality AI-generated works, with potential for exploitation, makes the issue of protecting these works even more important. However, granting copyright protection to AI-generated works presents a long and challenging journey. It requires substantial changes to current intellectual property law, not only to support the copyright protection of works created by AI but also to anticipate and adapt to ongoing technological advancements. This shift will also compel society to reconsider its understanding of creativity, acknowledging that creativity is no longer solely a human attribute.

This paper has outlined the reasons for opting for copyright protection over patent protection for AI-generated works. A comparison of the current legal frameworks in international treaties to which Vietnam is a member state, along with those in foreign jurisdictions such as the United States and the United Kingdom, highlights the different approaches to copyright protection for AI-generated works and provides a clearer perspective on the matter when compared to Vietnamese law.

The paper has also proposed recommendations for both international and Vietnamese lawmakers to consider as a foundation for recognizing copyright protection for works created by AI.

Regarding general proposals, given that international law currently only recognizes copyright for works created by humans, which must involve a “creative work process,” we suggest an alternative approach. This approach would involve including AI-generated works as a subject matter for copyright protection, based on evidence of similarities in the “creative work process” between human-created works and those created by AI, thereby recognizing their creativity. In addition, the paper advocates for granting legal status to AI in the form of an “electronic person,” drawing on Saudi Arabia’s pioneering initiative in 2017.

For Vietnam, the paper recommends revising the provisions on copyright in the 2005 Intellectual Property Law in two key ways: (i) Refining the definition of a “work” by more clearly articulating the “creation” element and addressing the legal stance on the creativity of non-human-made works, and (ii) amending the concept of “author” to reflect the degree of human involvement in the creation of the work, thereby clarifying the legislator’s stance on non-human authors as discussed earlier.

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¹⁴ We note that the reference 7 can be shortened to this article only since the idea of “non- human authorship should not exist” has been expressed by Grimmelmann through his article. Grimmelmann states that no one has ever exhibited a work that could be a computer authored work (CGWs) in the sense of the Copyright act. In his article, he states that there are five reasons as to why CGWs are completely different than human-generated works. According to him, CGWs are the response to the question as to whom should be considered as the author of a CGW.

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ARTICLE

The role of artificial intelligence in art

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Abstract

Artificial intelligence (AI) has emerged as a significant influence in the art world, prompting reflection and introspection. This phenomenon raises the question: how could this have happened? This article explores the interrelation between AI-generated art and the concept of artwork's aura, particularly in how art profoundly engages with otherness. The inquiry into whether AI relates to otherness is central to this discussion. The research methodology employed in this study combines scholarly research and literature review with the author's personal experiences in painting, artistic observation, and experimentation with various art techniques. The methods used include descriptive analysis, classification, observation, and interpretive analysis of examples of AI-generated images. The conclusion drawn from this investigation is that AI-assisted works cannot be considered art as long as AI simulates the language of other artistic media.

Keywords: Jacques Derrida; Art; Otherness; Aura of artwork; Artificial intelligence; Contemporary art

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1. Introduction

This article explored the relationship between the aura of original artworks and those generated by artificial intelligence (AI), focusing on the concept of otherness. The main concern is understanding the circumstances that led to the integration of AI in art.

The paper aims to highlight the significance of an artwork's aura and the negative effects of undervaluing its worth.

In the contemporary context, conceptualism in art often takes precedence over the artwork's aura, leading to a degree of rationalization in the arts. This rationalization occurs when artistic creations separate form from content. Art is inherently tied to the medium in which it is created; for example, a painting produces an experience whose content cannot be disentangled from the medium used to realize it. This painterly realization embodies artistic truth, not conceptual knowledge. The form (corporeality of artwork) gives rise to the content (reference), and no content is predetermined; rather, the form establishes it. Since the content of a painting can only be expressed by its concrete corporeality, it involves the simultaneity of matter, form, and content. Martin Dixon describes this interplay as an oscillation between the artwork's corporeality and its reference (e.g., aura).¹ However, when the form is separated from the content in artistic creation, this oscillation ceases, and the aura is lost. As a result, the value of the artwork is determined by its concept, idea, and information, suggesting that the

artwork's creation merely serves to support these elements. AI serves as a radical example to discuss the consequences of rationalization in art.

Can AI be used as a tool for artists to produce art? Before analyzing AI-generated images, it is essential to consider the conceptual differences between AI-generated images and AI-generated art. Given that art involves a dynamic interplay between form and content, between reference and corporality, it is questioned if AI-derived images can contribute to the process of creating an artwork, considering that AI can only simulate the effect of corporality.

Art produced by AI would suggest that AI is an author or co-author, but this is not feasible. AI cannot establish the kind of relationship with otherness that is essential for artistic creations. Only humans can engage in such a relationship, which is fundamental to art. Therefore, while AI can be used by artists to create art, it cannot be considered as the author or co-author of an artwork. This limitation also prevents AI from creating a novelty (*novum*), a concept that will be explored further in this paper.

The primary concepts examined in this paper include the aura of an artwork, AI technology, the concept of otherness, and the concept of novelty (*novum*) in art. However, there are certain epistemological limitations to defining the term "aura." One challenge is that it cannot be precisely and positively defined; instead, it is often described using negative terms and an apophatic approach. According to Janu Mieszkowski, the aura – which is characterized as unapproachable incarnate – challenges the traditional experience of authenticity and its relationship with the viewer. Robert Kaufman defines aura as the trace presence of something no longer literally or physically present but still shimmering, conjuring otherness, and simultaneously attracting and repelling us.² In exploring the concept of aura, the viewpoints of several authors were examined, including Benjamin Walter, Magdalena Zięba, Raúl Rodríguez-Ferrándiz, Reece Gielen, Badry and Lubis, and Martin Dixon. Focusing on Martin Dixon's perspective, which describes the aura of an artwork as an oscillation between the corporality of the artwork and its reference, the subsequent question is posed: if the oscillation between the corporality of the artwork and its reference is essential to art, how can it be generated in AI images that simulate an artwork's corporality? It is important to emphasize the difference between works that simulate corporality (e.g., with the assistance of AI) and those that lack it, such as literature, which is inherently disembodied. Regarding the concept of otherness, the perspectives of Jacques Derrida and Emanuel Levinas were considered. To Adorno's notion

of novelty in art, the perspectives of Boris Groys, Katarina Rukavina, and Lev Manovich were examined.

2. The otherness in the context of an artwork's aura

What about the artwork's aura? Is there any connection to the passage from Mark's Gospel: "His clothes became dazzling white, whiter than anyone in the world could bleach them" (Mark 9:3)? If bleach cannot achieve such an effect, then it suggests this is not a natural occurrence. How does bleach relate to these clothes, and what does it represent in this context? What is the connection between this whiteness and the dresses, as well as the naturalness of the painter's canvas? The whiteness described in the biblical context represents a supernatural or divine transformation, which cannot be achieved naturally through bleach or any other mundane means. Similarly, the aura of an artwork is not an everyday phenomenon. Through Derrida's interpretation of Levinas's concept of otherness, the aura of artwork can be understood to otherness.

Art addresses otherness by creating something that did not exist before. Levinas's concept of otherness, as outlined in "Totality and Infinity," involves a metaphysical desire for the absolute Other,³ where the Other is not reducible to the Same. In this framework, the relationship between the Same and the Other is such that, while the Other communicates with the Same, it remains transcendent and fundamentally beyond the Same's full grasp.⁴ Levinas describes this transcendence, which signifies a relationship with a reality infinitely distant from the self, as metaphysical.⁵ According to Levinas, without such a separation, there would be no possibility of truth, only mere existence. This separation, however, is characterized by a distance that is both insurmountable and surmountable.⁶ Derrida builds upon Levinas's metaphysics of desire, describing it as a surrender to the call of the absolutely irreducible externality of the Other. However, he also emphasizes that desire is not hapless, as it retains its openness and freedom.⁷ The encounter is made possible by the Other, which is unpredictable, and therefore there is no predetermined conception of the Other.⁸

Derrida argues that creation is fundamentally the creation of the Other, and it is only possible through the concept of fatherhood. The relationship between a father and son transcends all categories of logic, ontology, and phenomenology.⁹ Levinas, in Derrida's view, addresses the question of original difference, highlighting that our relationship with the Other – face-to-face, without mediators and unification – stands in opposition to the traditional understanding of logos.¹⁰ The messianic eschatology that inspires Levinas is often interpreted in terms of the most

irreducible aspects of experience, namely, the passage and exit to the Other.¹¹ Art, in a fundamental sense, engages with otherness because it co-creates something that did not exist before. It becomes part of the metaphysical desire for the Other, serving as a co-interlocutor with the absolute. The Other's irreducibility produces the aura of the artwork. This aura, as a fragile phenomenon in a dynamic dialog between presence and otherness, serves as an indicator of the relationship between the artwork and the Other. The subsequent sections will explore how art is a contingent interlocutor with the absolute in the co-creation process, leading to the emergence of the artwork's aura.

