Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
Special Issue on Algorithmic Aesthetics and Artificial Intelligence in Visual Arts, Cultural Education, and Creative Practice 2025 6(2s)

IMPACT OF AI TOOLS ON ARTISTIC SKILL DEVELOPMENT IN SCULPTURE

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Received 29 January 2025
Accepted 20 April 2025
Published 16 December 2025

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DOI
10.29121/shodhkosh.v6.i2s.2025.6719

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

The swift development of artificial intelligence (AI) has brought about revolutionary possibilities to sculpture practice transforming how artists conceptualize, design, and make three-dimensional pieces. The paper explores how AI-related devices are affecting the development of artistic skills in the field of sculpture and how they are affecting the established artisanal abilities as well as the new digital skills. The research analyzes the application of the current sculptural workflow through the integration of technologies into it, including generative design, 3D model, and robotic fabrication. The results have emphasized that the conceptual skill development through AI tools is increased because of the ability to prototype more quickly, visual experimentation is extended, and complex geometries that are hard to build manually can be explored. Nevertheless, there is a growing concern about the practice of maintaining tactile skills, material sensitivity and embodied knowledge that is believed to be part of sculptural practice as a result of the growing dependence on digital assistance. According to the interviews and case studies, a significant portion of artists do not consider AI as a substitute but as a partner that enables a person to expand creativity and facilitates the decision-making process. The research has also established significant consequences to the art education field in that it is necessary to update the curricula to include a balance between digital literacy and manual skills. On the one hand, AI is a chance of innovation and, on the other hand, a challenge that emerging artists have to adapt to the fast-changing technologies.

Keywords: Artificial Intelligence in Art, Sculpture, Skill Development, Generative Design, Robotic Fabrication, Digital Art Tools

1. INTRODUCTION

Creativity, materiality and craftsmanship have always characterized the sphere of sculpture. Historically, the art of sculpture has posed great dependence on the hands-on abilities and tactile instincts with a close knowledge of the material of sculpture like clay, stone, metal and wood. The identity of the sculptors was achieved by several years of strict

training as they not only perfected their technical skills but also their conceptual ones. Nevertheless, with the fast development of digital technologies, especially artificial intelligence (AI), the field of modern art is changing, with new tools, processes, and means of expression, questioning established standards. Over time, with the rising role of AI in practice in the creative sector, the impact of these technologies on sculptural practice is an increasingly significant topic of scholarly discussion, given that they challenge both the way creative abilities are exercised and the overall creative process. Artificial intelligence can now assist in a full variety of sculptural tasks, including initial idea generation, through to intricate production. Machine-learned generative design, algorithmic modeling, robotic milling, and automated 3D printing have created new possibilities and opportunities to artists in creating complex forms previously unimaginable or impossible to create by hand Chen (2024). The formal possibilities of sculpture have been expanded by these digital interventions as well as the skills sets of contemporary sculptors have been transformed. The artists are no longer expected to operate using the manual hand dexterity but rather come out more digital and be able to achieve the skill of computing and be able to work together creatively with the smart tools. This transformation brings up some of the most basic questions of how artistic skill is changing, how people attach importance to the skills of being a traditional craftsman, and how human agency is a part of the process of creating something through technology Li et al. (2024).

Simultaneously, the introduction of AI into the sculpture has made the question of the authenticity and authorship of art controversial. Other critics claim that the use of automated or algorithmically generated work can reduce the role of the artist, possibly substituting the use of touch with machine work. On the other hand, the advocates of the use of AI in sculpture claim that they can be creative collaborators that enhance the imagination of the artist and allow them to express themselves in novel ways instead of eliminating old talents. These opposing views are important in assessing the true role of AI in the growth of artistic abilities especially at the time the technology is still in its progress and becoming more sophisticated Li and Zhang (2022). Furthermore, AI is important in modern sculpture not just in professional practice but also in the learning and teaching environment. Schools of art, training programs, and universities are looking at incorporating digital tools into their curriculum that raises the question of what sculptural training should be all about in the twenty-first century. Following the engagement between students and AI-driven systems, the process of learning, skill acquisition, and creative independence is formed in new ways. This educational change is an indicator of the necessity of a middle ground between the maintenance of manual skills that are traditional and the novel possibilities of new technologies Wang et al. (2024). Since the aspects of AI are spreading fast in creative sectors, it is urgent to conduct systematic research that looks at the effects these tools have on the development of artistic skills in the field of sculpture.

