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An AI-Infused Creativity Framework for Human AI Interaction

Asena Kumsal Şen Bayram[1] İnanç Şencan[2]

Abstract

This article proposes an experimental framework that explores human–artificial intelligence interaction through the lens of creativity. The integration of artificial intelligence and art production is examined through themes such as collectivity, archaic human representations, and fragmented readings of history. Inspired by the Co-Design approach used in the architecture, engineering, and construction industries, this framework was tested through the production process of an artwork titled Rest in Pieces. During the design phase, text-to-image applications were utilized, while ChatGPT-assisted 3D printer optimization was used during the production phase. Comprising a total of 161 parts, the artwork was completed in 48 days with the help of 40 volunteers and 17.85 kg of filament. Throughout the process, AI-assisted time planning showed a deviation of only two days. In the final part of the study, the outcomes of the implementation are discussed in the context of time planning, along with its future potential.

Keywords: AI-Infused creativity, AI in art, Digital fabrication, Human-AI interaction in design.

Highlights

- Artificial intelligence and human interaction have been linked to creative production processes in the context of co-design.
- Design and production processes have been experienced with text-to-image and ChatGPT tools.
- The future of AI-supported production has been discussed through time planning.

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Introduction

The origins of creative production lie in the dialectic between *technē* and *praxis*—a tension as old as philosophy itself and yet increasingly relevant in contemporary design and art. *Technē*, in the Aristotelian tradition, is knowledge aimed at production—a craft, a skill, a logic of making. *Praxis*, by contrast, is action imbued with reflection and value, undertaken for its own sake. Artistic practice, historically situated at the intersection of these modes, is not merely about producing objects—it is about generating meaning through the act of making (Aristotle, 2019). In today's computational and posthuman design environment, this dual structure reemerges in unexpected ways. Tools are more than an extension of intention; they interact in shaping it. Material outcomes have become inseparable from cognitive processes.

The first confrontation of *Homo sapiens* with death led to the development of rituals, symbolic actions, and eventually, cave paintings. These were all early attempts to transmit meaning across time, to reach out to futures they could not know, but of which they had a sense of existence they had intuitively. Death, as both an end and a creative spark, has continually shaped the aesthetic landscape of humanity. Today, however, death no longer comes solely in biological form; it manifests in the accelerated decay of memory, culture, and meaning under conditions of digital ephemerality. While past civilizations built objects to outlive them—monuments, tools, myths—contemporary culture sees creations dissolve almost in tandem with their conception (Baudrillard, 1997).

In this volatile terrain—where, as Berman (2004) suggests, "all that is solid melts into air" and Baudrillard (2003) describes the collapse of the real into the virtual—the role of the artist is no longer stable. It becomes a site of inquiry. How can creative actors resist this entropy? How can artists position themselves in both the timeline of their respective eras and in a trans-temporal zone that resonates with the past while remaining legible to the future?

Jung (1999) proposes one possible answer: the concept of the *archaic human*, a shared collective unconscious through which epochs unknowingly communicate. By turning inward and engaging with this archetypal substrate, creators can generate expressions that transcend linear time and form inter-epochal dialogues (Kosuth, 1991). This *archaic vision* is not a nostalgic imitation, but a speculative and imaginative operation—an attempt to see the present through the eyes of ancient minds and vice versa (Bergson, 2008; Baker, 2020).

Art history captures this form of continuity through *pathosformel*—emotive gestures or forms that persist across cultural transformations, morphing with each new articulation (Gombrich, 1986). In this framework, history is not a sequence but a constellation of affects and ideas (Akay, 2006). As Walter Benjamin's *Passagen-Werk* suggests, tradition is not a burden but a field of potential—a dynamic interplay between archaic symbols and contemporary technologies (Benjamin, 2023). The drive to complete the fragmented whole is not merely aesthetic; it is existential. As Jung (2005) notes, creation is a means by which humans can heal themselves by participating in the infinite act of world completion.

