

Post-Digital Fashion: The Evolution and Creation Cycle

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Abstract

In the face of the Covid-19 pandemic, the fashion industry was surprised and quickly had to adapt to digital media. However, the relationship between fashion and the multiplicity of screens is not new. Fashion emerged and took its first steps with Cinema, in Modernity. Although there are times when these two systems are further apart from each other, the alliance survived. To analyse contemporaneity, we take as main reference the studies of Gilles Lipovetsky, and his reflections on aesthetic capitalism. The fashion system has many Western fields of life, including art and technology. In this article we discuss how this relationship of fashion adapts and develops with aesthetic capitalism and post-digital art while we analyse representative artefacts from/about fashion. We propose to put the recent digital fashion artefacts in dialogue with post-digital aesthetics theories, discussing the blurred boundaries between the digital and the post-digital, and proposing the instantiation of a post-digital creation cycle applied to fashion artefacts.

Keywords: Post-digital; Fashion; Digital Media Art; Art Creation Cycle.

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Introduction

Post-digital appeared, initially, related to the critical reflection about the concept of materiality of digital aesthetics, where, however, it is not limited to re-materiality. The daily experience of living in a “digital society” encourages the search for new concepts and experiences to understand and define the present.

In post-digital works/artefacts, creativity overlaps with technology, with a desire to blur the boundaries between the physical and the digital while maintaining a pressing digital/computational aesthetic. With the post-digital, the manual, and the handicraft combined with logic and digital languages, allows the creation of aesthetic discourses with own characteristics that cannot be reduced to the epithet of hybrids.

In contemporary fashion as an institution with a model based on innovation, avant-garde, commercial enterprise, social and media recognition, we find great influences of this system in contemporary art. We take as main reference the studies of Gilles Lipovetsky, and his reflections on aesthetic capitalism. Thus, we can consider that we are facing an art-fashion, or as Lipovetsky designates hypermodern art, an art that aims to express itself, the visual shock, the sensory experience, the bet on the seduction of the senses, and the search for purely aesthetic pleasure (Lipovetsky, 2013).

The presence of fashion artefacts in the contemporary art panorama flourished with the post-digital aesthetics which results from their haptic dimension and their daily-embraced aspects as garments that appeal to the individual and collective imaginary, but above all, considering their easiness to attract a wide audience looking for social criticism and sometimes even revolutionary character. Fashion invades each day contemporary art with its objects that transform themselves into agents that induce critical thinking.

In this article we present a critical analysis of 4 artefacts from/about fashion as post-digital interventive objects, describing their evolution as well as discussing their influence on fashion after a pandemic time. We put the recent digital fashion artefacts in dialogue with post-digital aesthetics theories, discussing the blurred boundaries between the digital and the post-digital, and proposing the instantiation of a post-digital creation cycle applied to fashion artefacts.

Theoretical Contextualization

The Virtualization of Fashion – The Convergence Between Fashion and Technology

The concept of *Fashion* is complex and ambiguous:

- (i) Fashion as an industry of clothing, footwear, accessories, and cosmetics, which in addition to the commercial aspect, has an essential and artistic component.
- (ii) Social, economic and cultural phenomenon, characteristic of the West and modernity.
- (iii) Historical and cultural barometer, an indicator of the taste of a given period, may constitute the aesthetic and critical basis of a given historical period.
- (iv) Fashion in its wearable aspect is also a form of expression, a language, a medium that has already led to many “revelations without bloodshed” (Dior quoted in Tchong, 2014), gains more strength with its multiple media ramifications, inseparable from culture and mass communication (Pereira, 2018).

The fashion phenomenon arose closely linked to modernity, mass culture, and cinema. Cinema provided Fashion with a vast field of action. In fact, with the first stars of Hollywood, Fashion shone in all its splendour, while clothing gained more visibility, fashion designers more fame, and Fashion phenomena, in turn, also contributed to boxing office successes (Seeling, 1999). Fashion served as an inspiration for cinema, and at the same time, it used cinema for its dissemination — a relationship that we still find today but extended to multiple screens, and accentuated in social networks, a phenomenon that Lev Manovich (2019) named after instagranism.

