

## Artificial Intelligence and Fashion Design: Between Innovation and Identity Blur

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### Abstract

Technology is considered the language of the modern era, and one of its most prominent manifestations is artificial intelligence, which simulates human mental capabilities through computer tools and software. AI includes cognitive tasks such as thinking, learning, problem-solving, decision-making, and understanding human language, developing creativity by generating new ideas or products that simulate human creativity.

The importance of AI is demonstrated in its impact on various areas, particularly in fashion design. AI tools and programs are significantly aiding both new and experienced designers by fostering creativity, forecasting fashion trends, and enabling the creation of innovative designs that can surpass traditional human capabilities.

However, the principle of originality remains one of the most important principles of design, it is what gives the design its identity and originality. The dilemma of fashion design with AI and the human element in terms of the cultural identity of fashion design.

Where AI Design programs produce designs that do not carry the same cultural weight or spiritual value that the designs carry as human designs inspired by traditional motifs and heritage arts, AI relies on algorithms that reinterpret cultural patterns and symbols in a way that is different from the original motifs, leading to designs that are blended with elements from multiple cultures and lose their authenticity.

This research emphasizes the importance of AI-generated designs from two perspectives, the innovation and renewal provided by AI tools, and the blurring of cultural identity in fashion design.

### Keywords:

Artificial Intelligence, Fashion Design, Innovation, Cultural Identity

### الملخص

تُعتبر التكنولوجيا لغة العصر الحديث، ومن أبرز مظاهرها الذكاء الاصطناعي، الذي يُعد محاكاةً للقدرات الذهنية البشرية بواسطة الأدوات والبرمجيات الحاسوبية. ويشمل الذكاء الاصطناعي مهامًا مثل التفكير، والتعلم، وحل المشكلات، واتخاذ القرارات، بالإضافة إلى فهم اللغة البشرية وإنشائها، بل ويتعدى ذلك إلى الإبداع، من خلال توليد أفكار أو منتجات جديدة تُحاكي الإبداع البشري.

وتبرز أهمية الذكاء الاصطناعي في تأثيره على مختلف مجالات الحياة والصناعة، وقد شهد مجال تصميم الأزياء تحولات جوهرية في ظل التطور السريع لتقنيات الذكاء الاصطناعي كالعديد من الأدوات والبرمجيات التي تعتمد على دعم المصممين سواء المبتدئين أو المحترفين، حيث باتت هذه التقنيات تلعب دورًا متزايدًا في دعم عمليات الإبداع والتنبؤ باتجاهات الموضة وإنتاج تصاميم مبتكرة تتجاوز قدرات المصمم البشري التقليدي .

ومع ذلك يظل مبدأ الأصالة من أهم مبادئ التصميم، فهو الذي يمنح للتصميم هويته وجذوره الفنية. وهنا تبرز إشكالية الأزياء المصممة بالذكاء الاصطناعي والعنصر البشري من حيث الهوية الثقافية للزي، حيث تنتج البرامج تصاميم لا تحمل نفس الوزن الثقافي أو القيمة الروحية التي تحملها التصاميم البشرية المستلهمة من الزخارف والفنون التراثية. فالذكاء الاصطناعي يعتمد على خوارزميات تُعيد تفسير الأنماط والرموز الثقافية بشكل مُغاير للزخارف الأصلية، مما يؤدي إلى تصاميم ممزوجة بعناصر من ثقافات متعددة تُفقد أصالتها.

وعليه جاءت فكرة هذا البحث لتسليط الضوء على التصاميم المُنتجة بالذكاء الاصطناعي من زاويتين مختلفتين من منطلق التوازن بين الابتكار والحفاظ على الأصالة التراثية: أولاً الابتكار والتجديد التي توفرها أدوات الذكاء الاصطناعي، وثانياً طمس الهوية الثقافية في مجال تصميم الأزياء.

### الكلمات المفتاحية:

الذكاء الاصطناعي، تصميم الأزياء، الابتكار، الهوية.

## 1. Introduction

Creativity is the heartbeat of fashion, with designers drawing inspiration from a multitude of sources to create mood boards. Some find inspiration in tangible objects like landscapes, architecture, or even a typeface, while others explore abstract concepts like texture, light, or a time period to ignite their imagination.