3. The aura of the artwork as an indicator of the relationship between contingency and absolute

Merriam-Webster's dictionary defines "aura" as a special quality or feeling that seems to come from a person, place, or thing.¹² To contextualize this concept within the realm of AI-generated art, we will first need to explore aspects of an artwork's aura to gain a more thorough comprehension. These aspects are related to Walter Benjamin's interpretation of originality and reproduction, in which he argues that the aura is lost in reproduction.¹³ According to Magdalena Ziębahe, the art of the past two decades has accelerated and intensified the depletion of the aura. Radical artistic practices have contributed to the erosion of traditional cultural values, as described by Benjamin. This can be seen in the proliferation of silkscreened photographic images in the works of Warhol and Rauschenberg, as well as the industrially manufactured, repetitively structured works of the minimal sculptors. Art appropriation aims to recycle the authenticity of the original while generating new interpretations.¹⁴

Raúl Rodríguez-Ferrándiz notes that, according to Benjamin's interpretation, an aura is an authentic appearance of a work of art that manifests in a material capacity within the tradition in which it was created. In reproduction, the properties of the original work are omitted, causing its aura to disappear (aura, according to Benjamin, cannot be reproduced). Rodríguez-Ferrándiz examines the implications in new media and contemporary cultural production, where reproducibility is not degrading but rather a principle of production itself. Consequently, the concept of "original" is lost, as reproduction becomes integral to the art form.¹⁵ He suggests that it is the aura of information that allows digitality to transcend physical form in contemporary artworks, rendering them "immortal." This "immortality" is no longer related to the uniqueness of the original, which traditionally guarantees the authenticity of its copies. Instead, it arises from the multiplication of identical instances, creating a paradoxical

aura based on the reproduction of an infinitely multiplying binary code.¹⁶ To understand what the aura of information is, we must first grasp the general concept of aura. Aura manifests at the irreducibility of the Other, serving as an indicator of a phenomenon where the relationship between presence and otherness, contingency and absolute, flickers. From Rodríguez-Ferrándiz's perspective, cultural objects are not merely objects of thought but also actions and experiments open to further manipulation and co-production. This perspective highlights how cultural experience is no longer restricted to the contemplation of an object; instead, it involves navigating between different points rather than delving deeply into one aspect.¹⁷ This dynamic is exemplified by the Internet, where links lead to other texts, and enjoyment is derived not from contemplation but from creating the product, even if it is temporary.¹⁸ In the context of post-production, Rodríguez-Ferrándiz refers to Nicolas Bourriaud,¹⁹ who believes that the traditional distinctions between production and consumption, creation and copying, have been erased, making concepts such as originality and creations obsolete.²⁰ Artists take information and cultural codes from heritage or everyday life, not creating but programming forms.²¹ The artistic strategy of post-production involves mixing and combining, whereas hyper-production is viewed by Bourriaud as a cultural ecosystem,²² where reality is replaced by montage.²³ In line with Bourriaud's views, Rodríguez-Ferrándiz believes that the target recipient is no longer merely contemplative but also participatory; the consumer is also a post-producer.²⁴ Regarding these interpretations of aura, a certain rationalization of artistic expression is discussed, where the "auratic" activity of the artwork is based on information as a "means" of interchange, compilation, assembly, and co-production. However, in creative discourse, the exact opposite is accurate: as Dixon's example of Warhol's artwork will demonstrate, "information" comes from the aura, with the artwork's form and content operating simultaneously and the "reference" oscillating with the artwork's physicality. Techniques involving the exchange of information, or information itself, are not the source of aura.

Before Dixon's claim, the perspectives of Reece Gielen, A.I. Badry, and A.Y. Lubis regarding the relationship between aura and information or artworks without physicality are noteworthy. Gielen examines the branding process in marketing, arguing that this process is how information "gets" an aura. He relates this procedure to an artwork's aura, suggesting that marketing activities can transform a product (brand) into a kind of idol. Similar to Rodríguez-Ferrándiz, Gielen distinguishes aura from physical attributes by viewing it as a quality of information and the identity associated with the brand.²⁵ In branding,

there is no tangible version; instead, the brand occupies a distinct economic domain denoted by copyright and trademark.²⁶ Gielen points out that the contextualization of a brand can lead to its idolization.²⁷ Works of art in the 21st century behave similarly, existing as both works of art and goods. Consequently, artworks can manifest an aura not only in the artistic sense but also in terms of brand identity.²⁷ Brand identity is analogous to artist identity, serving as a code or style and an indicator of a role within a particular (sub)culture.²⁸ Gielen considers subcultural influence crucial for understanding the concept of auratic activity in this context. In other words, when art became accessible to the working class, the roles within the cultural framework were no longer characterized by hierarchies. As a result, the ritual function of art became dependent on how the working class understood the subcultural context and meanings of the art.²⁹

Badry and Lubis assert that “digital art is not merely a reproduction”.³⁰ They align with John Andrew Fisher’s view that modern technologies have not only expanded established art forms and generated new art ones but also altered the way traditional art forms are experienced. This has potentially diluted the status of the fine arts. When examining this remark within the context of creating art, digital art exhibits distinctiveness and originality, in contrast to Benjamin’s statement regarding machine reproduction. Badry and Lubis claim that the process used to create digital art differs from that of traditional art production or machine reproduction, as it is based on immaterial production. The primary legitimate material required for digital art is a computer with a display to process the content, allowing artwork to exist without physical form.³⁰ However, as will be demonstrated by examples of AI-generated works, these immaterial works often mimic physical forms. According to Badry and Lubis, every new technique or technological advancement used to convey art can have its own uniqueness, provided that originality is not based on aura but rather on the method of production.³¹ This perspective is problematic because it suggests that artistic work is defined by its methodology, yet in art, a method does not guarantee artistic achievement. Badry and Lubis claim that digital art maintains its uniqueness even in the absence of aura due to its immaterial character.³¹ To understand this uniqueness, it is essential to clarify what it entails. Uniqueness in art is not about the quantity of innovative and creative methods used but rather the quality of the artwork, which is recognized as a *novum* in art theory.

The “aura” that arises from cultural exchange and branding, or artworks without physicality, is not characterized by oscillating between form and content.

Instead, it tends to return the attributes to the viewers via cultural exchange or branding in a “deified” version, resembling a presentation or a spectacle. According to Donald Kuspit, the spectacle has supplanted the aura of artistic creation as a form of secular holiness in post-arts society (holiness without the divine).³² There is a clear difference between aura and spectacle; while a spectacle works by projecting certain attributes onto a product, an aura is characterized by a flickering between presence and otherness, an “excess” that is evident yet inexplicable in the work of art. This distinction leads to the conclusion that if the aura cannot be reduced to information and its activity, then the information itself cannot have auratic properties.

Martin Dixon refers to an uncontrollable coincidence during the screen-printing process as a “failure” in reproduction, characterizing it as an auratic excess. Dixon reminds us that technology is often believed to destroy the cultic and auratic aspects of art. However, this holds true only if technology functions and behaves as intended.³³ Technological malfunctions can occur, allowing art to emerge through reproduction. The concept of aura persists in cultural and esthetic philosophy due to its dialectical interaction with technology.³⁴ Benjamin claims that technological reproduction eliminates the aura, but Dixon aims to demonstrate that the aura remains attached to artworks through malfunctions, noise, and distortion inherent in any medium.³⁴ Dixon contends that even if the aura were to be eliminated by technological replication, it would reappear due to technological malfunctions. He illustrates this with Warhol’s work of art;³⁵ a series of monochromatic silkscreens from the mid-60s called *Death and Destruction* (Figure 1), where the main principle of Warhol’s work lies in numbing the viewer to contemporary horrors through repetitive representations. However, as Dixon notes, the repetition in Warhol’s work is never identical due to the technical process of reproduction malfunctions and presentational errors. This creates



Figure 1. Andy Warhol’s *Death and Destruction*. Image used with permission from Gwen Fran via Flickr.

subtle and obvious variations, or textural noise, with the screen-printing technique creating these variations in the reproduction. In this technique, the repeating grid format is not perfectly constructed, leading to variations such as misaligned or overlapping prints. This result in a competition between the information content of the image and the esthetic problems of pattern, color, and shades.³⁶ The viewer's vision oscillates between content and form, reference and surface, unable to integrate these aspects into a cohesive whole. This oscillation fascinates because it draws attention through erroneous repetitions, which Dixon interprets as an auratic flicker or a murmur of consciousness, even thematically a murmur of conscience. Aura, therefore comes from a disconnection between expectation and reality, or a form of failure. Unlike "ideal objects," this type of "defect" and coincidence relates to the relationship between presence and otherness. Specifically, a technical malfunction in Warhol's piece results in an "excess" piece that extends beyond the display itself. Dixon notes this as an oscillation between content and form that cannot be synthesized into wholeness;¹ it cannot be self-identified. This is an event of infinite flickering, which is the aura.

Referring to Derrida,³⁷ it becomes clear that the relation to non-presence is not obscured by the existence of the original impression; rather, non-presence enables the emergence and ever-renewing intactness of the original impression. This relationship also eliminates the possibility of self-identity *per se*. In Warhol's example, self-identity is subverted through technical malfunctions, suggesting a kind of "excess." Non-presence allows for the appearance of this "excess," which lacks a "counterpart" in the pre-existing essence. Instead, it arises from malfunctions and coincidences that contribute to the authenticity of the artwork. The metaphysics of presence fails to account for the potential of coincidence and "excess," which are crucial to the artwork's authenticity. This metaphysics seeks for the artwork to fully express an idea, self-identify, and be recognized in line with ontologically, teleologically, or epistemologically truths. In addition, it aims for the artwork to be a tautology that expresses the essence or reveals the truth as the occurrence of being. However, such subjugation of the artwork is not possible. As it resists self-identification, the artwork conveys otherness – which is elusive, unconquerable, and defies conceptual explanation, granting access to infinity.

If a work of art is not preceded by a given essence, what is it about? There are two possible explanations: either it has to do with original and authentic creativity, or it relates to what Derrida terms as inscription and rewriting, leaving a trace. The idea that there is no foundational essence lies at the heart of Derrida's deconstruction.³⁸ Derrida

claims that history cannot exist without writing because "inscription" is a constant force, and deconstruction begins with the notion that the sign precedes the truth.³⁹ What distinguishes these two options? Why would Derrida's writing and leaving a trace not be considered an original creation? Denying him this would imply that every act of leaving a trace is an original creation, which indeed occurs. However, not every malfunction results in a work of art; some malfunctions degenerate into kitsch, and this difference is recognizable. This is a disagreement with Derrida, highlighting that truth exists in art. If every writing and every trace were an original creation, it would mean that there is no difference between artistic and non-artistic works. As stated previously, co-creation is central to creativity. This thesis is based on the difference between artistic and non-artistic works, implying a criterion of truthfulness and an absolute criterion. An absolute criterion is only possible if there is an absolute. If truth exists in a work of art, it is possible only to the absolute. It appears that we are compelled to associate artwork with a pre-existing essence, which artwork persistently and apophatically avoids. Trapped between essence on one hand and the freedom and openness of inscription on the other, the only resolution is that original creativity is co-creation. Art is creative, i.e., co-creative because it collaborates with the absolute to arrive at a truth that did not exist before the artwork was created. The horizon-opening and "excess"-creating qualities of the artwork, composed of an infinite variety of "faces" of otherness, give it an aura that is ever new.