As an art or entertainment industry, cinema was built from a figurative device — the screen. The screen is not just a technical invention but a magical space where the wishes and dreams of a majority, the masses, are projected (Lipovetsky, 2007).

Cinema appears as art free of the weight of the past and, thus, resembles Fashion in its primacy of the present, mainly in 3 fundamental aspects:

- (i) Industry — the search for the most immediate and most tremendous possible commercial success.
- (ii) The continuous launch of new films, or products, in which the latter overlap with the former.
- (iii) The awakening of passing passions for a brief season.

To these characteristics, we can also add the capacity for seduction. Both cinema and Fashion promote seduction, the artificial, and the magic of appearances. Like Fashion, the star is an artificial construction (Lipovetsky, 1987).

Technological development has created new challenges and new possibilities for Fashion, both in terms of production, communication, advertising and commerce, and creativity. Fashion has migrated to digital media in a constantly changing world, where we see as common place posters and catalogues moving to a digital format and have links to augmented virtual reality. Fashion magazines now have an online presence, i.e., the pace of content production and contact with the public has changed. Fashion editorials have also changed, static fashion photographic images have gained movement and sound with fashion films. Blogs, vblogs, social networks, YouTube, and many others appeared and multiplied. Fashion embraced the digital age's technological revolution, spreading through the multiplicity of screens and hybridizing with other artistic and consumer areas.

We understand digital media art as a form of artistic expression produced through technological resources and/or channels of diffusion, previously exclusive to the information and entertainment industry, and that resort to technology as a tool and creative engine for contemporary art production. In other words, digital media art is art produced with the means of its time. Hence, it is probably the form of contemporary artistic creation that best expresses contemporary man's sensitivity and knowledge.

When we analyse digital media art from a post-digital perspective, we find different ways to combine digital and computational technology and aesthetics with physical materials or ways of producing hand-crafts. Technology and digital aesthetics remain a matter, theme, or channel of diffusion, but creativity gains supremacy, testing new ways to increase immersion and interactivity with the public. The proto-interactive conceptual installations are revisited, and new experimenting dimensions appear. Thus, we are facing here an emerging aesthetic inheriting characteristics of the digital, the media and of the materials, along with new challenges in communication, sharing of materials and of the creative cycle itself that may become collaborating in the global network of communities of creative persons working in fashion and arts (among others).

The Impact of Digital Media on Contemporary Fashion

The Covid-19 pandemic caught the Fashion System off guard, even though fashion brands had already realized the impact of digital culture on the global world, however, have had not invested much in new technologies. When in 2020, the world faced the world's restrictions pandemic, the fashion industry has confronted a decline that reached 90% of economic profit (BoF, 2020).

With the state of global emergency and imposed confinement, consumers' lifestyle has changed: social, professional, and leisure activities have moved to the web and its virtual worlds. We have seen major changes in public habits, interests, and consumption. The average consumer started to experience their online presence even more. In the face of tomorrow's uncertainties, the general public began to be more concerned with sustainable well-being and the environmental and social resources of the planet. Fashion reflects contemporary times, and as such, it has had to increase efforts to combine its tangible collections with digital media formats, mixing creative means and processes.

In this online version, fashion weeks have had to reinvent themselves, have become more democratic, targeting both consumers and industry experts. Live events seek to encourage public participation and interactivity and data collection for brands (McDowell, 2020).

With bans on events with many people and severe travel restrictions between countries and counties, fashion shows and world fashion weeks have become online events. In September 2020, New York Fashion Week presented the collections of the designers' brands on two different platforms, NYFW.com and Runway360, if on the one hand, these two platforms ensured digital diversity, yet presented an overlap, or duplication of projects, with similar agendas (McDowell, 2020 A).