Fashion has always been more than just fabric—it's a language, a canvas for self-expression, and a reflection of cultural identity. But as technology advances, so does our relationship with clothing. Enter artificial intelligence (AI), which is reshaping not only what we wear but also how we define ourselves through fashion.

AI can revolutionize the design process by automating tasks, predicting trends, and personalizing customer experiences. The integration of AI in fashion design raises concerns about the cultural identity of garments. AI-generated designs may lack the cultural weight and spiritual value of human-made designs inspired by traditional motifs and arts, potentially diluting cultural heritage and authenticity. AI algorithms can reinterpret cultural patterns and symbols in ways that differ from their original meaning, leading to designs that blend elements from multiple cultures and lose their unique identity.

This dynamic highlights how AI is revolutionizing fashion, simultaneously offering unprecedented creative opportunities while challenging our understanding of identity and the preservation of cultural authenticity in design.

## Research problem:

- How can the fashion design field benefit from the innovation provided by artificial intelligence while maintaining the unique cultural identity and authenticity that are the essence of purposeful design?

**Research objectives**

- Examining how artificial intelligence can support innovation in fashion design while preserving cultural authenticity.
- Exploring how the use of AI can alter or obliterate cultural identity and authenticity in fashion design.
- How to balance technological advancements with the preservation of cultural heritage and authenticity in future fashion design.

**Research significance**

- Raising awareness about not relying on AI programs without considering the designer's cultural background, especially for beginners.
- AI programs help save effort and time in creating new designs, especially during the brainstorming phase.

**Research hypotheses**

The researcher assumes that:

- There is a positive impact of using AI tools and technologies on innovation in fashion design.
- The influence of artificial intelligence on cultural identity in fashion design varies according to how the technology is implemented and the level of cultural awareness of the designer.
- AI-generated designs reinterpret traditional symbols and motifs in ways that may differ from their original cultural meanings.

**Research limitations**

- Ancient Egyptian civilization
- Coptic civilization

**Research methodology**

- Analytical method.
- Descriptive method.

**Research Tools**

- Midjourney
- Leonardo AI

**Theoretical framework:****2. Artificial Intelligence and Creativity**

Artificial Intelligence (AI) has emerged as a transformative tool in fashion design, enabling data-driven decision-making and predictive modeling. AI techniques such as machine learning (ML), neural networks (NNs), fuzzy logic, and genetic algorithms (GAs) can analyze vast datasets, simulate human intelligence, such as learning, problem-solving, and pattern recognition in creative fields. (O'Connell, Mark, 2004)

## 2.1. Generative design

A branch of AI known as generative AI focuses on teaching robots to create original and innovative material. Unlike traditional AI, which functions according to preset rules, generative AI may learn from data and develop content on its own. This technology uses complicated algorithms and neural networks to identify patterns and generate outputs that are similar to human ingenuity.

Generative design is a powerful approach to product development that leverages algorithms and computational power to explore numerous design possibilities and optimize outcomes. (<https://techpacker.com>)

Generative design enhances product development by providing designers with a powerful tool to explore, optimize, and innovate in the early stages of the design process. It accelerates the generation of high-quality designs, promotes efficiency, and enables the creation of products that are both functional and aesthetically pleasing.

### Here's how generative design helps in product development:

- **Exploration of Design Space:** Generative design algorithms can rapidly explore a vast design space, considering a wide range of parameters and constraints. This enables designers to consider innovative solutions and uncover design possibilities that may not be immediately apparent through traditional methods.
- **Optimization of Designs:** Generative design aims to optimize designs based on specific criteria, such as weight reduction, structural integrity, or material usage. The algorithms can iteratively refine designs to meet performance goals, resulting in more efficient and effective products.
- **Time and Cost Efficiency:** By automating the design exploration process, generative design saves time and reduces the need for manual iterations. This efficiency is particularly valuable in industries with tight deadlines and cost constraints.
- **Iterative Feedback Loop.** Generative design allows for a continuous feedback loop between the algorithm and the designer. Designers can input their preferences and constraints, and the algorithm refines the designs accordingly. This iterative process helps in achieving the desired outcomes. (<https://techpacker.com>)

## 3. Innovation in Fashion Design

Innovation in fashion design involves using new technologies, materials, and approaches to create unique and sustainable designs, while also enhancing the consumer experience through virtual and augmented reality. This includes leveraging AI for trend forecasting, personalized shopping, and efficient design processes, as well as exploring sustainable materials and production methods. (Y. Chen et al., 2023)

AI programs such as Midjourney, Leonardo Ai, Adobe Sensei, and CLO 3D, enable designers to simulate garments, predict trends, and visualize creative concepts without the constraints of physical materials. This shifts the focus from craftsmanship to conceptualization and efficiency, fostering a new era of digital fashion innovation.