This text commences with a reference to a passage in the Gospel that describes a particular type of aura or halo. When discussing an aura, or halo, it is the radiance and atmosphere surrounding a person or phenomenon. The "excess" in the artwork appears manifest uniquely, indicating an interaction between form and content that flickers between the corporality of the artwork and its references. This dynamic makes the artwork inherently transgressive and impossible to replicate.

4. AI and the "new" work of art

The concept of aura remained relevant in art theory until the emergence of conceptualism, which shifted focus from aura to ideas and project propositions. Conceptualism in art tends to trivialize or deny the auratic characteristics of the artwork, criticizing the modernist stance from Benjamin to Adorno that an artwork's value lies in its authenticity through human creation. Instead, conceptual art emphasizes production over the artwork itself.⁴⁰ Miško Šuvaković points out that the rise of conceptual art was followed by post-conceptual productions, which transitioned from the literal to the fictional and from the

fictional to the virtual object. These virtual objects were presented as an atmosphere or aura in place of an absent three-dimensional (3D) object.⁴¹

When a reproduction replaces the original, the artwork's depths and auratic flickering are diminished. The reproduction loses some of the original's structure, including its oscillation between the reference and the painting surface, as well as its aura. For instance, a painting loses its painterly qualities, such as depth and plasticity, in reproduction. A painting can only be fully appreciated through the medium in which it was created, a fact often overlooked. The creation of a painting is inextricably linked to the painting process itself, which creates a new, previously non-existent occurrence. This occurrence addresses the characteristics that cannot be separated from its medium of realization in terms of content. This is not conceptual knowledge but a painterly realization of the artistic truth. The form (corporeality of artwork) establishes the content (reference), which is not predetermined or added later. It involves the coexistence of matter, form, and content, where the painting mediums serve as the concrete corporeality that allows the form content to be expressed.

The reproduction of artwork offers information but lacks plasticity, structure, the texture of the painting, the oscillation between the reference and the painting surface, or its aura. Consequently, the artwork is reduced to narrative interpretations that encourage further narrative experiences of artwork. This shift toward a narrative state is characteristic of post-painting, where the artwork's quality lies in its concept, idea, and information. In this understanding, it is believed that the creation of the artwork serves only to support the expression of a concept, idea, content, information, or essence.

How can the use of information (i.e., words and language), in the manner of rationalization, diminish or perhaps eliminate a painting's depth and transform it into a narrative state? What is it about the language damages the painting's aura quality? Language is the product of speech (i.e., expression), and speech is always a relationship. Speech is not only words; it involves real individuals with depths, emotions, gesticulations, and so on. Moreover, often, language is not directed toward speech (i.e., expression) as a relationship (depth), but toward narration (flatness). Since language, in the process of rationalization, can strip away an artwork's depth, what significance does it hold? A word that is both an act of speech and an act of artistic embodiment is creative. It carries the possibility of co-creation, giving birth to new realities and possibilities. When the word ceases to be an act of embodiment and co-creation, it becomes code or law. Without a relationship, language falls into rationalization, transforming words into

objects or codes. What effect does rationalized language have on the painting, and how does it make the artwork's aura disappear? First, the word, as an instrument of ideas, concepts, and narration, was left without speech and relationship, leading to a rationalization of identity and representation. As a result, the painting becomes petrified by this rationalized language.

The decline of language is attributed to appropriation, which involves rationalization and the separation of language from speech and relationships. Language is a function of speech, and speech is characterized by relationships. Even in a monolog, speech exists as a dialog with oneself, where one part of the self speaks to another, illustrating the inherent otherness within oneself. Moreover undiscovered, as the "purpose" is co-creation rather than self-discovery. To be able to co-create, one must be free. There can be no speech where there is no Other/other, because the Other/other (even if I'm other to myself) draws us into speech. Language can be rationalized, "taken off," copied from speech-as-relation, and appropriated as a pattern; to speak technologically, it can be "downloaded" as a stand-alone entity when one forgets that language is a function of speech. Consequently, speech cannot exist without relationships, yet language can exist without relationships, becoming a code or pattern. Since speech in art is based on otherness as a relationship, the separation of language from speech (and thus from otherness) has significant effects on the aura and the use of AI in art.

The issue at hand is that language has become relationless and ceased to operate as speech. This is not about language generating reality or lacking reference (reality) but about language being left without speech due to the absence of relationships (i.e., otherness). Art is profoundly impacted by this loss, as it encourages imitation rather than creation. The effects of rationalized language use are evident in the interaction between AI and artistic creation. For instance, lawsuits against AI by artists are becoming more common. A notable example is a class action lawsuit involving three American artists, Karla Ortiz, Kelly McKernan, and Sarah Andersen.⁴² After these AI systems were trained on the artists' works, the plaintiffs sought to safeguard the artists' copyrights. The lawsuit argues that interpolating existing artwork does not create new works but rather derivative, as pointed out by lawyer and programmer Matthew Butterick.⁴³ If the aura of artwork has become irrelevant by being reduced to information, idea, content, concept, and narrative, then AI uses these features to generate "new" works using parts-as-information from existing artworks. However, these are not new artworks, as pointed out by prosecutor Butterick, but narrative derivatives of old ones. They can also be obtained by imitating styles rather than taking literal segments of an artwork. To illustrate that

works produced by AI are not new artworks, it may be necessary to clarify what constitutes novelty (*novum*) in art.

The concept of novelty (*novum*) in art has gained prominence since the mid-19th century. Modern art, unlike earlier esthetics, is associated with the idea that art is a means for creating something new (*novum*).⁴⁴ Theodor W. Adorno asserts that the “new” is a blind spot and emphasizes the lack of knowledge about the abstract nature of novelty in art.⁴⁵ He argues that the concept of the new is more of a negative than an affirmation⁴⁶ and that it holds the potential to be infinite.⁴⁷ The realization of the *novum* occurs when the artist engages with otherness radically. This does not mean that the artist never begins with an idea or concept; rather, it emphasizes that the idea is merely the starting point and will evolve throughout the process, with the final result possibly diverging from the initial conception. For example, the painter is free to decide what to retain and what to overpaint at each step of the painting process.

Boris Groys offers contemporary interpretations of novelty (*novum*). According to Groys, a reproduction is perceived as potentially duplicated from the outset due to its lack of authenticity, rendering it placeless, virtual, and ahistorical. Groys suggests that Benjamin’s distinction between an original and a reproduction not only allows for the possibility of creating a reproduction from an original but also for creating an original from a reproduction. This is exemplified when all documents in the installation, despite being placeless, virtual, and ahistorical, become originals.⁴⁸ Rukavina points out that Groys’ thought is significant for understanding the concept of creativity in the context of contemporary art. However, Groys’ explanation of how an original can emerge from a reproduction does not resolve the problem of novelty (*novum*) in art, which remains an unexplained value.⁴⁹

Lev Manovich states that the term “new” re-emerged in the 1990s, shifting from being associated with specific media, such as print, cinema, or photography, to being linked with the media in general. This led to the emergence of the term “new media” emerged as a result, which colloquially referred to new cultural forms distributed through digital computers, such as computer games, websites, compact disk read-only memory, and digital versatile disk-read only memory, hypertext, and hypermedia apps. This phrase also conveyed a sense of radical cultural innovation.⁵⁰ However, according to Manovich, new media is still rooted in old media in terms of cultural languages.⁵¹ The computer seems to have reinforced pre-existing forms rather than catalyzing the emergence of new ones. Manovich questions how to interpret the lack of radically new forms in a culture that is rapidly and extensively computerizing.⁵²

Consequently, 3D computer imaging imitates the look of classical cinema, complete with film grain, computer-based virtual spaces usually look like something which was already built in reality, flash animations on the web imitate old video graphics, and the web itself combines the layouts of pre-computer print media with moving images, which follow the already established conventions of film and television, and so on.⁵³

Lev Manovich observes that new media produced by computers is designed to resemble old media. The avant-garde of today is characterized by the methods of media access, manipulation, and analysis methods based on computer technology. While the ways these forms can be used vary greatly, the forms themselves remain consistent.⁵³ Manovich notes that we transition from the new visions, typographies, and architectures of the 1920s to the new media of the 1990s. This shift is exemplified by moving from “a man with a movie camera” to a user equipped with a search engine, image analysis, and visualization programs. Furthermore, cinema, once the technology of seeing, is replaced by the computer, which serves as the technology of memory. This evolution transforms the avant-garde into software, transitioning from defamiliarization to information design.⁵⁴

Harold Cohen’s work highlights that machines’ creative potential lies in their unique partnerships with humans rather than in their inherent artistic abilities.⁵⁵ This perspective is echoed in the experiments of artist Leonel Moura, who, during the late 1990s and early 2000s, experimented with robotic art and AI. Moura developed mobile robots that draw shapes based on color density, drawing inspiration from a tradition of artists who have sought to separate esthetic judgments from personal knowledge and narrow preferences.⁵⁶ In modern art history, there are several instances of accidental creations, coincidental finds, and unintentional procedures.⁵⁶ It is significant to note that Moura does not care if his artwork is created by machines or not as long as it is approved by the art world’s gatekeepers.⁵⁶

These observations raise the question of whether *novum* in art is a qualitative or quantitative characteristic. The distinction between *novum* and added actuality is essential for understanding whether AI can create *novum*. *Novum* is a qualitative value, contrasting with narrativeness, which relies more on adding “actualities” than on oscillating between artwork’s corporality and reference. Narrativeness facilitated the method of computer-generated “artworks” because this type of rationalized language can exist without speech. It operates with the artwork’s parts-as-information. In cases of narrativity, the “novelty” of the work is

achieved through the sequence of actualities, resulting in a mathematically linear “opened infinity” that inhibits the artwork’s dynamic completeness. Narrativeness is more about the “staticity” of the artwork’s narrative components multiplied than about dynamics. To explore these concepts further, one AI-generated item: *Théâtre D’opéra Spatial* by Jason M. Allen via Midjourney (Figure 2) will be examined.