According to WGSN (Worth Global Style Network- trend forecasting company) forecasts, in the coming years, we will see an expansion of virtual identities, with photo-realistic avatars capable of accurately simulating facial expressions, movements, and voices; and more significant investment in the development of emotional, sensory experiences in simulated virtual worlds and mixed reality environments (WGSN, 2020).

There is currently an increasing appreciation of "digital craftsmanship" and an increase in fashion brands to develop and commercialize fashion and interior design pieces for the virtual worlds, with the same attention to detail as the tangible pieces, but without implying material resources, opening a new field of possibilities for expression, expansion, and promotion of sustainability (McDowell, 2021).



Figure 1. Leela — The Fabricant Project {The Fabricant, Leela, 2020, <https://www.thefabricant.com/>, copyright: The Fabricant}

In Amsterdam, the Netherlands, several startups have emerged that combine Fashion and Technology, focusing on building a fashion ecosystem that encompasses sustainability, digital transformation, innovation, and disruptive technologies (Kapfunde, 2020). Of this ecosystem, we highlight the fashion company The Fabricant, founded in 2018, dedicated to the manufacture of exclusively digital clothing (The Fabricant, 2021). These projects have creative predecessors such as SHOWstudio and Zeitguised. Photographer Nick Knight founded the SHOWstudio in 2000, London, United Kingdom. SHOWstudio is a digital platform that calls itself Home of Fashion (Khan, 2012) and whose objectives can be summarized in four keywords: process, performance, interactivity, and fashion film (Gindt, 2011). It is a pioneering project for emerging fashion film genres (Evans, 2013). SHOWstudio was born to change the way we receive and perceive Fashion. Knight brought together a multidisciplinary team from different artistic areas such as music, art, architecture, and performance to explore the potential of fashion

film, and investigating through artistic practice, the relationship of Fashion and digital media, looking for ways to involve the fashion consumer through collaborative projects, blogs, and the use of interactive digital technology (Khan, 2012).



Figure 2. Frame of Void Season — Extended 04 Fashion {Zeitguised, Void Season – Extended 04 Fashion, 2018, Zeitguised, copyright: Zeitguised Studio}

Zeitguised, based in Berlin, is a studio founded in 2009 by architect Henrik Mauler and sculptor Jamie Rap and produces videos with textile simulations, exploring the fluid materiality of 0% organic algorithms (Zeitguised, 2021). For Zeitguised, it is a mistake to perceive manual labor as very different from computer-based work, often criticized for appearing reproducible through machines. They consider that this view disregards the boldness and strength of the ideas transformed into programming, algorithms, and system configurations. It is a process that they consider to be completely artistic and frame it as synthetic art (Longstrech, 2016). With origins in architecture, design, and Fashion, these artists explore tangible forms in digital art, animating real (tangible) objects and materials so that they gain a new life on the screen. Working in a completely simulated, 3D space with light software to imitate its incidence, reflections, and the visual qualities of materials and surfaces, the object's photography and filming is simulated in software such as Cinema 4D or Houdini. To evade human perception, leading the viewer to believe that the work displayed on the 2D screen is a recording of something in the tangible world (Moreno, 2016).

Post-Digital

Post-digital is synonymous with contemporaneity, characterized by digital technology's ubiquity, omnipresent in all aspects of everyday life, expanding the digital. The daily experience of living in a "computational society" encourages the search for new concepts and experiences to understand and define the present.

In the 20th century and the first decades of the 21st century, we witnessed an accelerated development of technology, with a growing presence in contemporary society's daily life, both concerning social, cultural, and professional life. Adérito Fernandes-Marcos mentioned the current era as "the post-personal computer era," in which digital media are a fundamental part of building and sustaining the information society (Marcos, 2017). The internet and social networks influence contemporary society to the point that authors like Lev Manovich refer to contemporary society as Instagranism (Manovich, 2019) and Luciano Florini reflects on the hyperconnected era, developing the concept of Onlife (Floridi, 2015).