### 3.1. Creativity is a fundamental feature of human intelligence

Creativity is a fundamental feature of human intelligence and an inescapable challenge for AI. Even technologically oriented AI cannot ignore it, for creative programs could be very useful in the laboratory or the market-place. And AI-models intended (or considered) as part of cognitive science can help psychologists to understand how it is possible for human minds to be creative.

Creativity is not a special “faculty”, nor a psychological property confined to a tiny elite. Rather, it is a feature of human intelligence in general. It is grounded in everyday capacities such as the association of ideas, reminding, perception, analogical thinking, searching a structured problem-space, and reflective self-criticism. It involves not only a cognitive dimension (the generation of new ideas) but also motivation and emotion, and is closely linked to cultural context and personality factors. Current AI models of creativity focus primarily on the cognitive dimension.

A creative idea is one which is novel, surprising, and valuable (interesting, useful, beautiful.). But “novel” has two importantly different senses here. The idea may be novel with respect only to the mind of the concerned individual (or AI-system), so far as we know, to the whole of previous history. The ability to produce novelties of the former kind may be called P-creativity (P for psychological), the latter H-creativity (H for historical). P-creativity is the more fundamental notion, of which H-creativity is a special case.

AI should concentrate primarily on P-creativity, in a powerful manner, then artificial H-creativity will occur in some cases-indeed, it already has, as we shall see. (In what follows, I shall not use the letter-prefixes: usually, it is P-creativity which is at issue.) (Margaret A. Boden,1998)

### 3.2. Midjourney Ai vs. Leonardo Ai

**Table 1.** Key Differences between Midjourney Ai vs. Leonardo Ai

(Yıldırım, Erdem.,2023)

| Feature/Aspect        | Midjourney                              | Leonardo AI                                  |
|-----------------------|-----------------------------------------|----------------------------------------------|
| <b>Interface</b>      | Primarily Discord-based                 | Intuitive web-based platform                 |
| <b>Artistic Style</b> | Highly artistic, imaginative, distinct  | Versatile, strong in realism, diverse models |
| <b>Customization</b>  | More reliant on text prompts for style  | Extensive parameters, custom model training  |
| <b>Control</b>        | Less granular control over fine details | High degree of granular control              |
| <b>Realism</b>        | Good, but often more artistic           | Excels at photorealism                       |
| <b>Free Tier</b>      | No                                      | Yes (generous daily tokens)                  |
| <b>Community</b>      | Very strong, active Discord community   | Active community, but web-based focus        |
| <b>Target User</b>    | Artists, hobbyists, creative explorers  | Designers, marketers, game devs, businesses  |

## 4. Cultural Identity and Fashion Design

### 4.1. Cultural Identity

Cultural identity refers to the sense of belonging to a particular group culture, shaped by various factors such as ancestry, ethnicity, religion, and social class. It encompasses the beliefs, norms, and practices that connect individuals to their heritage and to each other, often expressed through traditions, clothing, and behaviors. Cultural identity acts as a guiding framework for individuals, influencing their morals, social interactions, and lifestyle choices. In contemporary settings, globalization and technology challenge traditional notions of cultural identity, allowing individuals to blend influences from multiple cultures and redefine their sense of self. (<https://www.ebsco.com>)

Inspiration: Traditional crafts, cultural heritage, history, and indigenous knowledge are good sources of new ideas. Designers, artists, and inventors are likely to draw from their own cultural heritage to create unique and meaningful products, services, or works of art.