This deep human urge to 'complete' now operates within the dense information ecologies of Industry 4.0. To effectively engage with the archaic human concept today, artists must reframe it not as a romanticized retreat into the past, but as a speculative interface—a deep structure of collective affect and mythos embedded within human cognition. This requires adopting an archaeological imagination (Foucault, 1969), wherein creators mine cultural strata not to mimic, but to reactivate dormant symbolic codes. By leveraging AI's capacity for pattern recognition across massive data sets, contemporary artists can identify cross-epochal resonances—gestures, forms, or narrative motifs—that persist in the unconscious memory of humanity. Here, the artist becomes a temporal cartographer, using computational tools to stitch together fragments of the archaic with the digital language of now, thereby creating mythopoeic assemblages that speak to both ancestral depth and future uncertainty. In today's design landscape, the separation between ideation and realization is dissolving. Design and fabrication no longer unfold in silos but emerge through integrated, iterative, and increasingly automated processes. *Design-to-Fabrication* (DtF) workflows now act as bridges between digital intention and material outcome, transforming ideas into physical artefacts through computational logic (Anane, 2022). These systems also reveal the limits of unilateral authorship, requiring coordination across disciplines, platforms, and cognitive domains (Skoury, 2024).

In response to this complexity, Co-Design emerges as both a method and a mindset. Integrating Co-Design methodologies into artistic production repositions the artist from autonomous author to distributed facilitator—an orchestrator of hybrid intelligences. This shift enables new forms of material and conceptual agility. For instance, Co-Design frameworks foster adaptive workflows where ideation, feedback, and production are not linear stages but recursive loops. Practically, this transforms exhibition design, public art, and community-based projects into responsive ecosystems. AI tools can process stakeholder inputs, simulate outcomes, and even visualize co-created futures in real-time. Moreover, by embedding non-human agents into the co-design process—such as generative models, sensors, or environmental data streams—artists can create works that are not only participatory but alive: evolving in response to their contexts long after installation.

Originally formalized within the Architecture–Engineering–Construction (AEC) sectors, Co-Design is a participatory approach where diverse stakeholders—including non-designers and increasingly, non-human agents—contribute to both the problem definition and the creative process (Sanders & Stappers, 2008). This framework replaces the notion of singular authorship with distributed agency. As Wagner et al. (2020) outline, Co-Design is structured around four key phases—planning and engineering, construction processes, material systems, and environmental context—each of which must be aligned to enable adaptive, collaborative production (Figure 1).

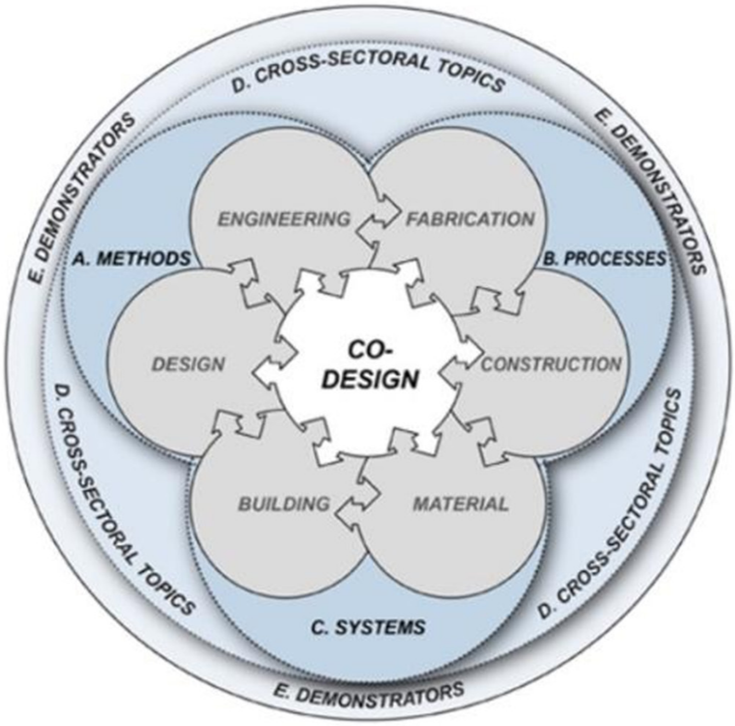

Figure 1: Co-design process (Wagner, 2020).