Post-digital can be interpreted as a response to aesthetic capitalism (Lipovetsky, 2013). It is not a rupture, but an evolution, in which creativity overlaps technology, imbricating a desire to blur the boundaries between the physical and the digital, always preserving the digital/computational aesthetics.

Authors such as Hans Ulrich Obrist (2015), consider that the generation of post-digital artists grew with the advent of the internet and computational technology. Naturally, they are influenced by digital, but many do essentially physical work, exploring various tactile materials. These artists oscillate between digital and analogue, with total fluidity, moving freely between disciplines and media formats. Indeed, digital media have changed social interaction but have not entirely replaced immersive physical experiences. Some authors, such as Jonathan Openshaw (Openshaw, 2015), consider that they are felt to be stimulated in digital artefacts. Thus, post-digital rematerialisation allows the appeal to tactile, olfactory, and even taste senses. In addition to exploring sensations, post-digital brings a field of creation and research-oriented to the design of emotions. The material side of the objects of (re) materialized digital medium-art refers us to Erkki Huptamo's theories of haptic art (Huptamo, 2007) and to the ability of these objects to arouse the desire for interaction and, essentially, to stimulate through the gaze the desire to touch, but also to provoke desire in its three emotional dimensions: visceral, behavioural and reflective (Norman, 2004).

In the beginning, the concept of post-digital was associated with the rematerialisation of digital art and with a strategy of these artists to be accepted in the contemporary art milieu, since tangible artefacts are more easily integrated into exhibitions in traditional galleries and have a commercial value better understood by the public. Yet, we are currently seeing the reverse. The (re) materialization of design works and products between different media formats is intensified, adapting to consumers' change and how they live between tangible, virtual, and mixed realities.

As a result of contemporary times, post-digital is strongly influenced by aesthetic capitalism and consequently by the Fashion system. Aesthetic capitalism designates the aestheticization of the economy, the constant search for style and beauty (and instigation) in the construction of images and products with aesthetic-emotional dimensions, including the following main characteristics:

- (i) The growing attention given to sensitivity and the design process, seeking to achieve a stylization of goods and places, the integration of art, the look and affection in consumption.
- (ii) An operation that rationally explores, in a generalized way, the aesthetic-imaginary-emotional dimensions for-profit and the conquest of the market.
- (iii) Undifferentiation of the economic and aesthetic spheres with the hybridization between economics and aesthetics, industry and style, fashion and art, entertainment and culture, commercial and creative, mass culture and high culture.
- (iv) We are facing capitalism based on seduction (based on inducing emotional expectations of consumers) that replaces capitalism based on production (Lipovetsky, 2013).

Post-digital again places materiality and dematerializing artistic practices as new sources of reflection, artistic experimentation and scientific research. The post-digital and the intrinsic transdisciplinarity bring new domains and interpretations in art while simultaneously enhances the creation of new expressions and aesthetic narratives, generating renewed challenges and hypotheses, both formally and in the face of the public's reaction to the treated themes and to fruition scenarios proposed for experimentation.

Post-Digital Fashion Artefacts

A post-digital fashion artefact is an art object created based on digital/computational aesthetics where Fashion, in its clothing or system aspects, is taken as a theme or support.

The concept of post-digital artefact results from the union of the notion of artwork and of its utilitarian purposes. In this context, we can consider that the artefact is the result of a creative purpose, i.e., to address a specific aesthetic discourse.

Like digital media art artefacts, post-digital fashion artefacts aim to provide an enriching experience of sensorial, emotional, and intellectual enjoyment while exploring technological innovations to create new aesthetic discourses. Post-digital artefacts do not have to be produced exclusively by computational/digital materials. In fact, these post-digital fashion artefacts are mostly hybrid (tangible-offline and virtual-online) (re)materialized in various supports thus adapting to exhibitions on tangible spaces and to exhibitions, which are increasingly in vogue, online.