### 4.2. Identity Blur

In the context you describe, "identity blur" refers to the phenomenon where distinct cultural identities become less defined, eroded, or even erased due to the forces of globalization and advancements in technology, particularly Artificial Intelligence. This blurring is not just about the lines between cultures, but also the increasing difficulty in defining what constitutes a stable, identifiable "self" in a rapidly changing world. ([WWW.UNESCO.ORG](http://WWW.UNESCO.ORG))

#### Loss of original meaning:

Were AI systems, for instance, re-construct culture patterns, symbols, or narratives, they might do so without truly understanding their historical, spiritual, or social context. This could lead to designs or works that mimetically replicate cultural elements but miss their original seriousness, sense, or emotional intensity.

#### Blended Identities (Superficial Fusion):

Innovation may design products that synthesize elements of multiple cultures. Cultural fusion is enriching, but "identity blur" occurs if such fusion is superficial and results in a generic or watered-down identity that does not stand for any particular culture. This appears in designs that combine and match up cultural motifs without genuine integration or regard for their contexts.

### 4.3. Fashion Design

Fashion is defined in numerous ways, but essentially, fashion is sewing and cutting clothing and making it a product. Fashion speaks a lot about who we are and where we come from. As every individual has something unique to experience, fashion also has. It becomes a language of sight that we use to speak our distinctiveness and our belongingness to the communities around us. What we wear usually says a lot about us, and it says plenty without anyone uttering a word about us. Fashion then becomes an extremely potent medium to speak not only for individual but also for collective identities beyond its initial function of clothing and safeguarding our bodies. If we talk about the personal level, for some people it is a medium to convey something. (Ashraff, Aliza.,2024)

Fashion has existed as a central aspect of human existence, with its influence seen in the way individuals dress and present themselves to the world and express their identity. Fashion can communicate personal preferences, beliefs, values and culture; hence fashion can be seen as a powerful expression of identity. A person makes a conscious choice to be accommodated in an environment. People then experience an overwhelming feeling of group dynamics rather than individuality and are attracted to the group. (Ashraff, Aliza.,2024)

Fashion is a remarkable medium of cultural communication, conveying values, heritage, and individual identity. Designers make use of cultural symbolism, ethnic craftsmanship, and indigenous fashion aesthetics in creating garments that hold a strong symbolical meaning. This connection between fashion and culture is based on the concepts of authenticity, originality, and rootedness in a particular context. But the application of AI in reinterpretation of cultural symbols may also dilute the purposeful meaning, resulting in decontextualized or superficial designs. (Awale Ibnu Wardaya et al.,2024)

### 5. Balancing Innovation and Authenticity

This study presumes that while AI provokes creativity, it must be followed by conscious human effort to maintain uniqueness and cultural consciousness. Co-creation of theoretical frameworks under which human and machine collaborate rather than conflict with each other, are one direction for the future. This balance is essential to avoid technological progress in fashion at the expense of cultural devastation.

This theoretical framework provides the background for studying the use of AI in fashion design both culturally and creatively. It provides the critique with an awareness of how AI operates as a double-edged sword and can propel creativity to new heights while simultaneously risking loss of identity and authenticity in fashion.

Artificial intelligence, when combined with culturally informed input, can serve as a valuable tool in preserving and even reviving traditional identities. By feeding the system with accurate historical references, symbols, and visual elements, AI becomes an assistant to the designer in reimagining heritage without erasing it.

The designer plays a crucial role in guiding AI's capabilities to reflect rather than replace cultural identity. With balanced use, AI can introduce creative interpretations of heritage while maintaining authenticity, thereby enriching rather than blurring identity.

### Experimental work

This framework addresses the comparative experimental program and its application in the research, by implementing some designs on two artificial intelligence programs, one publicly available (Leonardo) and the other purchased (Midjourney). The same description was entered into the designs, and two sources were used: Ancient Egyptian clothing and Coptic clothing. Designs were adapted from both periods to clarify the research objective. The researchers created a design adapted from Egyptian civilization and the Polar Age to determine the difference between the adapted designs, relying on artificial intelligence, fed by written and drawn descriptions, to emphasize any apparent lack of clarity.