Jason Allen earned the blue ribbon for his piece *Théâtre D’opéra Spatial* in the fair’s competition for digital artists. This made it one of the first pieces created using AI to receive such recognition, provoking vehement criticism from other artists who accused him of infringement.⁵⁷ Allen claimed that he had been transparent about the origins of his work, submitting under the name “Jason M. Allen via Midjourney”.⁵⁷ Many artists became anxious, questioning why anyone should pay for art if it can be generated by anyone using AI tools.⁵⁷ The use of AI tools in art has provoked intense dialogs about ethics and has been criticized by some as a form of high-tech plagiarism, as it relies on ingesting and reinterpreting existing artworks.⁵⁷

The *Faceless Portraits Transcending Time* exhibition, hosted at the HG Contemporary Gallery in Chelsea, the center of New York’s contemporary art scene, featured entirely computer-generated prints.⁵⁸ The catalog describes the exhibition as a collaboration between its creator, Ahmed Elgammal, and an AI named AICAN. According to HG Contemporary, it is the first solo gallery exhibition dedicated to an “AI artist”.⁵⁸

What is problematic about these AI-generated pieces in terms of art? AI tools do not begin with otherness but with specified variables that imitate particular painting languages and styles. By imitating the painting’s surface, both examples imitate the specifics of the painting medium, which is an imitation of language without speech. The first example (Jason M. Allen via Midjourney,



Figure 2. Jason M. Allen via Midjourney, *Théâtre D’opéra Spatial*, 2022. Image used with permission from Wikimedia Commons.

Théâtre D’opéra Spatial) mimics the Modern Style (art nouveau) and “impasto” painting effects. The second example, *Faceless Portraits Transcending Time* by Ahmed Elgammal through AICAN, compiles the styles of Frank Auerbach and Francis Bacon. However, Auerbach’s paintings are characterized by a synesthetic appearance of the physical sensation of touching someone’s face in the dark. Is it possible for AI to simulate this sensation (which is an integration of both the physical and mental aspects of the human experience) without tangible and material properties? Even if it were possible, would it be radically encountering otherness, as AI only simulates it without a real relationship to otherness? As such, it becomes apparent that AI gathers and processes only an artwork’s narrative – not its relationship with otherness – compiling, modifying, quoting, and reassembling it. In the context of art, kitsch often manifests as falsehood through manipulation of the artwork’s structure and artistic medium. Gustav Pazaurek was one of the earliest writers to discuss how kitsch arises from the misuse of artistic materials.⁵⁹ Kitsch commonly mimics the tangible aspects of art through narrative elements. Hermann Broch asserts that kitsch can mimic any artistic system.⁶⁰ A prior artistic critic would likely categorize this AI-created work as kitsch due to its deceptive relationship between corporality and reference (form matter and content). This categorization does not include artworks that intentionally employ kitsch, such as those created by Jeff Koons. The artistic material employed by Jeff Koons is not mishandled; rather, it is well suited to the reference.

Like prosecutor Butterick, it can be concluded that AI-generated items are not new works of art. Placing AI-generated items next to Warhol’s artwork demonstrates the distinction between artwork and non-artwork. Warhol authentically handled artistic matter – the oscillation between the work’s corporeality and reference – by contrasting his creations with those generated by AI, revealing that the latter lack this oscillation and do not, therefore, produce an aura. Narrativeness has facilitated this kind of AI action using language as a code. Works generated in this manner are artistically expressive; they do not provide artistic speech but offer a wide range of possible narrative interpretations. Going back to the earlier disagreement with Derrida, if art is merely a matter of inscription and rewriting, then AI-generated works are considered new writings (as new artworks), as it does not matter whether the artist or the computer “writes.” However, if there is merit to distinguishing artworks from non-artistic works, then it is not just about writing but about truth and co-creation. Butterick’s lawsuit against AI is based on the claim that interpolating someone else’s artwork does not

create a new artwork but a derivative of the original. For AI to work in this manner and generate “artwork,” the artistic language must be rationalized beforehand. AI cannot capture the aura; it can only control signs or codes from artwork because these are what can be copied, interpolated, compiled, and imitated. This is possible only under the presumption that an artwork’s narrativity, rather than its aura qualities, defines it as artistic.

The overflow of hyper-reality resulting from narrative tends toward increased characterized by “distances,” such as enumerations, hyper-factuality, hyper-production, and hyper-consumption, rather than depth. The logic of narrative drives hyper-reality, hyper-production, and hyper-consumption; lacking awareness of distance or the need for slowing down, nor does it allow for meditative immersion in depth. Since the aura of the artwork is tied to depth rather than the logic of enumeration, it is overlooked in the narrative approach. This happens when language ceases to be speech, becoming an independent code that may be utilized for operations, such as assembly, imitation, copying, and mimicking. Language is thus separated from speech, its closest relation, leading to presentation replacing speech and language mimicking expression-meaning by generating presentation-meaning. Consequently, AI performs a logical series of actions, made feasible by the presumption that an artwork’s narrativity, rather than its aura qualities, defines it as artistic. If language is employed apart from speech, there is no differentiation between work produced by humans and computers. Wherever language ceases to be speech, artists will be “replaced” by AI. However, to distinguish between AI-generated artwork and one made by an artist, one must rely on the aura of the artwork. This suggests that an aura cannot be produced by AI. The significant distinction between conventional artistic materials and AI tools lies in the aura’s ability to oscillate between an artwork’s corporality and reference, a quality AI-generated art cannot achieve. AI works are absolute mimesis, or imitation without remnants; thus, unable to create novelty (*novum*).

As a pure mimetic principle and imitation without remnants, virtuality lacks an aspect of otherness as well as artwork’s aura. In conclusion, AI could only control signs or codes, not the aura of an artwork, which it cannot simulate.

5. Conclusion

Vilém Flusser contends that contemporary society has established distinct boundaries between the domains of art and technology. The two branches of culture – arts as qualitative and soft, and science as quantitative and hard – are estranged from one another.⁶¹ According to

Fabian Wurm, Flusser was not a regressive cultural critic; instead, he viewed the computer as a catalyst for a small-scale cultural revolution.⁶²

Regarding AI technology’s application to the artistic sector, the following query still has to be answered: Does science make an effort to influence the usage of scientific language in art? Does rational thinking extend its methods to the arts? These are concerns that one is encouraged to consider.

This article explores the aura of artworks by contrasting AI-generated art with original works of art. The research led to the following query: how can art simultaneously convey some truth and subvert the permanence of presence? It is found that art achieves this by acting as a contingent interlocutor with the absolute. Art is drawn into the metaphysical yearning for the Other through the discourse of contingency to an absolute. The artwork’s aura emerges from this process, serving as an indicator of the relationship characterized by an infinite flickering between presence and otherness.

AI employs rationalized language as a narrative rather than artistic speech (expression). AI cannot capture the aura of an artwork; it can only manipulate signs, codes, or styles from it. This study demonstrates the importance of emphasizing the aura of artworks to differentiate between AI-generated non-art pieces and real works of art.

AI-generated art is incapable of creating novelty (*novum*) because AI works are absolute mimesis, or replication without remains. It is concluded that AI cannot take over the aura; the aura cannot be rationalized or simulated. Instead, AI is limited to manipulating codes or symbols contained in an artwork. This article does not argue that it is impossible to establish the truth in an artwork created with AI assistance. Rather, it asserts that AI cannot be the author or co-author of a work of art. Artworks can be created using AI technology, but only if its creation retains its own artistic language – the language that encounters otherness.

AI-assisted works cannot be considered art as long as AI is employed as a language in artistic expression, imitating the language of other artistic media. However, AI has the potential to assist in art creation if it is used solely as a supplemental technical instrument and if the artwork’s artistic language transcends it.

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ARTICLE

A chamber of horrors: Spanish art and its enemies

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Abstract

This article traces connections between reviews of Spanish art in Britain between the 18th and the 21st centuries and the public pre-judices that seem to have remained constant. Beginning with the famous London exhibition of 2009, *The Sacred Made Real*, the article addresses the origins of the language of reviewers, from the late 17th century to the Age of Enlightenment; to 19th-century debates about Catholic art, and the dislike of waxworks, effigies, and polychrome sculpture. Reviews and critical writings about Spain and its art are often linked by the same exaggerated rhetorical hyperbole with regard to the raw realism of some Roman Catholic imagery from the 16th century onward. Attempts to promote the art in Britain have met with unexpected results. The growing popularity of Spanish artists such as Diego Velázquez, Francisco Goya, and Salvador Dali exercised a long artistic influence in the 20th century. This article suggests that the “enemies” of Spanish art did as much to promote the artistic value of Spain as did its admirers. Reactions and criticisms to Spanish art from the British, which spawned hostility or indifference among Protestant writers, from John Ruskin to Philip Hamerton, were also to create a whole new creative endeavor at the end of the 20th century. Anger, anxiety, and transgression became new artistic promptings and it is here that links to British Surrealism appear. The figure of an artist from the past as a purveyor of horror, whose work summoned up associations with death, deformity, and violence, came to characterize the art shown at the 2009 exhibition in 21st-century London. Works of such importance and influence were also to become unclassifiable but were also broached as a source of new artistic inspiration.

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doi: 10.36922/ac.3604**Received:** May 8, 2024**1st revised:** July 19, 2024**2nd revised:** September 3, 2024**Accepted:** September 3, 2024**Published online:** March 24, 2025**Copyright:** © 2025 Author(s).