The majority of existing literature on Co-Design tends to focus on its applications in architecture, engineering, and industrial design (e.g., Wagner et al., 2020; Sanders & Stappers, 2008). Very few studies explore how these collaborative models can be extended into artistic domains, especially in cases where artificial intelligence participates as a creative agent. Furthermore, while several theoretical texts discuss the implications of AI in art, practice-based, interdisciplinary implementations remain limited. This study addresses this gap by presenting both a conceptual framework and an empirical design-to-fabrication (DtF) case that embodies human–AI co-production in a real-world, resource-constrained environment.

When examining similar interdisciplinary processes through the lens of art production, discussions focus on the creativity and trans-temporal continuities of artworks influenced by the impact of artificial intelligence-supported design processes. Therefore, inspired by the workflow and categorisation proposed by Co-Design for the AEC sector, this study aims to describe an alternative and easy-to-apply DtF process for human-AI interactive creative productions within a multidisciplinary framework (Figure 2).

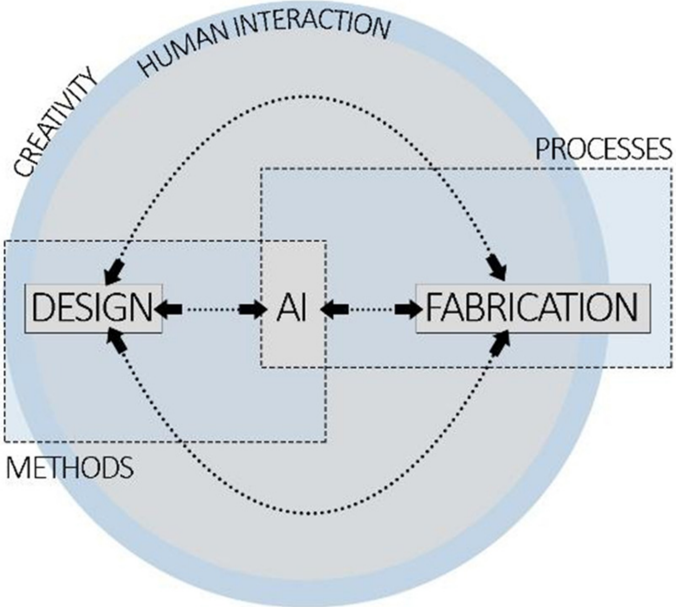

Figure 2: Human-AI interaction framework (Authors).

This research is driven by a central question: How does human-AI collaboration through the Co-Design approach reshape the creative process, particularly in the context of artistic production? This question gains relevance in contemporary design ecologies where AI is no longer a passive tool but an active co-author. Despite the increasing use of generative AI in design, a noticeable gap remains in frameworks that integrate it meaningfully within recursive, participatory creative processes.

Although the proposed process may seem to be addressed at the scale of art production, it encompasses topics that also extend to architecture, such as structural strength, material choice, and design. Thus, it holds the potential to create a general design prototyping DtF example that intersects creative processes integrated into everyday life use through artificial intelligence with digital fabrication.

A Creative Framework Using Human–AI Interaction

Creativity is widely understood as a complex and layered phenomenon—one that involves unconscious associations, sudden insights, iterative refinement, and a sensitivity to context and nuance (Palmiero et al., 2019; Csikszentmihalyi, 1997; Simonton, 1999). From early theories rooted in psychology and cognition (Poincaré, 1913; Miller, 2012) to later frameworks integrating affect, problem sensitivity, and the social environment (Guilford, 1975), the creative act has always been recognized as something emergent and dynamic. In the 21st century, these discussions have taken on new dimensions as artificial intelligence becomes a co-agent in the creative process.

Concepts such as digital creativity (Owen, 1996) and computational creativity (Colton & Wiggins, 2012) have challenged traditional authorship by introducing algorithmic participation into the ideation process. The ability of AI systems to generate vast quantities of variations, detect latent patterns, and even make initial aesthetic choices expands the creative toolkit available to human designers.

While debates persist about the nature and authenticity of machine-generated creativity (Boden, 1998; Dartnall, 1994), current research increasingly points to interactive creativity (a model in which humans and AI systems engage in mutual feedback loops) as a productive and powerful framework (Fischer & Nakakoji, 1994; Miller, 2019; Anantrasirichai & Bull, 2020).