**6. The Ancient Egyptian Civilization:**

Egyptian civilization is one of the oldest and most distinct and clear civilizations because it has its own science, Egyptology, which is a science that specializes in studying the history, language, literature, religions, and arts of ancient Egypt. Therefore, ancient Egyptian decorations, symbols, and letters of their language cannot be manipulated because they are clear and documented, and their clothes were also a clear reflection of the cultural, religious, and social identity of ancient Egypt. These clothes appeared in inscriptions, murals, and statues, carried strong symbolic connotations, and were made with delicate natural materials in line with the climate and beliefs.

Multiple experiments were conducted on each of the two AI programs in the research tools, and five combinations were taken from each program, and these designs are inspired by Pharaonic clothing with a modern twist for the year 2025. These descriptions are designed to blend the luxury and symbolism of Pharaonic dress (gold, linen, hieroglyphics, and symbols such as the Eye of Horus, scarab, key of life, etc.) with modern innovation in cuts, materials, and technologies.

**Each Prompt here attempts to reimagine the Pharaonic costume using:**

- Natural materials: Linen and silk.
- Traditional colors: (gold, azure blue, copper, sand, purple).
- Clear symbols: Scarab, ankh, hawk, lotus flower, eye of Horus.
- Motifs inspired by temples and wall paintings.

## 6.1. Collection 1

| Program    | Midjourney.AI                                                                                                                                                                                                                                                     | Leonardo.AI |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | High-fashion men's, Women's wear look inspired by pharaonic warrior attire, black and gold palette, structured shoulders, digital embroidery of falcons and hieroglyphs, asymmetrical cloak, futuristic fabrics with ancient symbology, 2025 runway-ready design. |             |
| Symbol     |  <p>Fig.1.Falcon and hieroglyphs</p>                                                                                                                                             |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                     |             |

## 6.2. Collection 2

| Program    | Midjourney.AI                                                                                                                                                                                                                                  | Leonardo.AI |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Unisex streetwear set inspired by ancient Egyptian priest garments, beige and terracotta tones, oversized tunic with printed hieroglyphs, wide-leg trousers, modern cuts with sacred symbols like Ankh and Eye of Horus, 2025 fashion forward. |             |
| Symbol     |  <p><b>Fig.2. Ankh, Eye of Horus and hieroglyphs</b></p>                                                                                                      |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                  |             |

### 6.3. Collection 3

| Program    | Midjourney.AI                                                                                                                                                                                                                                                                                                                                                 | Leonardo.AI |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Modern haute couture dress inspired by ancient Egyptian temple art, crafted from fine white linen with hand-embroidered gold thread forming sacred scarabs, papyrus flowers, and solar discs, wide beaded collar in lapis lazuli and turquoise tones, form-fitting silhouette with flowing sheer cape, honoring pharaonic elegance with futuristic tailoring. |             |
| Symbol     |  <p>Fig.3.Sacred scarabs, papyrus flowers, and solar discs</p>                                                                                                                                                                                                              |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                                                                                                                 |             |

#### 6.4. Collection 4

| Program    | Midjourney.AI                                                                                                                                                                                                                                                                                                                                                                  | Leonardo.AI |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Avant-garde fashion piece reflecting ancient Egyptian royalty, tunic-style silhouette in soft papyrus-colored linen, richly decorated with stylized crocodile skin textures (symbol of Sobek), obsidian-black waist belt with golden hieroglyphs etched along the edge, upper chest panel mimicking pharaonic cartouches, blending heritage symbolism with futuristic fashion. |             |
| Symbol     |  <p>Fig.4. Pharaonic cartouches and hieroglyphs</p>                                                                                                                                                                                                                                           |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                                                                                                                                  |             |

## 6.5. Collection 5

| Program    | Midjourney.AI                                                                                                                                                                                                                  | Leonardo.AI |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Simple design outfit from ancient Egyptian identity with linen fabric and trendy 2025.                                                                                                                                         |             |
| Symbol     |  <p><b>Fig.5.Ancient Egyptian Identity with linen fabric</b></p>                                                                              |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>  |             |

### 6.6. Analyzing Pharaonic designs proposed by artificial intelligence programs:

It compares the proposed designs from the (Midjourney.AI) paid program, which is considered more accurate and better in terms of accuracy in design and software than other free programs such as (Leonardo AI), which is available to everyone but with a certain number and then starts with a subscription that is not as expensive as (Midjourney.AI).