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Publisher's Note: AccScience Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.**Keywords:** Spain; Polychrome sculpture; Waxworks; Catholic; Goya; Prints; Horror; Transgression

1. Introduction

Various public reactions to Spanish art have appeared in Britain for several centuries and it is the contention of this article to suggest that, in terms of both opinion and rhetoric, little has changed. The exhibitions referenced in this paper have drawn indifferent or outright hostile critiques about Spanish art from newspaper and periodical reviews, as well as from academic art historians. Over time, from the 18th to the 21st centuries, it is significant that while the details of such critiques may alter, the arguments seem rooted in familiar pre-judice. The aim here is to analyze such pre-judice and suggest

possible causes for this as well as to claim that through the hostile criticisms of Spanish art, British art criticism has itself become a different medium. One unexpected development is how the work of such a famous figure as the Aragonese artist Francisco Goya (1746 – 1828), regarded as a transgressive producer of horrific images as well as a revolutionary in the 19th and 20th centuries, - resulted in the Spanish school inspiring new forms of creativity in the 20th and 21st centuries specifically among young British artists.

2. The Sacred Made Repellent: Confronting images of martyrdom in London (2009)

On October 21, 2009, an exhibition opened at the National Gallery in London, *The Sacred Made Real; Spanish painting and sculpture 1600 – 1700*. It remained on show until January 24, 2010.

The exhibits were drawn mainly from convents and churches throughout Spain, with only a few sourced from private and national collections in other countries. The nature of the artworks was devotional; that is, images and objects originally intended to inspire faith and meditation in the beholders.

Hung in the modern wing of the National Gallery's Sainsbury Centre, the exhibits were spotlit and subjected to shadowy backgrounds. Unable to reproduce original ecclesiastical settings, the curators relied on dramatic lighting that gave the illusion of closed-off spaces. *The Independent's* art critic summed up the effect in a startling allusion: "In the first room...it invites you in, as if to a chamber of horrors..."¹

This reference to "a Chamber of Horrors" does not simply recall the exhibition of waxwork images of French victims of the guillotine which Madame Marie Tussaud (1761 – 1850) opened at the Lyceum Theatre in London in 1802 and which is now one of the most popular exhibitions established permanently in London's Marylebone Road. The reference also derives from a far older source: One which evokes the popular waxwork shows in England and even the controversial English dramas of the 17th century, with their exaggerations of the horrors of Roman Catholicism. The polychrome sculptures of dead Christs and Christian martyrs in 2009 transported the modern spectator back to another age.

The most notorious example of a dramatic involvement with waxworks appears as a climax to what has been called the "glorious cruelties" of the Jacobean theater. The famous Act Four, Scene One of the *Duchess of Malfi* by John Webster (c.1578 – c.1632), generally referred to as the "waxworks scene," is a horrific moment in the play. In this

scene, the doomed duchess, imprisoned by her brothers – one of whom is a cardinal – is shown wax effigies of the corpses of her husband and child, which she assumes to be real. Here is not so much the *Sacred Made Real* as the tragic and forensic in brutal display. Her veneration of these supposed corpses is said to make her "plagu'd in art," a possible reference to sculptural effigies of dead kings and martyrs used in funeral rites, recalling the tradition of making imitation corpses in the 16th and 17th centuries. In this context too, the polychrome wooden figure of the dead tortured Christ, which dominated the 2009 exhibition with shocking immediacy, and seemed to imitate the disturbing illusion of waxen effigies, became the glory of the Spanish school of sculpture in the 17th century. Those exhibits alone retained the power to evoke even in the 21st century, feelings of grief and revulsion.

A late 20th-century critical analysis of *The Duchess of Malfi* has claimed: "Images of the dead—the corpse, the severed body parts, and the skeletal remains—are such notable features of this play as well as of 17th-century theatre and culture in general."^{2(p.277)}

On the Jacobean stage, the reactions of the actors reflect these sensations: The Duchess of Malfi kisses a wax hand, which she believes to be the hand of her dead husband. Severed body parts appeared in the 2009 exhibition, where a truncated head of John the Baptist transfixed viewers with its accurate anatomical details. "This could be sculpture as an object of a salacious curiosity, a kind of gory relic," commented another modern reviewer.³ In Jacobean times, the link between the corpse and belief was strong: "...seventeenth-century Catholic tracts privilege the corpse not only for its ability to contain the sacred but also for its capacity to underwrite cultural and institutional certainty."^{2(p.279)}

The result of divorcing such emotionally expressive and powerful artworks from their ecclesiastical settings and displaying them to the public provoked different reactions from many quarters of the modern society that viewed them. Referring to Webster's play, one historian has written: "In the waxworks scene, it is the corpses that are displayed."^{4(p.23)} The word "displayed" suggests that the scene conjures the illusion of an exhibition. Similar figures of martyrdom, mostly of the tormented and bleeding, dominated the London exhibition of 2009 – 2010, not made in wax but in wood, glass, cork, ivory, and bone. These polychromatic images also enhanced the vividness of the contemporary martyrdom paintings by Francisco de Zurbarán (1598 – 1664) and Diego Velázquez.

The image of bodily torment, thus separated from the mysticism of ecclesiastical purpose and conveyed to the theatre or an exhibition venue, might, in the 17th century,

have been seen as strengthening the effect of Jacobean tragedy. However, the exhibits of 2009 in the London Gallery had been taken out of their original settings and positioned in a modern surround, where atmospheric lighting conferred a surreal illusion on each object, color, and line, as if on a stage. *The Sacred Made Real* was an exhibition regarded as unique and unprecedented in London. It is, therefore, intriguing that the popular journalism of 21st-century reviewers reverted to the language and rhetoric of a past age. Such reviews may be secular but still retain associations with English historical religious confrontations.

The display of Spanish church art from the 16th and 17th centuries seems therefore to have evoked references to theatrical presentations, waxwork shows, and funeral rites from a controversial period of history, traditionally designed to thrill spectators with horror. “Rendering *The Sacred Made Real* is certainly what the dead Christ does. It is disconcertingly, even horribly, lifelike – or rather, deathlike.”⁵

The phrase “horribly lifelike – or rather, deathlike” of this critical comment objectifies the naked body and bloody wounds of a wooden corpse, with cork and pigment arranged like seeping blood. This induced in some spectators a sense of shock, even giving rise to words like “pornographic.” Above all the sallow coloring of the skin – for which such images, both in sculpture and in painting, were famous^{6(p.46)} – suggests that these polychromed devotional figures were not so much sculpture as effigies, similar to waxworks, summoning up the ambiguous status of replicas of human bodies poised between life and death.^{7(p.852)} The exhibition was summarized by one reviewer who referred to it as a “superbly dark gorefest,”⁸ and a more upmarket critique which nevertheless in seeking to praise could not resist commenting that this was “highly emotive art... a form of excess.”^{9(pp.12-13)}

For some, therefore, viewing this exhibition was a moving experience. For others, the emotional content and realistic depictions of martyrdom were repulsive, and that feeling had behind it several centuries of psychological distaste when viewing much of the Catholic art of Southern Europe.

Disapproval of the waxwork museum, which seems to have affected some viewers of the polychrome sculptures in *The Sacred Made Real*, can also be traced back to Enlightenment perceptions of bad or low-class sculpture. This, too, recalls critical comments from the 18th century. Even Shakespeare could not avoid criticism. Scene III, Act V of *The Winter's Tale*, when Queen Hermione, long believed to be dead, is presented as a living statue attributed to Giulio Romano, provoked one 18th-century critic to

claim that Shakespeare’s mistake was not only to attribute sculpture to Giulio Romano, which “makes of this famous painter a statuary... but what is worst of all, a painter of statues.”¹⁰

In the age of neoclassical art theory and monochromatic sculpture, painted statues) – even the tomb effigies of Shakespeare’s day) – were held to be low art. The appearance of a painted statue again evokes memories of effigies of dead royalty made for funerary celebrations and religious votive statues. Their colors and “deathlike” illusions also, however, recall sensations achieved by popular waxwork shows and the theatre. The fact that such rhetoric still exists in the 21st century demonstrates how long it takes for pre-judices to dissipate. “The visibility of the body in pain is systematic rather than personal; not the issue of an aberrant exhibitionism but formed across the whole surface of the social as the locus of the desire, the revenge, the power, and the misery of this world.”^{4(p.23)} This comment from Francis Barker’s writing in the 1980s summarizes the random effects of both theatre and art exhibitions in relation to effigies of the dying and dead.

Other Spanish images, both ecclesiastical and secular, have also drawn their share of critical bile in Britain.

3. Eighteenth- and nineteenth-century opinions

The 2009 – 2010 London exhibition, although largely successful, thus encountered negative reviews of a peculiarly historical type. This was not the fault of the curators, but removing religious artworks from their places within ecclesiastical settings also removed their functional role as devotional images and made their significance hard for foreign spectators to understand. This issue was emphasized two centuries earlier by the greatest British 19th-century commentator on Spain, Richard Ford (1796 – 1858), who wrote: “Can it be wondered that such works, now torn from their original shrines and desecrated in lay galleries, should loom gloomily and out of place...?”^{6(p.57)}

The Directors’ Foreword, published in the accompanying 2009 exhibition book, pre-empted much of the possible hostile reactions to the exhibition by referring back to the 18th century, when such works became especially unpopular: ...what has been assembled here... demonstrates that Spanish polychrome wood sculptures are worthy of the same attention as the paintings by Zurbarán, Murillo, and Velázquez that are displayed beside them. The exhibition is designed to address neglect that has its roots in the disdain with which the Enlightenment regarded these devotional works of art as objects of superstitious veneration; a distaste that was often mingled with the Protestant distaste for Mariolatry and martyrs.^{11(p.7)}

Citing the enemies of Spanish Catholic art as coming from the Enlightenment period is a familiar issue in the history of art, but also a limited one. More recent scholarship has laid bare the pre-judices of 18th-century Spain itself with regard to the country's own art history, which could even affect architecture. Writing about Spanish late 18th-century "aversion to what has come to be called the baroque," the expression "time of plague" was used by one major 18th-century architectural treatise when referring to late 17th-century and early 18th-century designs^{12(p.433)} Painted statues of the Virgin were condemned by the Spanish artist and historian Antonio Ponz (1725 – 1792) as "ridiculous,"^{13(p.54)} mainly because the "common people" who loved such things lacked a proper education.