2. LITERATURE REVIEW

2.1. HISTORICAL EVOLUTION OF SCULPTURAL ART AND TECHNOLOGY

Sculptural art has a strong history of change in line with the technological progress that has influenced the expression of art and material options in history. The sociocultural and spiritual values of the ancient societies manifested in the early forms of sculptural practices which resulted out of the primitive tools that were used to cut stone, bone and wood. Since the colossal stone figures of Mesopotamia and Egypt, to the fine marble figures of Classical Greece, sculpture advanced along with advances in metallurgy, quarrying, and toolmaking Xu (2024). The Renaissance period saw the advancement of technology in the fields of perspective, casting, and study of the anatomy to create very realistic and expressive forms made by the artists such as Michelangelo and Donatello, which are the crucial step towards the humanistic depiction. The Industrial Revolution also changed sculpture with mechanization, the appearance of new alloys and mass-production, greatly increasing the scope of experimentation with materials Hafiz et al. (2021). During the twentieth century, there was the emergence of modernist and postmodern in art whereby artists adopted industrial materials like steel, plastic, and found objects, redefining boundaries between art, engineering, and design. The end of the twentieth and the beginning of the twenty-first centuries brought a novel paradigm to the sculptural practice due to the advent of digital technologies: specifically, computer-aided design (CAD), 3D modeling, and additive manufacturing. Such tools enabled form-making precision, scaling and intricacy never before seen Niu et al. (2021).

2.2. OVERVIEW OF AI APPLICATIONS IN VISUAL AND PERFORMING ARTS

The concept of artificial intelligence has quickly evolved into a disruptive element in visual and performing arts, offering opportunities to communicate and express oneself in new ways and reinventing the culture of art. Artificial

intelligence (AI) in visual arts Generative adversarial networks (GANs), neural style transfer, and machine-learning-based image synthesis AI-driven tools can enable artists to create new compositions in visual arts, reinterpret old works, and experiment with intricate visual patterns Brauwers and Frasincar (2021). These systems examine vast collections of artistic image material and train to learn stylistic elements which can be rearranged in novel manners. Through this, artists will be able to play with aesthetics that is not tied to the limitations of the manual methods and combine human imagination and computer abilities. Artificial intelligence is also applied in performing arts to design choreography, produce sound, create interactive installations, and augment real-time performance Rodriguez et al. (2019). Machine-learning algorithms have the potential to generate movement patterns, aid dancers to discover new choreographic opportunities, or dynamically respond to motions made by performers by changing lighting and sound. In music, AI helps to compose, improvise and arrange music, allowing people to collaborate with intelligent systems in music. Also, AI-based motion tracking and VR have pushed theater and dance limits and offered immersive experiences and physical-digital experiences Liu et al. (2021).

2.3. PRIOR STUDIES ON DIGITAL TOOLS IN SCULPTURE

Digital tools in sculpture have been studied in greater depths within the last 20 years, as the use of computational technologies in the creation of sculptures has been increased. Initial research was done on computer-aided design (CAD) and 3D modeling, investigating the effectiveness of this technology in increasing accuracy, simplifying complex geometry, and making prototyping faster. Researchers pointed out that digital modeling allowed sculptors to abandon the physical process of work to a hybrid process of experimentation in a computer and fabrication in reality Cai and Wei (2020). This change brought about research into the manner in which artists bargain between digital and manual abilities in developing modern sculptures. Further work was done on additive and subtractive methods of manufacturing including 3D printing, CNC milling, which have been overtaken as the focus of a number of studio practices. Research emphasized that these technologies enable high-levels of customization and scalability and can be used to create sculptures that were once overly complex or labour intensive to make by hand Zhao et al. (2021). Scientists also studied the impact of digital fabrication on the art authorship which provokes a controversy regarding the place of machines in the creative process. Table 1 is an overview of the major research describing the changing impact of AI on sculpture. The newer research examines AI-based tools, including generative design algorithms and robotic sculpting systems. The research articles highlight how machine learning can be transformative with regard to ideation, form generation, and automation.