The hieroglyphs, the Egyptian falcon (Horus), the ankh, the lotus flower, the eye of Horus, the cartouche, and textiles such as linen and silk are some of the distinctive Egyptian symbols that have been borrowed from Egyptian civilization.

- **Midjourney.AI**

- **The men's design** has Horus on the sleeves with a complete distortion of it as well as the hieroglyphic language, as he used the writing method and not the symbols for writing. The other designs on the kola are accurate and have taken the wings and Horus on the front, but the hieroglyphic writing has been completely obliterated as Kanar, so it does not give the exact shape of the writing, and these designs do not fit the Egyptian men's clothing.
- **The women's design** was employed in Hamsut, long dresses, capes and wide shoulders with Horus' wings on them, as well as the hieroglyphs and the lotus flower on the front, and another design is a distortion of the scarab and the key of life, as well as a complete obliteration of the hieroglyphs and the falcon (Horus).

- **Leonardo AI program**

- **The men's design** used the circular Koula, cap, and Pharaonic dress form, but all the motifs of the source of the quote were obliterated, as well as the eye of Horus, hieroglyphics, and some Pharaonic drawings, and the clothes are not suitable for the Egyptian identity.
- **The women's design** was used in a different way from what it is and therefore is not indicative of the Egyptian identity, while the clothes are 50% suitable for several occasions.

## 7. The Coptic Era

Coptic clothing represents an important aspect of Coptic art, reflecting the religious and social character of the period in which this art spread (from the third to seventh century AD), especially among the Christians in Egypt. Coptic clothing is characterized by a unique style that combines Pharaonic, Greco-Roman, and Byzantine influences.

### The most important characteristics of Coptic clothing:

#### 1. Materials used:

- Fabrics were hand-woven and embroidered or embellished in elaborate ways. Linen was the most common fabric, a continuation of the ancient Egyptian civilization, and wool was widely used, especially in colder regions.

**2. General style:**

- Clothing was loose and comfortable, similar to Roman clothing.
- It often consisted of a tunic, a long shirt with sleeves, reaching to the knee or ankle.
- Men's and women's clothing was similar in general style, but differed in decoration and colors.

**3. Decorations and inscriptions:**

- Trims were an essential part of clothing.
- Pieces of decorative fabric called "clavi," which are decorative bands, were added to the shoulders, chest, or limbs.
- Decorations were used for religious and symbolic purposes, such as (crosses, peacocks, vine leaves, geometric shapes, and symbolic animals such as fish or dove).

**4. Colors:**

- Colors were bright and often used (red - purple (symbol of royalty or spirituality) - blue - green).
- Clothing colors varied according to social class or ecclesiastical role.

**5. Clergy Clothing:**

- Clerics have special clothing that shows their status:
- Long robes (decorated robes or tunic).
- Sometimes a scarf or embroidered cross is added to the chest.
- The use of symbolic colors such as white (purity) and purple (holiness).
- Later, it evolved into a more structured form such as the ecclesiastical garments known today (bonnet, waistcoat, etc.).

**6. Symbolic function:**

- Clothing carried symbolic meanings such as faith, distinctions between classes or religious ranks, and was a means of spreading Christian symbols in an artistic way.

**7. Clothing in murals and icons:**

- Coptic clothing is clearly visible in ecclesiastical murals, ancient textiles found in tombs or monasteries, and icons depicting saints in the same decorative style.

### 7.1. Collection 1

| Program    | Midjourney.AI                                                                                                                                                                                                                                                                    | Leonardo.AI |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Elegant women's fashion dress 2025 inspired by traditional Coptic tunics, featuring rich purple wool fabric, geometric embroidery with Christian symbols (fish, doves), asymmetrical hem, layered design with modern tailoring, ancient motifs reimagined with metallic threads. |             |
| Symbol     |  <p>Fig.6.Christian symbols (fish, doves)</p>                                                                                                                                                  |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                                    |             |

## 7.2. Collection 2

| Program    | Midjourney.AI                                                                                                                                                                                                                                                                           | Leonardo.AI |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Women's contemporary robe inspired by 4 <sup>th</sup> -century Coptic clergy garments, long white cotton with subtle golden Clavi patterns on shoulders and sleeves, detailed with minimalistic crosses and circular halo motifs, sleek urban silhouette, modern luxury spiritual wear. |             |
| Symbol     |  <p>Fig.7. Golden Clavi patterns &amp; minimalistic crosses</p>                                                                                                                                        |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                                           |             |