In this study, creativity is not treated as a unidirectional process but rather as a circular system involving continuous feedback between human and artificial intelligence. This interaction unfolds across two distinct yet interconnected domains: design and fabrication. Each domain acts as a site of negotiation, where intent, tool, and outcome co-evolve in real-time.

In the current techno-social landscape, designers must navigate a complex spectrum between individual expression and collective authorship. The rise of AI blurs the boundaries between intuition and computation, as well as authorship and influence. The challenge is no longer how to protect the self from dilution, but how to design interfaces—conceptual, technical, and social—that allow individual voices to resonate within complex systems. This means cultivating what Yuk Hui calls *cosmotechnics*—technological practices grounded in cultural specificity and ethical reflection.

One practical strategy is the adoption of modular authorship: a framework where creators design components rather than wholes, allowing others—humans or machines—to assemble, remix, or reinterpret them. Another is to embrace meta-design: designing the rules, constraints, or generative logics rather than static outcomes. These approaches maintain a personal creative ethos while embedding it within a larger, mutable structure. As generative AI becomes increasingly conversational, multimodal, and anticipatory, designers must not only steer the ship but also relinquish control at key moments—letting the system surprise, provoke, and co-author meaning.

Given the growing accessibility of generative tools and their affinity with linguistic input, this research focused on text-to-image AI applications as the primary medium of design experimentation. These tools, built upon architectures such as GANs, RNNs, and diffusion models, have transformed what it means to visualize an idea. Early explorations in the pre-2010 period produced rudimentary results.

However, the development of models like StackGAN (2016) and AttnGAN (2017), which introduced layered generation and attention mechanisms, significantly enhanced output fidelity. More recent frameworks, such as

OpenAI's CLIP (2021), have pushed the frontier further by enabling image-text embedding spaces, giving rise to tools like DALL·E, Stable Diffusion, and Midjourney—the latter being the platform of choice for this study (Hertzmann, 2022).

Midjourney, with its nuanced prompt sensitivity and iterative refinement capabilities, was used to generate speculative image content based on conceptual and symbolic themes. These visuals served not merely as illustrations but as provocations, sparking new aesthetic paths, associations, and material decisions. In this sense, AI did not replace the designer; it extended the designer's *intuition* by multiplying the imaginative field.

In recent years, tools such as Midjourney, DALL·E 2, and Stable Diffusion have become increasingly integral components of iterative design workflows, supplementing ideation (Hertzmann, 2022; Liu et al., 2023). For example, Liu et al. (2023) demonstrated how Midjourney was utilized in collaborative fashion design processes that involved both designers and clients, integrating semantic prompts with real-time feedback loops. Similarly, Kim et al. (2022) explored how generative AI facilitated participatory urban design by visualizing citizens' input through synthesized images. These applications illustrate how AI has transcended static tool status and become a mediating interface for co-creation. The current study builds upon this trajectory by embedding such tools into both conceptual ideation and technical realization within a single, end-to-end production framework.

While the design phase leveraged generative models, the fabrication phase turned to a more pragmatic implementation of artificial intelligence. Given the technical constraints of the project context—namely, limited access to high-end 3D printing AI software—a creative workaround was employed. Instead of relying on industry tools such as AutoOED, PrintRite3D, or PrintNanny, the research utilized ChatGPT to write custom logic for optimizing 3D printing workflows.

Specifically, ChatGPT was prompted to write a Grasshopper Python script capable of classifying a large number of parts into subgroups based on approximate weight balance, aimed at evenly distributing workload across a limited number of 3D printers. This optimization proved critical for time-sensitive, multi-piece production, enabling a more efficient sequencing of prints while reducing bottlenecks.

The process thus illustrated not only the versatility of AI in low-resource environments but also its potential as a collaborative agent in practical problem-solving. In contrast to pre-packaged software, the AI here was *recruited* into the process by a human operator with minimal coding experience, further emphasizing the democratizing potential of this creative framework.