Table 1

Table 1 Summary of Literature Review

Technology Used	Methodology	Domain	Limitations	Relevance to Sculpture
AI generative algorithms	Case study	Digital artists	Limited to digital forms	Shows potential for generative sculpture
Machine learning Xue et al. (2020)	Experimental	Media artists	Requires high computational resources	Demonstrates AI's aesthetic influence
Robotic arms	Practice-based	Hybrid artists	High learning curve	Relevant for robotic sculpting integration
AI + 3D printing Walczak and Cellary (2023)	Mixed-method	Design labs	Not sculpture-specific	Suggests new fabrication workflows
Neural modeling tools	Survey + testing	Designers	Reduces manual engagement	Supports conceptual skill enhancement
CAD modeling	Interviews	Sculptors	Less tactile experience	Bridges digital + manual skills
CNC robotic tools	Field study	Stone sculptors	High equipment cost	Direct application in stone carving
Adaptive learning systems	Experimental	Art students	Limited artistic nuance	Shows educational impact
3D scanning + AI Kalniņa et al. (2024)	Practice-based	Contemporary artists	Tools require training	Relevant for traditional–AI integration
Digital tool adoption	Survey	Early-career artists	Reduced manual skill focus	Supports skill adaptation analysis
AI material prediction	Lab testing	Sculptors and designers	Not expressive-focused	Useful for material experimentation
AI suggestion tools	Experimental	Students	Risk of dependency	Links to conceptual development

Generative AI	Qualitative	Professional artists	Ambiguity in authorship	Supports autonomy vs replacement debate

3. METHODOLOGY

3.1. RESEARCH DESIGN (QUALITATIVE, QUANTITATIVE, OR MIXED METHODS)

This paper will use a mixed-methods research design because it will study the effects of AI tools on the development of artistic skills in the field of sculpture. The mixed-methods approach is a specifically appropriate method since it combines the richness of qualitative understanding with the quantifiable trends that can be achieved through quantitative data. To study the live experience of sculptors, perceptions, and creative processes when they operate with AI-driven tools, qualitative methods are appropriate. Interviews, case studies and observed data offer deeper insights into the way artists are striving to find the balance between using traditional craftsmanship and the digital innovation. Simultaneously, quantitative data collection techniques, including structured surveys and the rating scale, provide the possibilities of evaluating more extensive trends in the usage of tools, the development of skills, and attitudes towards AI among different groups of sculptors and digital artists. The statistical data and a thorough narrative description allow approaching the conceptual analysis of the impact of AI on conceptual thinking, craftsmanship, and decision-making in the art of sculptures as a whole. Triangulation can also be supported by this type of hybrid design, which will increase the validity of the results obtained because the results will be compared across various data sources. The mixed-methods framework is also explained by the fact that the topic of the research is interdisciplinary because it lies on the boundaries of art, technology, and education. The role of AI in the development of art is multi-sided, which is why the methodological openness of mixed methods makes it possible to delve into the issue exhaustively and comprehensively.

3.2. DATA COLLECTION METHODS

In order to explore the impact of AI technologies on the development of artistic skills in the sphere of sculpture, the research utilizes four main data gathering techniques: the interviews, surveys, case studies, and direct observation. These complementary techniques make sure that there is depth, accuracy and richness of the context. The interviews with sculptors, digital artists, educators, and developers of AI-tools give a thorough description of the personal experience, creative issues and changing skills demands. The semi-structured types of interviews will provide these participants with an opportunity to discuss their artistic process and allow the researcher to discuss certain topics concerning the integration of AI. A larger group of participants is selected to complete surveys to provide a general attitude, regularity of using AI tools, perceived benefits, and concerns. Surveys enable the gathering of measurable information that can identify trends and distinctions between the various groups of demographics, skills, and artistic backgrounds. Case studies are dedicated to some artists who already use AI technologies in their sculptures: generative design or robotic fabrication. Their descriptions of their workflows, project results and reflective experiences give real-world illustrations of how AI is changing the process of creating and developing skills, both creative and technical.

3.3. SAMPLE SELECTION: SCULPTORS AND DIGITAL ARTISTS

The group of participants in this research is sculptors, digital artists, and hybrid practitioners who use AI tools of different degrees of expertise. Purposive sampling strategy is used to ensure that participants with experiences directly relating to the research objective are used. In this way, the study will be able to focus on the different views of artists who operate in the traditional, digital, and interdisciplinary environments.