In Enlightenment Britain, however, such censure was less general with regard to the art of Spain. The 1st English edition of the popular work by the artist and art historian Antonio Palomino (1655 – 1726), entitled *El Parnaso español pintoresco laureado* appeared in London in 1739, translated as *An Account of the Lives and Works of the Most Eminent Spanish Painters, Sculptors, and Architects; and Where Their Several Performances Are to Be Seen*. This was followed by two further editions in English.¹⁴ This book became popular reading among the educated British elite, who had begun to travel to Spain more frequently. Here were stories about the Spanish artists that only a few had been able to admire and the Sevillian painter, Diego Velázquez (1599 – 1660) became the hero of the whole book. Nevertheless, Italian and Flemish artists were more popular among British collectors, and these attitudes were succeeded by more controversial, even abusive reviews of Spanish art in 19th-century Britain. The Sevillian painter, Bartolomé Esteban Murillo (1618 – 1682), for example, commanded much respect and competitive prices among British collectors in the 18th century, but his prices and influence declined toward the end of the 19th century.¹⁵

The 19th century was when anti-Catholic pre-judices were strongly debated in Britain. The history of the reception of Spanish works of art at this time is one of highs and lows, and the high points of positive opinion in Britain are found at the beginning of the century, following the British military intervention in Spain during the Peninsular War from 1808 to 1814, when many works attributed to Spanish artists were dispersed, looted, bought, and often lost. British interest in Spanish art, following the growth of tourism, was sometimes positive, but the positive attitudes have been explored far more than the lows of hostility, dislike, and even repulsion. In the 19th century, a profoundly negative image of Spain and the Spanish Catholic Church could also influence the reception of Spanish art in Britain. While much of the reception was

hostile, a few writers published work in defense. One such writer was Sir William Stirling Maxwell (1818 – 1878), the Scottish industrialist and collector who published in 1848 *Annals of the Artists of Spain*, a profoundly influential book that emphasized the importance of religious art in Spanish culture. Such open-mindedness was counterbalanced by a review that appeared in *Fraser's Magazine*, in which the writer J.W. Donaldson (1811 – 1861) asserted the popular criticisms of Spanish art, that it was too dark, too Catholic, and specialized in a raw, repugnant realism. The major art critic of the day, John Ruskin, whose writings on art is still influential, could never bring himself to praise Spanish art and asserted: "Spanish painters" were "a thoroughly irreligious rascally set."^{16(p.150)}

Some of this disgust even existed in the popular travel literature of the late 19th and early 20th centuries, where Spain became inextricably linked to its art. Frances Elliot, author of *Diary of an Idle Woman in Spain*, published in 1884, praised the Museo del Prado in Madrid as a wonderful art gallery but could not admire the Spanish painters on display: "All the horrid dwarfs of Velazquez... Such works degrade art, the realism is overdone."^{17(pp.89-90)} The raw naturalism of polychrome religious sculpture and paintings that monumentalized wounded, dying religious figures, was a constant theme. "Artists in no other country have depicted the sufferings of Christ and the torture of martyrs with the same delight in detail," wrote Mrs. Walter Gallichan (C. Gasquoine Hartley, 1866/7 – 1928) in her 1921 art-historical travel book *Things Seen in Spain*.^{18(p.64)}

Nineteenth-century articles and books in English that attempted to foster appreciation of Hispanic art were often written by those who reacted to public indifference to Hispanic images. Richard Ford asserted in *The Athenaeum* in 1853: "Our Protestant pre-judices and pre-dilections militate against subjects of a legendary, superstitious character."^{19(p.151)} Perhaps because of this historical legacy, the 2009 exhibition and its type of display also drew a few reactions reminiscent of such historical biases. Just before *The Sacred Made Real* opened in October 2009, the Public Relations Department of the National Gallery even suggested limiting visitors to those over the age of 18.^{20(pp.84-86)}

4. A critical turning point in 1879: Goya and his times

The body of literature devoted to promoting the Spanish school of fine art has often been obliged to include references to the critical hostility which artists from Zurbarán to Goya or, from the sculptor Gregorio Fernández to the Surrealist Salvador Dali have drawn from posterity. This hostility may seem no more than political or religious bias toward

the visual artists of a powerful country, with a violent and controversial history often seen as the once tyrannical ruler of a huge empire. However, similar criticisms have survived into the modern world and similar critical attacks are not only directed against the religious sculptors of the Sevillian School but also against Spanish secular art.

In the context of British art historians writing about Spanish art in journals and response to exhibitions, it is ironic that the most hostile and quasi-abusive critique ever written about a Spanish artist – indeed, by association, about Spain itself – appeared in a British journal edited by a distinguished English artist and critic, Philip Gilbert Hamerton (1834 – 1894). His three articles on Goya appeared in the well-respected art journal *The Portfolio* in 1879.²¹

Hamerton lived in Paris, and his articles were partly sparked by the exhibition of Goya's so-called "Black Paintings" at the Universal Exposition held in Paris in 1878. His diatribe on Goya's art was prompted by this first display of the "Black Paintings" after they had been transferred from the walls of Goya's last dwelling in Spain, his villa outside Madrid, known as *The House of the Deaf Man* (*Quinta del Sordo*).

The first of Hamerton's articles, *Goya I*, sets the scene:

If the reader visited the Universal Exhibition in Paris in 1878, he will probably not have failed to pass at least some hours in the "Retrospective," which occupied the galleries of the Trocadero, and it is just possible that he may remember a series of paintings by Goya, the property of Baron Erlanger, which were kindly lent by him to give the Parisian public, and foreigners from beyond the sea...an opportunity of deriving moral and esthetic benefit from the works of the successor of Velasquez (sic).^{21(pp.67-69)}

Continuing to portray innocent visitors stopping to look at paintings by Goya, Hamerton claims that the only reason these untutored spectators paused and tried to admire these works was because they had been influenced by critics to regard Goya as a great "celebrity" and that because of this, they felt obliged to scrutinize the paintings and even to admire them. He continues to express some doubts as to whether such images should be shown to untutored visitors, much like 130 years later, the organizers of *The Sacred Made Real* in London wondered if children below the age of 18 should be allowed to see the show.

Hamerton continues, swiftly moving from the Black Paintings to the body of literature concerning Spanish art:

Goya has indeed been so much written up by Continental critics during the past 10 or 20 years,

that it requires certain courage to say the truth about him. The successor of Velasquez has been lifted up to the rank of a great master and since, on the Continent, the great masters are not to be criticized but only worshipped, their position is almost unassailable. what is fame? It is nothing but a noise made by talkers and writers...^{21(pp.67-68)}

Speaking of the Black Paintings, which he derisively calls "frescoes" (although he goes on to explain how these were oils transferred onto the canvas from Goya's own house), he describes how the artist's creative imagination failed to produce anything pure, beautiful, or elevated. In fact, the images painted by Goya are foul in color, disgusting, and "grovel" in a horrible, chaotic region of their own.

Some of this rhetoric brings to mind the language of critical hostility directed against Spanish Church sculpture and painting of the 17th century when Spanish artists searched for the means of conveying to the beholder the suffering of martyrdom as a direct experience. The raw realism of certain kinds of Spanish art had again met the critical legacy of the British critics. Apart from one or two classical and Christian themes Goya used in the Black Paintings, there was arguably little of traditional art in their achievement. However, for Hamerton, the grotesque qualities of such imagery were something he found deeply disturbing.

The fine art exhibits were poorly hung in the 1878 fair, according to contemporary accounts and Hamerton's articles dealt only briefly with the paintings. His main interest, however, was Goya's famous prints. *The Portfolio* was a periodical devoted to analyzing works on paper, with articles published on prints by Rembrandt, Durer, and Whistler, among others.

Pausing his diatribe about Goya's paintings, Hamerton then goes on to give an outline of the artist's life, from a delinquent, moody child to a teenager always in trouble with the authorities, giving examples of how Goya seduced young women and made his way at the Spanish court through flattery, charm, and his influence on women. "He was welcomed for his vices," states Hamerton, with no evidence. "He lived at court in an atmosphere of vice and corruption which suited him exactly. He was the pet of the great ladies who were as destitute of morality as himself..." According to this text, it was through the Duchess of Alba that Goya caught an illness which caused deafness and changed his nature, which "soured" him.^{21(p.72)}

In the second of these articles, Hamerton looks at Goya's later life. It is here that Goya's immorality causes the writer to see the whole of Spain, and not just the Spanish court, as evil and corrupt. Goya reminds Hamerton of

“an infernal force.”^{21(p.82)} This perception was particularly true of Goya’s prints, which showed how he delighted in disgusting subjects. Goya was an unfaithful husband and a violent revolutionary. While none of these claims are true, some of this hyperbole is taken from popular biographies, and some seem to have been invented by Hamerton to support his claim that Goya’s art was as corrupt as the artist and his nation. According to Hamerton, Goya lived in a “thoroughly immoral state of society.”

Hamerton devoted the 1879 articles to Goya’s life and work in general, especially with the major print sets Goya produced in his lifetime, which made him famous far beyond the confines of Spain. Hamerton wrote:

His real delight was horror, as we see quite plainly from his numerous etchings, the Caprices, the Disasters of War, and others, all executed by him in the free energy of private and personal inspiration. ...Moral horror seems to have been as attractive to him as physical...^{21(p.69)}

Written as a direct response to Goya’s work, the articles by Hamerton in *The Portfolio* offered a major esthetic change in how popular art journalism might criticize the art of Spain. According to Hamerton, Goya was a monster of immorality, but “how could he be otherwise, since he lived in an intensely corrupt society?”^{21(pp.100-101)}. This vituperative attack on Spain and its art by a British writer may well have prompted the trend of associating such art with the growth of horror occasionally used in 20th-century novels and films. Similarly, the assumption grew that artistic subject matter reflected the character of the fine artist and held up a mirror to the artist’s society.