Implementation of the Framework: Rest in Pieces Project

The Rest in Pieces Project represents a multidimensional experiment at the crossroads of art, technology, and historical reflection. Situated within a broader inquiry into the role of artificial intelligence in creative production, the project focused on the reinterpretation of a Kline-shaped sarcophagus dating back to the 2nd century AD from the ancient city of Kelenderis—currently housed in the Silifke Museum (Figure 3). This object, with its ritual, symbolic, and material weight, provided the ideal anchor for a trans-temporal and human–AI collaborative design process. The physical artifact was first digitized using Luma AI, a tool capable of high-resolution photogrammetric scanning (Figure 4).

Figure 3: Kline-shaped sarcophagus (Photo Credit: Ahmet Rüstem Ekici).

Figure 4: Left: Scanned sarcophagus with Luma AI. Right: Modified model with AI (Photo Credit: Ahmet Rüstem Ekici and Hakan Sorar).

Once digitized, the model became a canvas for interpretive modification by the artist duo. This phase marked the first critical point of AI integration, where Midjourney was employed to generate speculative and symbolic visual content, specifically for the sarcophagus's side panels. The prompts typically followed a structure that combined symbolic language with visual descriptors—for example: "funerary architecture ornamented with archaic dogs and dream-like historical fragments, inspired by Anatolian mythology, marble texture, cinematic lighting". Through iterative prompt tuning and seed variation, over 200 visual variants were produced. Selections were refined based on thematic resonance and panel geometry compatibility. The top portion, meanwhile, incorporated body scans and 3D dog models, forming a personalized, hybrid visual language.

The AI-generated imagery was refined using Photoshop infill, processed through Depthmap converters, and ultimately transformed into printable 3D geometry via Blender (Figure 5).

Figure 5: AI-generated side panel image of sarcophagus (Photo Credit: Ahmet Rüstem Ekici and Hakan Sorar).

The result was not a reproduction but a reinterpretation—one that merged archaic aesthetics with digital imagination, channeling pathosformel and collective memory through computational means.

Although the choice of 3D printing was influenced by the technical constraints of the hosting university's lab, it also aligned with the project's ethos: the maximization of human–AI interaction across both conceptual and material dimensions. The final artwork (Figure 6) consisted of 161 individually printed components, assembled with the help of seven 3D printers and the participation of 40 individuals, blending distributed labor, algorithmic planning, and analog craftsmanship.

Figure 6: Final production in 1/1 scale (Photo Credit: Asena Kumsal Şen Bayram).

To meet the exhibition deadline, a 50-day timeline was meticulously developed, allocating 30 days for production and 20 days for assembly and post-processing. The entire sequence was informed by a ChatGPT-generated Grasshopper Python script, which grouped components based on estimated printing time and material volume. ChatGPT 4 was prompted using natural language queries such as: “Write a Python script in Grasshopper to group STL parts based on estimated volume and weight for balanced printing across multiple machines.” The resulting script was iteratively tested and improved via conversational adjustments. The full script’s core logic included: (1) mesh volume calculation, (2) bounding box approximation for weight estimation, and (3) clustering parts using k-means based on output ranges.

The script was used inside Grasshopper (version 1.0, Rhino 7), and exported G-code files were sliced using Ultimaker Cura 5.3.1 with custom profiles. Infill percentages, layer height (0.2 mm), print speed (45 mm/s), and nozzle temperatures (210–220°C) were adjusted per printer type. The components were categorized into three main sets: base (32 pieces), walls (65 pieces), and upper lid (64 pieces), and subdivided into structural and non-structural groups based on their positioning and load-bearing relevance (Figure 7).