Participants include:

Traditional sculptors moving to the digital process will offer their perspectives on how AI transforms the established craftsmanship.

- Digital modelers and sculptors who mostly use computer software and computer-generated methods.
- Artists who actively incorporate AI, e.g. through generative design algorithms, machine-learning-supported modeling or robotic fabrication.
- Educators of art and workshop teachers who know how to train the upcoming artists in both relative and digital methods.

The sample is expected to be balanced between depth and diversity, and it is usually 12 to 20 interview participants and 50-100 respondents in surveys. It is also claimed that geographic diversity is used to indicate international differences in access to digital technologies.

4. THE ROLE OF AI TOOLS IN SCULPTURE

4.1. TYPES OF AI TOOLS USED IN SCULPTURAL PROCESSES

4.1.1. 3D MODELLING

One of the most popular AI-enhanced tools of the sculptural practice in the present-day context is 3D modeling. These systems enable artists to model and manipulate complicated forms in a virtual space and then transfer them into the physical sculptures. Through artificial intelligence-based 3D modeling applications, including Autodesk Fusion 360, Blender combined with AI plug-ins, and ZBrush with machine-learning-based added functionalities, sculptors receive assistance in repetitive computations, forming a design anticipating change, and refining a shape intuitively with smart programming.

Figure 1

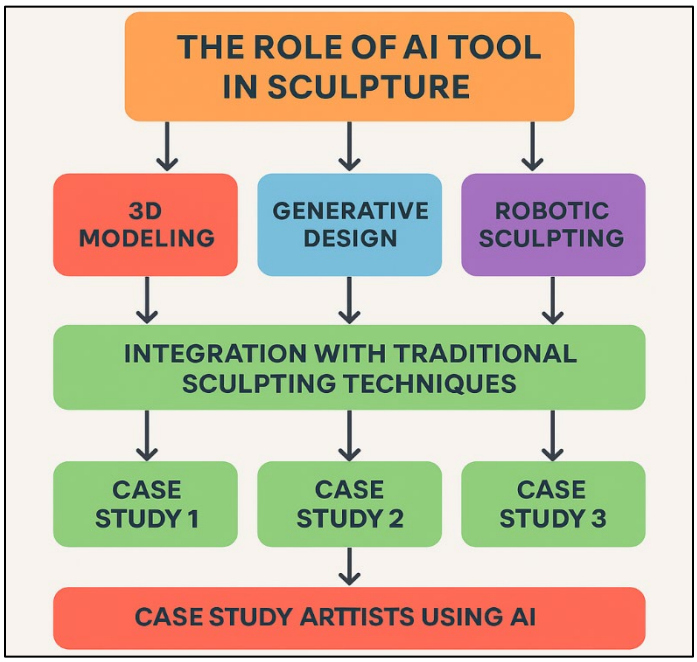

Figure 1 System Architecture of AI Applications in Sculptural Art

AI-powered models help artists to experimnt with iterative changes faster, save time on manual adjustments and increase the accuracy on the whole. In sculpture, AI combines design, fabrication, and creative as illustrated in Figure 1. Among the main benefits of AI-aided 3D modeling, one may note the possibility to create a high-resolution mesh, identify weak points of the structure, and streamline forms to be fabricated. This is especially useful in creating complex or geometrical complex sculptures that would otherwise be hard to imagine and carve by hand.

4.1.2. GENERATIVE DESIGN

Generative design is an artificial intelligence design technique that allows artists to model sculptural form by exploring algorithmic designs instead of hand modeling. Generative design systems, which are developed with the help of machine-learning techniques, include generative design instruments, such as Autodesk Generative Design, Grasshopper plug-ins, and neural networks that generate a variety of design options, provided that the user sets the parameters, which can be shape constraints, material behavior, structural needs, and aesthetic objectives. This gives sculptors a lot of room to experiment and many can be even beyond the means of human imagination or craftsmanship. Generative design is primarily optimized, and its main asset is that it generates a very high level of optimization as well

as novel geometries. The system is able to take into consideration baselines ideas and improve them repeatedly by enabling artists to provide solutions that expose new space relationships, flow schemes or organic shapes. The resulting collaborative process changes the role of the artist to one of creative decision-maker rather than manual form-maker and is selective and evaluative of the results of the computationally generated output.