The hostile outpourings of this English critic, whose writings are now little known in the 21st century, therefore targeted not just the artist and his work but also his character, the culture, and the society in which he lived and worked, extending to the vilification of the entire Spanish nation. Although Hamerton himself may have faded into obscurity, *The Portfolio* was an influential periodical and an arbiter of taste. It is ironic that, as later researchers have discovered, the reputation of Goya – whose techniques were often at odds with the conventional painting and engraving methods of his time, as well as prevailing tastes – established a spurious posthumous reputation as a revolutionary, adulterer, and violent personality.

Hamerton invented a form of hostile rhetoric through which repellent subject matter is united to the artist’s moral character. The fantastic physiognomies Goya designed in his prints – *Los Caprichos*, the *Disparates*, and the stark realism of the *Disasters of War* – all of which Hamerton

knew well and which many critics considered progressive, valuable, and original, were transformed into the products of a transgressive imagination.

Hamerton distinguishes himself by his public diatribe against both Goya’s art and the man himself:

His personal character was in many ways as repulsive as his art. The fame of Goya has already poisoned art criticism in Spain and France, and it is beginning to spread to England...It is time therefore to show plainly what Goya was.^{21(p.69)}

The condition of Goya’s mind – his continued state of anger and hatred – dominates the rest of Hamerton’s essays. It may be only coincidence that the artist, as a transgressor who chose to portray the macabre and horrific while in a continuous state of anger, was exemplified by Hamerton, who especially referenced Goya’s internationally famous prints, the *Caprichos*. Hamerton was not alone. In fact, his loathing of Goya’s prints was shared by others in Goya’s own day. The professor of engraving and printmaking at the Royal Academy in Madrid, upon receiving a copy of the artist’s *Los Caprichos* published in 1799, recorded his opinion in his diary: “Saw a book of witches and satires by Goya; didn’t like it, it’s very obscene.”^{22(p.162)}

The graphic art of Goya, censured by critics in his own country and abroad, was a secular art lacking any gloss of Catholic extremism. Yet, this censure mirrored the critical hostility directed at Spanish religious sculpture and painting. Victor Hugo described Goya as an artist who drew “hobgoblins” in his art, and John Ruskin actually burned some of Goya’s prints.

5. Twentieth-century redemption

The twentieth century developed more tolerant attitudes toward the fine arts, absorbing and popularizing styles, such as Surrealism and Abstraction. Despite often robust controversies, it managed to support the idea of artistic independence. Biographies of great artists became even more popular than they had been in the 19th century, and Hamerton’s method of portraying an artist’s life as inextricably linked to moral character and the qualities of a specific nation gave new impetus to art historiography. The artist and his country, along with his struggles and triumphs, reflected something intrinsic to that country. In 1934, Ernest Hemingway, writing in support of the New York exhibition of prints and drawings by Luis Quintanilla (1893 – 1978), claimed that “Good Spanish painters are always in trouble.” He went on to describe the difficulties faced by Velazquez, Goya, Picasso, and Juan Gris.^{23(pp.178-179)}

Two British academics, Edgar Allison Peers (1891 – 1952) and Nigel Glendinning (1929 – 2013), devoted their careers to fostering a more tolerant public attitude toward Spanish culture. The first specialist journal, the *Bulletin of Spanish Studies*, was founded in 1923 by Allison Peers. This scholarly review, dedicated to research on the language, literature, history, culture, and civilizations of Spain, covered a wide range of topics.

As a Professor of Hispanic Studies at Liverpool University, Peers was well-positioned to influence the taste for Spanish culture. His influence anticipates that of the much later academic Nigel Glendinning at Queen Mary, University of London, who saw the need for a new, slightly more specialized journal dedicated exclusively to the art of the Hispanic world. In 2007, Glendinning was instrumental in founding a visual arts special issue of the already established *Hispanic Research Journal* at Queen Mary, University of London, with the hope that:

A surge in research among scholars working on the visual arts of Iberia and Latin America prompted discussions about how best such research could be published. While many established and emerging art historians and scholars write for discipline-specific journals, there appeared to be a need to create an outlet that would bring together the richness and heterogeneity of work being done in the field of Iberian and Latin American art.^{24(p.387)}

This hope may have contained memories of another London exhibition, the spring show at the Royal Academy that opened in 1976. Entitled *the Golden Age of Spanish Painting*, it consisted of 88 paintings but no sculpture. Written by the director of Madrid's Museo del Prado, Xavier de Salas, the Foreword to the catalog stated that this was the first survey exhibition of Spanish Golden Age painting since the Burlington House exhibition of 1921, *Ancient and Modern Spanish art*, which had established the pivotal position of Goya as a Hispanic art-historical canon. Unlike earlier British opinions of this artist in the 1920s, it was now believed that Goya had produced work, particularly in tune with the modern age. In the post-war years, many more enthusiasts in Britain had come to know and admire Spanish art and the art of Goya. In 1964, the Royal Academy had displayed a major show, *Goya and His Times*, but the 1976 *Golden Age of Spanish Paintings* was not a notable success. In the "Preface" to the catalog, W.T. Monnington, President of the Royal Academy, made the point: "Apart from that magnificent exhibition devoted to 'Goya and His Times' in 1964, there has been no major show of Spanish painting of any kind at the Academy since 1920/21, and comparatively few of major importance in this country at any time in the intervening period."^{25(p.5)}

Nevertheless, Xavier de Salas also insisted that the British had a long tradition of admiring Spanish art. According to him, Richard Ford and Sir William Stirling Maxwell were in many ways responsible for how the "taste for Spanish painting began to be developed in London."^{26(p.7)} However, he also admitted that Spanish art was not broadly or popularly known in England, though he maintained that increasing interest in Spanish art outside Spain had, he asserted, been fueled by the growth of magazine and journal articles, as well as books.

It was through the article and the exhibition that lone voices speaking up for Hispanic art appeared in the 20th century. British Hispanist art historians to promote Spanish art were especially linked to the writing of journal articles. The contribution to British knowledge of Spanish art history by the academic journal was crucial since the foundation of the *Connoisseur* and *The Burlington Magazine* in the early 1900s, and the foundation of the *Bulletin of Spanish Studies* in 1923.

The "Introduction" to the 1976 exhibition catalog was written by Glendinning; in which he stated his aim to put Spanish art into context. This was part of his dedication to promoting the Spanish artistic vision in Britain. "The fortunes of artists are linked to their country's economy," he wrote,^{27(p.11)} and he went on to demonstrate the varied range of subject matter among Spanish painters in the 17th century, matched by the adventurous tastes of collectors and patrons. He continued to display his skills in citing statistical surveys as well as analyzing compositional traits in Spanish art. Always open-minded regarding different types of stylistic developments in Spain, he demonstrated this in many subsequent essays, articles, and books. His aim was to demonstrate that there was no single character of Spanish art, but a wide variety of styles and subjects. However, the response to the 1976 exhibition clearly gave him a challenge he never forgot.

In his last book, published in 2010, 3 years after the foundation of the *Hispanic Research Journal Visual Arts* issue, Glendinning looked back at the trajectory of efforts to make Spanish art more popular in England. In this context, he remembered the exhibition he had helped curate and promote in 1976, *The Golden Age of Spanish Painting*, which had attracted little public attention and some public censure. He wrote:

Yet British resistance to the darker side of Spanish art and its more violent realism, which was apparent in the writings of Richard Ford and, above all, John Ruskin in the nineteenth century, dies hard. It could certainly still be sensed in the response to the Royal Academy's *Golden Age of Spanish Painting* exhibition of 1976.^{19(p.22)}

The mixed reception provoked by Spanish devotional art was not, therefore, confined to the Enlightenment alone. Indeed, at certain times, similar hostility was applied to Spanish art in general. Popular newspaper reviews of the 2009 *The Sacred Made Real* at the National Gallery in London gave the event more coverage and notoriety than they did to the *Golden Age* exhibition 33 years earlier, which garnered few popular reviews. In fact, apart from one or two academic articles in journals such as *The Burlington Magazine*, the reaction to the show seems to have been mainly indifference.

Much of the popular critical rhetoric of the 2009 show was derived from this historical background. While it might seem to revert to long-established traditions, it is also something of an anomaly, given that the huge publishing market for biographies of Spanish artists such as Velázquez, Goya, Picasso, and Dalí never ceases to dominate the art-historical market with different biographies, primers, analyses, and commentaries.

New research also continues to come to light, with films and biopics of the most famous Spanish artists winning many admirers. Nevertheless, the traditional British suspicions about the art of Spain continue to appear among critics and reviewers, particularly about ecclesiastical as well as secular imagery.

The polychrome sculptures of dying martyrs and the atmospheric portraits of Saint Francis or Saint Serapion, commissioned by devout worshippers, were only part of the glories of the Spanish school. As Glendinning had pointed out, there were many other subjects at which Spanish painters excelled and many different types of patrons in Spain. However, even when Spanish art encompassed secular imagery of classical or contemporary subject matter, the images produced in Spain were often regarded as strange and unacceptable.

The most popular and detailed outlining of the history of great art, Kenneth Clark's *Civilisation*, broadcast on BBC television in 1969, was an influential series of six films championing the history of serious art from the Dark Ages onward. It is significant that, in the entire series and the accompanying publication, there are only two brief references to the art of Spain. The 17th-century context of Velázquez and his contemporaries is dismissed as "the superstitious, convention-ridden court of Philip IV."^{28(p.213)}

6. A gift to posterity?

There are still reviewers who reflect the limited taste and outright condemnation of the art of Spain in ways that recall not only the anti-Catholic bias of Jacobean theatre but also the change in art criticism referring back to the

moral criticisms of Enlightenment writers. This also contrasts between Catholic imagery and the more somber Protestant aesthetic. The later Romantic development of the horrific and grotesque, so vividly condemned by Hamerton, anticipates the 20th-century perception of the artist as a transgressor – an increasingly influential role played out in 20th-century exhibitions. With regard to Goya, and, specifically his graphic art, the essays by Hamerton appear to anticipate how Goya would become the inspiration for a new generation of artists and art historians.