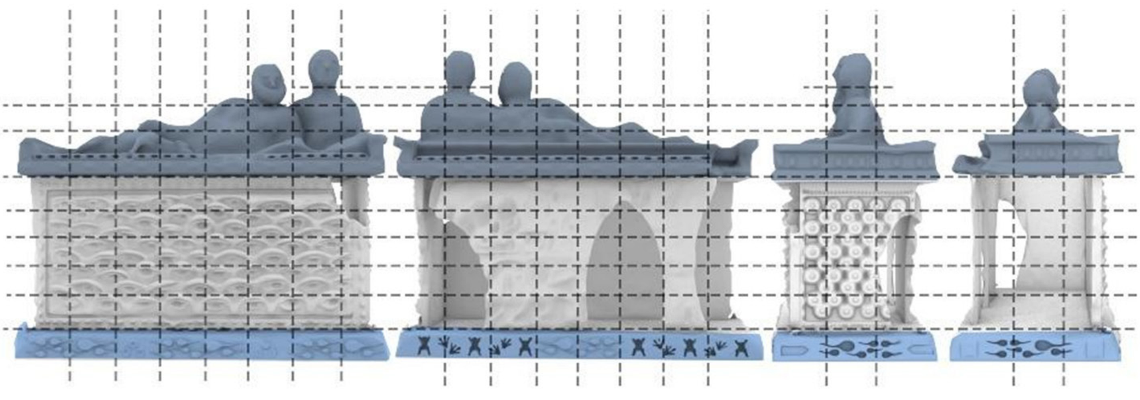

Figure 7: Schematic division of the model for 3D printing (Authors).

During slicing with CURA, infill values were set to 5% for structural elements and 2% for non-structural ones, optimizing for both speed and material use. Time estimations derived from the script projected a 34-day production cycle. However, due to mechanical failures (extruder crashes, G-code errors, performance degradation), the actual process extended to 43 days, as outlined in Table 1.

Table 1: Estimated and real-time duration of pieces in 3D printing process.

	Structural Pieces			Non-structural Pieces			All Pieces			Deviation (%)	Efficiency ratio
	No	Script (Days)	Real (Days)	No	Script (Days)	Real (Days)	No	Script (Days)	Real (Days)		
Base	18	5	6	14	3	4	32	8	10	25	0.8
Wall	38	9	12	27	5	7	65	14	19	35.7	0.74
Up. Lid	18	5	6	46	7	8	64	12	14	16.7	0.86
Sum	74	19	24	87	15	19	161	34	43	26.5	0.79

Although this study includes quantitative data such as part counts, filament weights, and production timelines, its methodological core is qualitative and design-driven. The focus is on iterative co-creation and adaptive system behavior rather than hypothesis testing. Therefore, traditional inferential statistics were not applied. However, descriptive comparisons between estimated and real production durations were performed, and efficiency ratios were calculated to evaluate process consistency. This decision aligns with the goal of presenting a replicable but context-sensitive creative workflow rather than a generalizable statistical model. Future studies with larger sample sizes or multiple test sites may consider integrating formal statistical methods to further evaluate performance variance and optimization outcomes.

Remarkably, the post-processing phase took only 15 days instead of the projected 20, bringing the total project duration to 48 days, with approximately 17.85 kg of filament consumed and an average of 18 working hours per day, demonstrating a high-efficiency, low-cost execution of a highly complex creative operation.

Throughout the process, several key challenges and engineering insights emerged:

- *Infill and Warping:* Low infill values led to warping, particularly in larger, unsupported surfaces. While this was anticipated, the project's tight schedule limited adjustments, highlighting the delicate trade-offs between efficiency and structural precision.
- *Nozzle Temperature Fluctuations:* Inconsistent filament finishes (matte vs. glossy) were attributed to inaccurate thermistor readings across different printers. While optimal calibration would have involved individualized temperature tower tests, time constraints led to handling these inconsistencies in post-processing.
- *Joint System Engineering:* A custom male–female joint system with 45°

horizontal and 60° vertical angles was developed to enable clean assembly, leveraging overhang tolerances while avoiding support structures—an elegant solution that merged structural logic with digital craftsmanship.

- *Filament Management:* Efficient use of 1kg and 3kg spools was planned in advance based on print weight predictions, minimizing downtime and filament waste.
- *Flow Rate & Speed Optimization:* Each printer's flow rate was calculated using its nozzle and hotend specs, allowing speed calibration per machine, balancing print speed and layer fidelity.
- *Tolerance Tuning:* A rigorous round of tolerance testing across all printers ensured seamless joinery. Adjustments were made at the modeling level to account for machine-specific variations, reinforcing the necessity of machine–design feedback loops in DtF processes.