4.1.3. ROBOTIC SCULPTING

Robotic sculpting is a technique of physically creating sculptures using high degrees of accuracy and uniformity through the use of AI-controlled robotic arms, CNC milling machines and automated carving systems. Such systems read the digital models and convert them into material-removal or additive techniques and allow the creation of complicated forms that can be either labor-intensive or even impossible to do by hand. The improvements of robotic sculpting with AI allow making changes in real time, optimizing toolpath, and making decisions based on material response. Modern-day robotic sculpture is applied with numerous substances such as stone, wood, foam, and clay. Sensors and machine-learning algorithms can be installed on robots that monitor the changes in material density, avoid structural weaknesses and be very precise in refining the details. This both saves on human manpower and enhances the practicality of large projects or highly detailed projects. Robot systems can increase the scale, speed, and precision of artists, which gives them time to concentrate on the development of concepts and the final details.

4.2. INTEGRATION OF AI WITH TRADITIONAL SCULPTING TECHNIQUES

By combining AI and traditional sculptural techniques, a new artistic environment has emerged with manual crafts and computer intelligence existing in harmony. Instead of superseding the classical processes, AI tools are frequently augmented to the creative process of the sculptor to allow the sculptor to think, sharpen ideas and execute them more efficiently and accurately. Sculptors more often than not start with hand-drawn sketches or clay maquettes, which are digitized through 3D scanning technologies. These forms are then developed by AI-generated modeling software that gives these forms alternative forms, better structure, or refined surface details. This virtual refinement is a complement to the feel intuition that the sculptors achieve after many years of material interaction. When a digital model is complete, artists can use robotic fabrication or 3D printing to create crude forms, and then work on them by hand. The repetitive process ensures the sculptor is important in determining the final aesthetic and uses AI to perform complex or repetitive tasks. Conservative processes like chiseling, carving, patination and surface finishing are also at the heart of the creative identity of the piece of art, as the human touch has been maintained.

5. IMPACT ON ARTISTIC SKILL DEVELOPMENT

5.1. ENHANCEMENT OF CONCEPTUAL AND DESIGN SKILLS THROUGH AI

AI tools can also greatly improve the conceptual and design abilities of sculptors by broadening the cognitive and creative structures in which artists would be operating. More conventionally, the concept stage of sculpture had always been one of sketching, modelling, and material exploration, which was time consuming and creative. These initial phases are speeded up and enriched with AI by providing quick prototyping, iterative visualization, and generative opportunities, which are not constrained by the scope of manual ideation. With the use of AI-based modeling platforms, artists can experiment with their form, structure, and the use of space freely to create hundreds of design variants within a few minutes. Moreover, AI as a tool of analyzing patterns, recreating physical actions, and offering alternative solutions stimulates artists to be thinking critically and strategically about their work. This promotes an insight into structure logic, geometry, and interaction of materials. To young sculptors, AI is an effective learning platform where they can experiment with new sophisticated idea-like parametric design, organic form driven by data, and aesthetics based on data. They do not need the technical constraints traditionally linked to these approaches. With less cognitive load on complicated calculations and repetitive modeling processes, AI frees sculptors to be able to explore creatively and focus on narrative purpose. Conceptual thinking becomes, therefore, broader in scope, experimental and interdisciplinary.

5.2. CHANGES IN MANUAL CRAFTSMANSHIP AND TACTILE ENGAGEMENT

The introduction of AI technology into the practice of sculpture cannot but have a certain impact on handcrafting and haptic experience, which are two elements of the traditional sculpture. Although AI can make the process more precise and efficient, it can take away the time artists spend on the actual use of materials. Sculptural processes like robotic milling, AI-assisted modeling, and automated 3D printing remove much of the traditional sculptural process and

interaction with tools by hand. Consequently, there is a notion among some artists that the dependence on digital tools will reduce the richness of material knowledge, embodied skill, and sensual awareness accrued by practicing something through physical means. But the shift does not always mean that the craftsmanship is lost but it is changed instead. Modern sculptors tend to resurrect manual methods when finishing - sanding, beat beating, or assembling pieces created by AI. This mixed process of work preserves the tactile experience of the work and redistributes the human or manual labor to shape expression instead of the laborious formulation. Also, artists note that AI will be able to work on technical aspects and, therefore, give them greater opportunities to devote more time to aesthetic decisions, experiment, and details of craftsmanship.