The emergence of fashion artefacts in the contemporary art panorama flourishes with post-digital aesthetics. Post-digital artefacts question and compel us to rethink how fashion is exhibited in galleries/museums, its place as an artistic object, and the interaction between it and the public. In many cases, they are objects of desire that become agents of induction of critical thinking.

Analysis of 4 artefacts from/about Fashion



Figure 3. Voguing Mask IG Filter (left) and Chalayan outfit F/W 2019 (right), Hussein Chalayan {Hussein Chalayan, Voguing Mask, 2020, <https://www.instagram.com/chalayanstudio>, copyright: Chalayan}

Hussein Chalayan is a creator of fashion and fashion artefacts, describes himself as an immigrant between disciplines: from fashion design, architecture, philosophy, engineering, and anthropology. This creator's work embraces the dualities between art and consumption, fashion and cinema, heritage, and the future. Hussein compares his work to a narrative, a way of telling stories, incorporating different themes, experimenting with new and innovative materials and forms of less conventional forms of expression.

In this fashion artefact, Chalayan used the helmets presented in the sculptural accessories he created for his fashion show in international fashion weeks. Through augmented reality technology, he made them democratic and shareable among the public, making these models three-dimensional filters in augmented reality filters from the social network Instagram. Users of Instagram can thus use the filters, which simulate the 3d pieces, try them on their body, interact with this artefact, photograph themselves and share again on social networks. This artefact allowed Chalayan to turn his accessory into an

expanded fashion artefact and approach the public, interact with him, and test new ways of communicating post-digital.

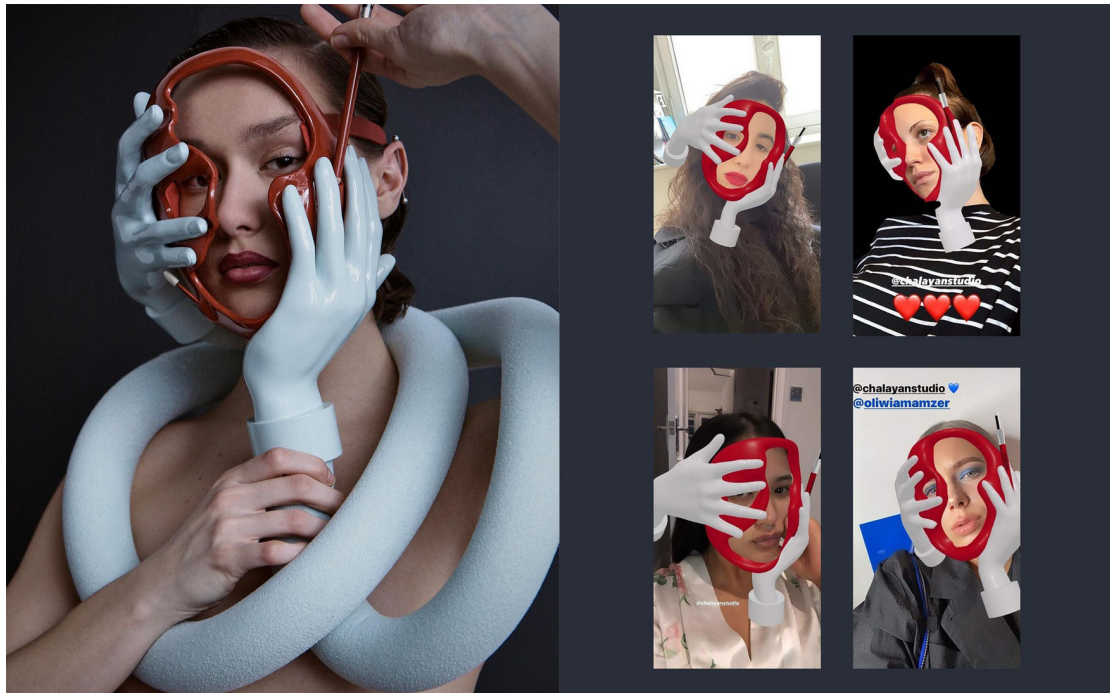


Figure 4. Voguing Mask IG Filter shared on Instagram {Hussein Chalayan, Voguing Mask shared on Instagram, 2020, <https://www.instagram.com/chalayanstudio>, copyright: Chalayan}