### 7.3. Collection 3

| Program    | Midjourney.AI                                                                                                                                                                                                                                                   | Leonardo.AI |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | High-fashion runway looks inspired by Coptic iconography, layered tunic dress with sheer textile overlays, peacock feather patterns in metallic blue and green threads, structured shoulders, gold accents, futuristic reinterpretation of religious symbolism. |             |
| Symbol     |  <p>Fig.8. Peacock feather patterns</p>                                                                                                                                        |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                   |             |

#### 7.4. Collection 4

| Program    | Midjourney.AI                                                                                                                                                                                                                                               | Leonardo.AI |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | Tech wear-inspired outfit with ancient Egyptian Coptic roots, digitally printed linen fabric with faint cross and vine motifs, modular design, neutral earthy tones with copper highlights, experimental layering, functional elegance with sacred symbols. |             |
| Symbol     |  <p>Fig.9. Faint cross and vine motifs</p>                                                                                                                                 |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                               |             |

## 7.5. Collection 5

| Program    | Midjourney.AI                                                                                                                                                                                                                                                                        | Leonardo.AI |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Prompt     | A futuristic unisex tunic inspired by Coptic textiles, made of fine linen with bold embroidered Coptic crosses and grapevine patterns, gold and deep burgundy color palette, minimalistic silhouette, fusion of ancient and modern design, 2025 fashion trend, soft glowing accents. |             |
| Symbol     |  <p>Fig.10. Coptic textiles &amp; clothes</p>                                                                                                                                                       |             |
| Collection | <p><b>Midjourney.AI</b></p>  <p><b>Leonardo.AI</b></p>                                                        |             |

### 7.6. Analyzing Coptic designs proposed by artificial intelligence programs:

It compares the proposed designs from the paid program (Midjourney.AI), which is considered more accurate and better in terms of accuracy in design and software than other free programs such as Leonardo AI, which is available to everyone but with a certain number and then starts with a subscription that is not as expensive as Midjourney.AI.

Coptic symbols such as the fish, crosses, dove, and textiles such as velvet, silk, etc. are some of the distinctive symbols of the Coptic era.

- **Midjourney.AI**

- **Men's Design:** The men's designs were minimal for the Midjourney.AI program in the Coptic era designs, and only the crosses were quoted, despite the richness of the source material.
- **The women's design** used pleats, wide and long clothes in most of the designs, the crosses were not altered, while the rest of the decorations were completely obliterated as shown in the designs, and the proposed clothes were not indicative of the Coptic era.

- **Leonardo AI program**

- **The men's design** was adapted from the clothes of priests with the use of crosses, while the leaf motifs and Coptic motifs were done in a fictitious way that does not represent the original decoration.
- **The women's design** is close to the original form of the Coptic motifs but does not indicate them, but the clothes are modest like the clothes of the Virgin Mary in churches and are suitable for the Egyptian identity.

## 8. Results:

**Through the applied and analytical part of the designs proposed by the AI programs, the researchers found the following results:**

- AI programs are rich in creating model outlines because they change the shape of the proposed models by simply entering the same Prompt more than once, which saves time and effort in the design process
- The designer must be culturally aware when using AI programs, especially with regard to the cultural identity of civilizations, as the features of civilizations have been obliterated during quoting.
- While creating designs for Egyptian civilization on the two AI programs, the researchers noticed that the models are only African, which means that they advocate the idea of Afrocentric civilization thieves.
- The AI mutates the basic contours of distinctive motifs, erasing their connection to the art from which they are copied.
- Most AI-proposed garments are unwearable and some of their patrons are not tuned.

## 9. Recommendations:

- It is necessary to study civilizations in depth and the conscious culture of the designer before using AI programs.
- The use of artificial intelligence programs in the case of novice designers in the richness of ideas for models, not to take them into consideration by quoting from civilizations.
- It is essential to recognize that technological advancement, particularly in artificial intelligence, cannot be ignored. However, designers must be equipped with the critical awareness to discern what aspects of these technologies should be adopted and what should be cautiously avoided, in order to preserve cultural identity and maintain design authenticity.

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