5.3. INFLUENCE ON CREATIVE DECISION-MAKING AND ARTISTIC AUTONOMY

The use of AI tools in the creative decision-making process of sculptors is becoming an even more significant issue, which also leads to critical questions concerning the autonomy of art. Historically, the choices of sculpture; be it the form creation, or the choice of material, were all born out of the intuitiveness, artistry, and esthetic judgment of the sculptor.

Figure 2

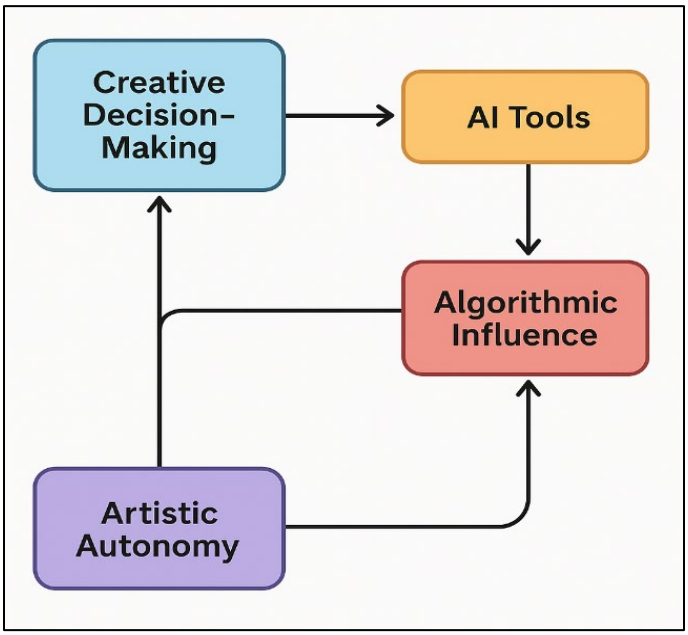

Figure 2 Interaction Between AI Tools, Decision-Making, and Artistic Autonomy

The decision-making space will be more participatory yet more complicated with the possibility of AI systems to produce design alternatives, propose optimizations, and forecast the outcomes. Figure 2 indicates that AI impacts creative decisions and defines artistic freedom. AI opens up new avenues which might not have been discovered by hand research alone and artists reconsider, refine or remake computational proposals.

5.4. INCORPORATION OF AI TOOLS IN ART EDUCATION CURRICULA

The inclusion of AI technologies in art education programs is gaining more and more importance as the modern sculptural process is becoming oriented towards hybrid digital-physical processes. It is now understood in the art institutions that training students to be prepared in the future of the creative industries is by not only imparting traditional craftsmanship, but also by imparting digital literacy. When the AI is being introduced in the sculpture programs, the main issue is not the mere addition of new software, but the need to redesign the pedagogy so that conceptual exploration, technical mastery, and critical approach to the new technologies are balanced. It is possible to add courses about AI-assisted 3D modeling, generative design principles, applications of machine-learning, and robotic fabrication processes so that students could learn how a computational system can affect the design-to-production pipeline. The educators should also deal with ethical and theoretical aspects of AI in arts such as authorship, originality, and human agency. Figure 3 demonstrates that the AI tools can be incorporated into the art education systems. Through

the establishment of a discourse over these topics, the students would be taught how to critically examine the relationship that they have with technology.