Figure 5. Nature of a Digital Dream sculpture {Selma Pereira, Nature of a Digital Dream, 2020, source: Selma Eduarda.pt, copyright: Authors}

Nature of a Digital Dream is a hybrid installation that combines textile sculpture and augmented reality technology, presented at Artrooms Rome 2019 – International Contemporary Art Fair for Independent Artists. The installation is a sculptural, hybrid rematerialisation that invites viewers to interact and immerse themselves in the fashion artefact.



Figure 6. Details of *Nature of a Digital Dream* sculpture {Selma Pereira, *Nature of a Digital Dream*, 2019, source: Selma Eduarda.pt, copyright: Authors}

This installation reflects the author's view of the relationship between the body, fashion, and the digital/virtual worlds. On tangible sculpture, the body is covered by several textile layers of different origins, and with different textures — layers of smooth, banal, and even uninteresting fabric, sometimes interrupted by elaborate layers and fabrics that approach scales. Mirrored textile materials perforate the shapes and layers, a member of the sculpture is amputated and violently interconnected by foreign materials with an i-tech appearance.

The digital component consists of an application for mobile devices (which the public could download for free through Google Play), where information about the concept of the piece, the making of the creation of the installation, and augmented reality can be found, in which the user, when pointing at the sculpture, sees the video-art component of the piece.



Figure 7. Al-Andaluz Textil: art installation (left) and frame of video projection (right) {Selma Pereira, Al-Andaluz Textil, 2017, source: Selma Eduarda. pt, copyright: Authors}

The installation was developed for the XIX International Biennial of Art of Cerveira, in Vila Nova de Cerveira, Portugal, with the theme *From pop-art to trans-avant-garde, appropriations of popular art*. The concept of appropriation served as a motto for reflecting on contemporary culture, and the lived aesthetic capitalism, the processes of creation and dissemination in the digital age.

Al-Andaluz Têxtil is made up of a white textile sculpture and a video (mapped video projection) that covers the textile object and expands through the surrounding exhibition space.

The installation *Al-Andaluz Têxtil* was exhibited for the first time in Silves, Portugal, in 2014. In 2017, the author revisited this installation. Moreover, this time, returning to the textile fragments, she appropriated the patterns, thinking about the fashion images that surround us in daily life, and using the techniques of the organic narrative of the fashion films, she created a video that wears the textile object, transporting it to other dimensions and materialities.

In *Al-Andaluz Têxtil* the intention is clearly to provide an experience of post-digital enjoyment, where the transparency/ubiquity of digital is sought explicitly by the video's superimposition element wearing the textile object. The installation combines two issues specific to post-digital: the materiality of the tangible textile object vs. the re-materialization of these textiles through the projected cinema language; and the forms of appropriation in digital culture: the appropriation of textile techniques and patterns materialized in the textile object and the appropriation of cinema images to create an audio-visual composition of video art.

The use of textile materials (fabrics) as the material of choice — even when the fabric materializes only on the screen or in the projection (as in the installation *Al-Andaluz Têxtil*), arouses the desire to touch, to know its texture, to feel the material, experience the reaction to touching and movement. The fabrics, by themselves or represented in different media, are suitable for haptic art.

Haptic vision and visual touch are characteristics/trends already present in the “traditional” figurative art. The concept of haptic visuality implies the transposition of the qualities of touch to the vision domain through a bodily operation, which involves the eyes and the brain, but the hands may not be part (except as a projection of the imaginary).