Sentimentalizing or making fictional narratives from the qualities of Spanish art that 19th-century writers had deplored signaled a change in academic approaches. In 1977, in his ground-breaking publication *Goya and His Critics*, Nigel Glendinning examined the Aragonese artist's critical legacy from his own day to the 20th century, emphasizing the subtleties of Goya's work and the variety of criticism – from hostility to fictional narratives and poetic tributes. Emphasizing especially the violent reactions to some of Goya's more extreme works, Glendinning chose to make Hamerton's diatribe the longest Appendix in the book.^{29(pp.296-301)} Such emphasis on the violent outpourings of a Victorian critic about a Spanish artist demonstrates how important Glendinning felt Hamerton's contribution was to the historiography, not just of Goya, but of Spanish culture itself. The generalizations about an art that is far more nuanced and varied than such criticism might imply are delicately dissected. Just as Glendinning had tried to introduce Spanish art of the Golden Age to the British public, he established the originality of a national style in all its varied forms.

Nevertheless, the mixed reactions toward Goya as a printmaker are still somewhat reflected in the approach to the graphic arts of Spain in a wider context. Despite the fact that Spain had produced several of the most innovative print artists in the history of graphic design, such as Goya, Pablo Picasso, and Salvador Dalí, even present histories of printmaking reveal suspicion of the Spanish achievements in this specialized discipline. "It must be admitted that Spain's contribution to the history of Western printmaking has been less significant than that of the Netherlands, Germany, Italy, or France," This comment appeared in an exhibition catalog published in 2021.^{30(p.16)}

However, the idea floated by Hamerton that Goya and his art had poisoned the visual culture of Europe and was spreading to England offers a strangely ironic prophecy – one of which Glendinning, in his 1977 book, may well have been contemplating as he concluded his study of Goya critiques with Hamerton's diatribe as the finishing touch.

Yet another significant exhibition opened in London exactly 4 years before *The Sacred Made Real: Jake and Dinos*

Chapman: Like a Dog Returns to its Vomit was displayed in the White Cube Gallery, from October to November 2005. The Chapman Brothers had become obsessed with Spanish art and Goya's prints. In several exhibitions, they drew, painted, sculpted, or printed copies, derivations, and additions to specific works, emphasizing the grotesque and horrific elements. Sword swallows, magicians, knights, pantomimes, and a host of grotesque objects and figures drawn from mime shows, circuses, carnivals, and religious rituals create a teeming esthetic world ranging from *Don Quixote* to Goya prints, displays of corpses and crucifixions, all added to or overlaid on numerous etchings, watercolors, and pieces of sculpture.

In what seems like a deliberate parody of Hamerton, the critical responses of the Chapman brothers, in an interview with Nick Hackworth, responded to the question of why they wanted to "improve" Goya's *Caprichos* in some of their work. They asserted that the prints are "nasty," "unpleasant," but "they needed our help."^{31(p.15)} The *Caprichos* and *Disasters of War*, Goya's most famous sets of prints, so violently condemned by Hamerton, dominate their artistic agenda.

As a forerunner of a new vision, Goya has found his place in the contemporary cultural world, where he is regarded as showing himself to be part of the art of transgression. A wealth of new works, exhibitions, and articles have reaffirmed the artist's influence in Britain and America, and what has been defined as "the rich tradition of art-historical commentary" has spurred on what must be seen as new art movements as well as schools of criticism.^{32(p.480)} Goya is now placed at the vanguard of what the Surrealist French philosopher and art historian, George Bataille (1897 – 1962), called "the cruel practice of art."^{33(pp.3-8)}

How much did not just Goya, but certain aspects of Spanish art, in particular, represent this new image of the art of the past becoming, in many ways, the art of a troubled future?

Referencing the exhibition held in London in 2009, there appears to be even greater evidence that the rebarbative nature of some developments in the arts of Spain, reflecting radical shifts in attitude toward the grotesque. Such critical choices have overshadowed the wealth of different styles and subjects the country has produced over a significant period. The transformation of art criticism, used to analyze Spanish art by Hamerton's diatribe against the art of Goya, ironically appeared in a popular journal. The influence of this kind of writing has continued into the 21st century, where art journalism has become even more popular than it was in the 20th century.

The influence of Goya as a painter of horror has created a separate trajectory from the quite different work the artist also practiced. This has given material to films and crime novels. Two specific examples come to mind. Forensic scientist-turned-thriller writer, Kathy Reichs, brought out her novel *Fatal Voyage* in 2001. An airline crash in the woods, strange, isolated buildings revealing a basement full of murdered victims, and traces of black rituals portray an interior with paintings hung on the walls that are more than mere decoration. Several Chambers of Horrors crop up in modern references:

George moved his light to the next wall, and another monster stared down. Lion's mane, bulging eyes, mouth wide to devour a headless infant gripped between its hands.

"That's a bad copy of one of Goya's Black Paintings," Crowe said. "I've seen it in the Prado in Madrid."^{34(p.284)}

The Black Paintings were removed from the Museo del Prado long after Goya's death before being shown in Paris in 1878. They might well have remained unnoticed were it not for the articles by Hamerton. Now, they have become globally famous and, rightly or wrongly, are used as summations of Goya's entire career and as pointers to the realism of Spanish art in general. The art-historical insertion within a work of modern crime fiction suggests that Spanish painting can be used to reflect the tastes of murderers, thieves, and torturers in their interior decoration. The method of filling the rooms of perpetrators of atrocities with Goya's works goes back to Ira Levin's 1968 film *Rosemary's Baby*. In one of the last scenes, when the heroine finally breaks into the witches' apartment to search for her newborn son, she finds paintings on the wall depicting witchcraft scenes that Goya had painted for one of his most faithful patrons, the Duchess of Osuna, which he delivered to her in 1798. In the same way, some of the most violent films, such as *The Good, the Bad and the Ugly* (Sergio Leone, 1968) and *The Godfather* (Francis Ford Coppola, 1972), include images of statues of saints or martyrs, derived from the 17th-century Catholic iconography. In a similar yet unexpected development, wood or wax figures of individuals transfixed in mortal agony have recently come to be identified with images from 19th-century medical research.³⁵

7. Conclusion

The history of the visual arts in Spain has posed a number of issues, all of them problematic, raising tension between the core role of Spain in the broader European sense and the exploitation of Spanish art in its politically limited critical heritage. In Britain, this tension has been particularly acute, fueled by the rise of monographs on individual artists rather than perceptive general surveys. The role of Spanish

art, established by Palomino in the 18th century and Stirling Maxwell in the 19th, offered particular views of a particular artistic style within one particular nation. These views have arguably remained influential over the past two centuries. However, the assumptions about Spanish art established by these two writers are nebulous and imprecise. Dissenting voices and religious and political pre-judices have divided opinions, transforming the limited view of Spanish art through exhibitions, museum displays, and academic courses into a slightly more adventurous discipline.

Francisco Goya has been censured as a purveyor of horror, as were his artistic antecedents from the Golden Age of Spanish painting. In northern Europe, and particularly in Britain, the suspicion of Spanish Catholic art survives, often as an invitation to distaste. This sentiment even accompanies moments when it would seem that the aim is to praise and display the exceptional qualities of the Spanish school.

Art historians have used Goya's art for their own interests in concepts of transgression, and one describes it as a "litany of esthetic outrage."^{32(p.490)} Few would have realized how valuable these concepts of outrage and transgression could have become in England with the rise of the Young British Artists in the 1990s. Occasional references to the art of Goya or sculptural images of saints and martyrs in crime novels or horror films might seem like nothing more than a convenient and essentially commercial exploitation of artistic imagery known for its disturbing subject matter. However, behind this apparently impartial borrowing of an image to accentuate the drama of the moment lies centuries of hostile reactions, counterbalanced by the new developments of contemporary themes.

The pessimism and rebarbative imagery of much recent art in Britain have fueled British admiration for this 18th-century Spaniard, whose work has, in some instances, come to be associated with expressions of the infernal and the mortal. Similar interests also focus on earlier Spanish art, which both attracted and repelled British spectators. Seeking out a transgressive understanding of the modern self, British painters, sculptors, and printmakers, such as the Chapman brothers, investigated the potentially shocking forms of self-awareness and performed a vital function for British society by highlighting aspects of life often masked by taboos, repression, and denial.

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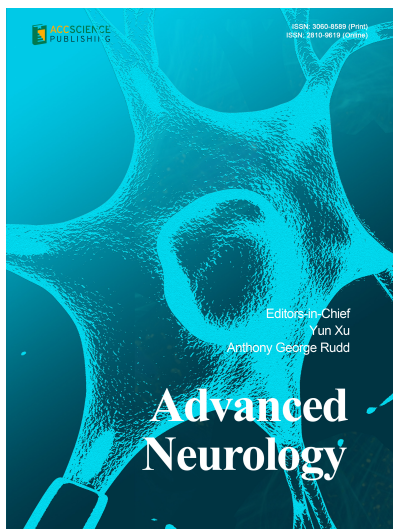
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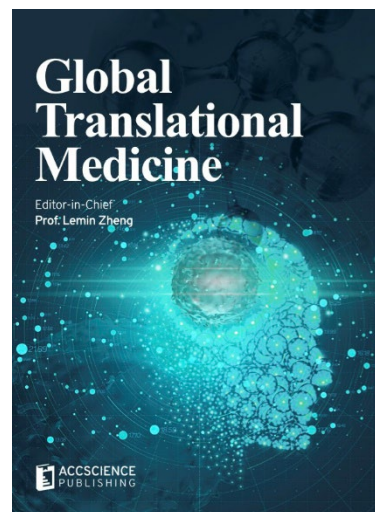
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