Figure 3

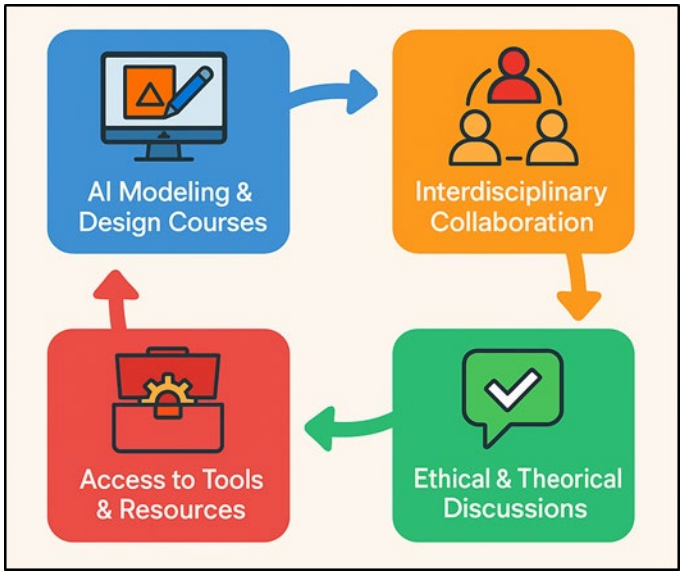

Figure 3 Structure of AI Tools Implementation in Art Education

Moreover, the process of curriculum development cannot take place without interdisciplinary cooperation, where the knowledge of computer science, engineering, and digital media is involved to enhance the learning process of students. In-person studio activities, where AI generated designs are presented in conjunction with more conventional sculpting methods, contribute to a more all rounded skill set of students as well. Incorporating such tools into the institutions, accessibility must also be evaluated by making the use of sufficient software, fabrication equipment, and technical support.

5.5. CHALLENGES AND OPPORTUNITIES FOR EMERGING ARTISTS

New artists face certain threats and prospects in a new phase in the development of AI technologies because they transform the sculptural environment. A technical barrier to entry can be identified as one of the primary issues: the learning process to apply AI-assisted modeling, use generative systems as well as robotic fabrication takes time, resources, and the availability of specialized tools. Learners and novices in the field can be encountering institutional or economic obstacles that inhibit access to sophisticated equipment. The danger of excessive dependence on AI is another risk that can decrease the building of basic manual skills or homogenization of artistic styles due to the tendency towards algorithms. Nevertheless, AIs can benefit the young sculptors despite these challenges. The use of AI allows young artists to rapidly prototype, experiment, and visualize ideas without large physical resources because this technology makes it fast, effortless, and painless to develop. They are also showing them new forms of aesthetics and structural innovations, opening up their creative horizons as shown by generative design platforms.

6. RESULT AND DISCUSSION

The findings show that AI tools play an important role in developing sculptural skills because they increase the ability of concepts and redirect more of the time-honored craftism towards more hybrid digital-manual processes. The artists claimed to have better design efficiency, design structural exploration, and explored creativity with the help of AI-assessed modeling and generative algorithms. Nevertheless, the issue of loss of physical interaction and possible reliance on computer-generated recommendations appeared. In general, the discussion points out to a reciprocal relationship where AI becomes the source of innovation and the challenge in which artists have to be able to balance digital tools and manual skills.

Table 2

Table 2 Usage of AI Tools in Sculpture Workflow (%)

AI Tool / Process	Low Use (%)	Moderate Use (%)	High Use (%)
AI-Assisted 3D Modeling	12%	35%	53%
Generative Design Algorithms	27%	42%	31%
Robotic Milling/Fabrication	40%	38%	22%
Material Simulation Tools	18%	46%	36%

Table 2 data points out the unique trends in the usage of AI tools by sculptors at various points of the creativity process. AI-based 3D modeling has the greatest adoption rate with 53% of artists indicating that they frequently use it. This shows that 3D modeling is now a ubiquitous element of contemporary sculpture, probably because of its affordability, user-friendly features, and the possibility to quickly visualize complicated shapes. Figure 4 indicates the difference in the use of AI tools in the stages of sculpture workflow.