The Rest in Pieces Project stands as a compelling proof of concept for the proposed framework. It demonstrates that even within technical and temporal limitations, a hybrid creative ecosystem—anchored by human agency and enhanced by AI capabilities—can yield complex, culturally rich artifacts. Far from replacing the artist, AI acted as a responsive, generative partner, optimizing processes, enabling new visual languages, and facilitating decision-making in conditions that demanded agility.

This approach also underscores a deeper philosophical point: creativity, when viewed as a distributed phenomenon, does not diminish human uniqueness—it expands it. The ability to integrate memory, myth, materiality, and machine intelligence into a singular, physical output offers a vision for future practices where intuition and algorithm, ritual and code, are not opposites, but collaborators.

Conclusion and Discussion

Artificial intelligence, when integrated as a co-creative partner rather than a mere tool, reveals its true potential in expanding the boundaries of human imagination. This research demonstrates that AI-powered creativity is not a replacement for human intuition, but a catalyst—amplifying ideation, optimizing workflows, and enabling creative expression under constraints that would otherwise hinder production.

The analysis of projected versus actual fabrication times offers further validation of the proposed framework's reliability. Although minor deviations occurred—averaging around 26.5% across all parts—the efficiency ratios remained relatively high (0.74–0.86), especially given the use of consumer-grade 3D printers and a volunteer-based production team. These figures suggest that even simple prompt-based scripting through AI can yield production estimates with acceptable accuracy, enabling effective scheduling in resource-constrained contexts. Such quantitative consistency reinforces the potential of human–AI co-design not only as a conceptual model but as a viable operational strategy.

When compared to similar human–AI collaborative art projects, this study presents two distinctive features. First, unlike high-budget projects such as Refik Anadol's *Machine Hallucinations*, which rely on industrial-scale GPU clusters and proprietary datasets, this research demonstrates what is possible within modest hardware environments. Second, whereas many generative art projects stop at image creation, this work extends into full-scale physical production, integrating AI into material decision-making and logistical planning. This end-to-end approach—where AI is involved in both design ideation and fabrication optimization—offers a holistic model rarely seen in existing literature.

Throughout the implementation of the proposed framework, the synergy between human agency and AI-enabled systems allowed for an agile, adaptive, creative process. Despite facing numerous logistical and technical challenges, the actual production timeline only deviated by two days from the AI-estimated schedule. Upon further analysis, this discrepancy was not attributed to the limitations of the AI logic itself, but to hardware fatigue—an unforeseen result of prolonged use of consumer-grade 3D printers under intense workloads.

Importantly, these unexpected disruptions were not only addressed but also integrated into the system through a responsive workflow. Minor script revisions, prompted through ChatGPT, allowed the fabrication sequence to be re-optimized in real time. What initially seemed like a breakdown ultimately became a feedback mechanism, reinforcing the circular, adaptive logic at the heart of the proposed human–AI interaction model (Figure 8). In this sense, error itself became creative fuel, enriching rather than destabilizing the process.

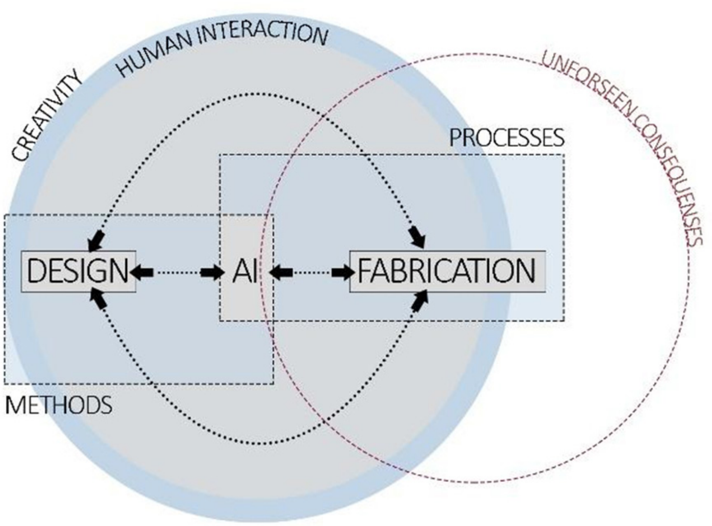

Figure 8: Framework modification by integrating the effect of unforeseen consequences (Authors).