Figure 4

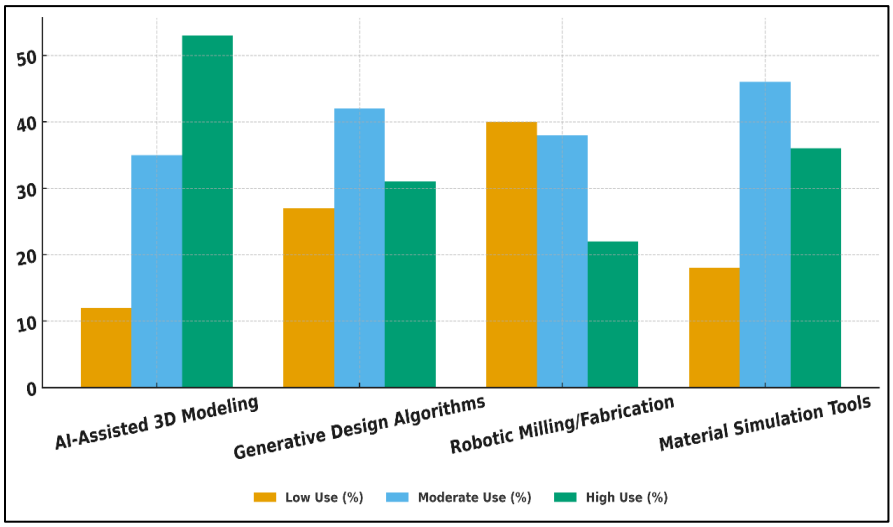

Figure 4 Usage Distribution of AI Tools Across Sculpture Workflow Stages

Generative design algorithms on the other hand have a more balanced distribution with 31% high use and most (42%) reporting moderate use. This implies increased curiosity about algorithmic creativity, but there are sculptors who could be experimenting or learning on these tools. The use of AI tools layering during sculpture production is represented in Figure 5. The lowest percentage of high-use (22%) is shown in robot milling and fabrication, which have barriers in the form of cost, technical complexity and lack of robotic equipment.

Figure 5

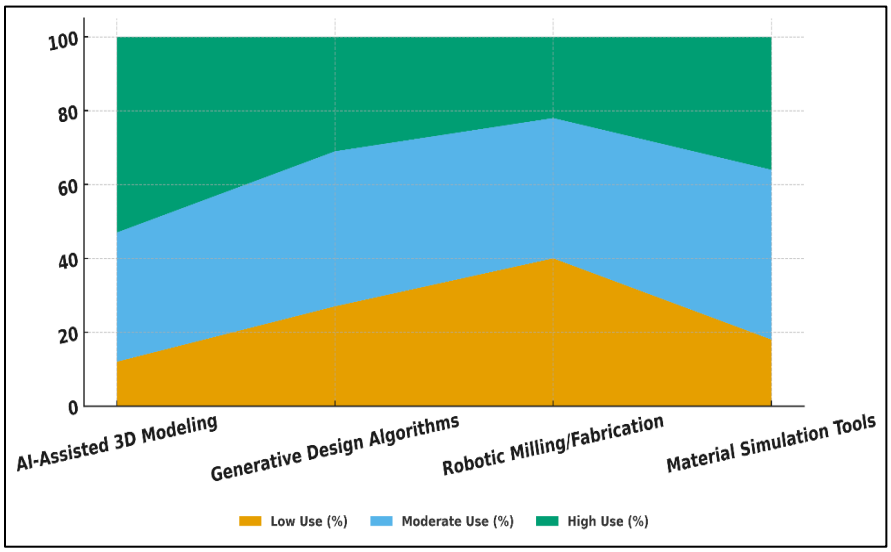

Figure 5 Layered Visualization of AI Tool Utilization in Sculpture Production

Most of the artists might use the conventional fabrication processes or outsource robotic manufacturing. In the meantime, material simulation tools are highly used (36% moderate, 46% high), which also demonstrates their importance in the ability to predict structural behavior and minimise material wasteage.

7. CONCLUSION

The introduction of artificial intelligence into the modern sculptural art is a turning point in the history of the development of the artistic skills. The technical and conceptual possibilities of artists have been expanded due to the AI tools, including generative design systems, and robotic fabrication. This study shows that AI contributes to creative ideation, speeding up the work of prototyping, and enabling the creation of more complex shapes than was possible before. Consequently, sculptors can challenge the conventional boundaries, experiment with new aesthetic words, and use experimental processes that debrief the conventional ideas of artistry. Concurrently, the research has shown that such technological innovations should be adapted carefully. On the one hand, AI is truly beneficial; however, on the other hand, it confronts sculptors to keep their skills and the sense of materials and touch, which are the main aspects of sculptural identity. The equilibrium between the digital and offline approaches proves to be a decisive element in preserving the autonomy of art. Instead of replacing craftsmanship, AI transfers the role of a sculptor to the role of creative direction, critical assessment and hybrid practice. The school and workplaces will need to be adjusted and change towards a more AI literate training where the previously existing manual skills would not be lost, but would be included in the training programs. On the one hand, AI offers a great opportunity to new artists: it can be used as a potent innovation engine, and it asks them to constantly learn both in the artistic and technological arena.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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