One of the most valuable insights from this study is the accessibility of AI-assisted scripting and optimization. The fact that individuals with limited coding experience were able to co-develop and adapt Python scripts through natural language interaction suggests a democratizing shift. It repositions AI from a high-barrier tool for experts to a creative collaborator for novices, lowering the threshold for entry into computational design practices.

Similarly, the design phase—rooted in text-to-image generation—demonstrated the potential of web-based AI platforms to diversify creative outputs and liberate design ideation from traditional representational limitations. While the project intentionally abstained from entering the theoretical debates surrounding the ontology of AI art, it nonetheless offers a compelling example of how creative authorship can be reconfigured through accessible, iterative AI interaction.

Most crucially, this work shows that even modest technical infrastructure can yield high-impact outcomes when embedded within a thoughtful and flexible framework. However, the limitations also point to future possibilities: a 3D printing farm with standardized hardware, integrated camera monitoring, real-time feedback systems, and closed-loop dataflow between design and production phases could radically enhance the scope, speed, and sophistication of such interdisciplinary projects.

In sum, the framework developed and tested in this research highlights the evolving role of AI in design and fabrication not as an externalized service, but as an embedded epistemological partner—one that reshapes not only how we create, but how we think about creating. This model suggests a shift from linear authorship to co-authored emergence, from isolated craftsmanship to networked praxis, and from static production to responsive, living systems of creativity. In this light, the integration of AI in creative workflows should not be seen as a trend, but as a transformation—a new stage in the history of human imagination, now augmented by machine intelligence.

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The artwork design belongs to Ahmet Rüstem Ekici and Hakan Sorar. All images related to the artwork design used in this article are used with the permission of the artists. The filament supply sponsor for the project is Marshall Global Logistics. The project production took place in the laboratory of Istanbul Technical University (ITU) with permission, with the participation of students from ITU and Maltepe University, academic staff of ITU, and volunteers. Everyone involved in the project has provided written consent for using their productions in the article. We extend our sincere thanks to everyone involved in the project.

Ethical Statement (Etik Beyan)
This study does not require ethics committee approval (Bu çalışma, etik kurul izni gerektirmemektedir).

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İnsan-YZ Etkileşimi için Yapay Zekâ ile Zenginleştirilmiş bir Yaratıcı Çerçeve

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Özet

Bu araştırma, insan ve yapay zekâ etkileşimini yaratıcılık üzerinden ele alan deneysel bir çerçeve önermektedir. Sanat üretiminde yapay zekânın entegrasyonu; kolektiflik, arkaik insan temsilleri ve parçalı tarih okumaları gibi temalar üzerinden sorgulanmıştır. Mimarlık-mühendislik-inşaat sektörlerinde kullanılan Co-Design yaklaşımından ilhamla geliştirilen bu çerçeve, Rest in Pieces adlı sanat eserinin üretim süreciyle test edilmiştir. Tasarım aşamasında text-to-image uygulamaları, üretim sürecinde ise ChatGPT destekli 3D yazıcı optimizasyonu kullanılmıştır. Toplam 161 parçadan oluşan eser, 48 gün içinde, 40 gönüllüyle ve 17.85 kg filament kullanılarak tamamlanmıştır. Süreç boyunca AI destekli zaman planlaması sadece iki gün sapma göstermiştir. Çalışmanın sonunda sürecin zaman planlaması üzerine yapılan okumada uygulamanın sonuçları gelecek potensiyellerle birlikte tartışılmaktadır.

Anahtar Kelime: Yapay zekâ ile zenginleştirilmiş yaratıcılık, Sanatta yapay zekâ, Dijital fabrikasyon, Tasarımda insan-yapay zekâ etkileşimi

Öne Çıkanlar

- Yapay zekâ ve insan etkileşimi, Co-Design bağlamında yaratıcı üretim süreçleriyle ilişkilendirilmiştir.
- Tasarım ve üretim süreçleri, text-to-image ve ChatGPT araçlarıyla deneyimlenmiştir.
- Zaman planlaması üzerinden, yapay zekâ destekli üretimin geleceği tartışılmıştır.

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