Figure 8. Virus (2012), Valentim Quaresma {Valentim Quaresma, Virus, 2012, source: Valentim Quaresma, Copyright: Valentim Quaresma}

Valentim Quaresma (1970-Lisbon, Portugal) is a multidisciplinary artist with a primary focus on contemporary jewellery, sculpture, and, in recent years, also in fashion. He sees contemporary jewellery as a form of expression and fashion as beauty. To Valentim Quaresma, he is more interested in the discovery and upcycling of different materials than technology. In his atelier, they only have the necessary technology; he continues to produce his pieces in a handmade way, with care to detail but making little use of noble materials.

Quaresma is clearly influenced by the artist Maiko Takeda's post-digitality, whose work is marked by works of contemporary jewellery in everyday materials, which explore the connection between nature vs. artificial and aura vs. digital. Takeda's pieces are close to digital, without containing any electronic device (Takeda, 2021)

Since 2012, Valentim Quaresma has presented his collections in all editions of ModaLisboa and shows his pieces with a more sculptural nature in individual exhibitions, such as *Apocalypse*, at Palácio da Ajuda, in 2019. Digital culture and aesthetics serve him as inspiration in the themes of his collections and the very concept and forms of the author's sculptural pieces.

His sculptural jewellery pieces lead us to a futuristic universe, close to science fiction with cyborgs, machines of the future, and strangely beautiful prostheses.

In this pandemic and uncertain time, Valentim Quaresma is disappointed by the little, if any, acceptance of fashion as art, by the entities that support the arts, and by the Portuguese Ministry of Culture. The artist warns that more attention is needed to the 'creative industries', born and developed in the fusion of culture and creativity — strategic competitive factors for almost all economic activities of goods and services, especially in consumer markets' more dynamic end. "In the case of fashion, it does not exist for the Ministry of Culture, especially for DGArtes [General Directorate for the Arts]. I would say that fashion is an orphan in culture in Portugal." (interview with V. Quaresma in A.Murcho (2021)

The multidisciplinary present in post-digital artefacts

Since the 1990s and 2000s, fashion began to be seen in academia from an interdisciplinary perspective. The theme begins to emerge with different expressions such as fashion studies and fashion-ology (Godart, 2010). In recent years, fashion has become an important research topic in social and cultural theory, the focus of many analyses that try to understand the phenomenon of fashion in contemporary times.

Fashion is now seen as a proper investigative area for understanding various social and cultural issues, from production and consumption practices to political identities. Fashion Studies have gradually developed, using methodologies from many other disciplines, such as history, philosophy, sociology, anthropology, and media studies, among many others (Rocamora, 2015).

When analysing post-digital fashion artefacts, we are faced with a complex and transdisciplinary contemporary fashion—a fashion, or art-fashion, influenced by what Lipovetsky (2016) called hyper fashion. Hyperfashion is art that intends to be the expression of itself, the appeal to sensory experience and immediate senses, betting on seduction in the search for aesthetic pleasure.

This art-fashion is the result of contemporary art influenced by the fashion system, in which the artistic merged with the commercial and with fashion. In agreement with Lipovetsky's (2016) thinking, many museums and contemporary art institutions started to organize themselves according to a "spectacle logic", betting on playfulness, in exhibitions that appeal to theatricality, illusion, seduction, enticement, playful and light pleasure.

If we look at post-digital art from this point of view, we find dimensions common to the fashion system:

- (i) Phenomenon: socio-cultural phenomenon capable of acting as a barometer of a society at a given time. Reflects society, taste, media and technology its time, date of creation and production.

- (ii) Trans-aesthetics: concept by Gilles Lipovetsky (2016) to refer to the contemporaneity in which the economic and aesthetic spheres have hybridized into a hyper art.
- (iii) Ephemeral: fashion, although it has a tangible body — in garments and accessories — is ephemeral about fashion trends, the imposition of renewal, and rapid disuse. In digital media-art we find this characteristic in the ephemerality of objects, primarily immaterial and their digital essence. But also, in need to update the computational equipment, make upgrades of the software and hardware, which is a short time become obsolete, for the enjoyment and creation of digital media art.
- (iv) Media: the fashion system is, since its origin — in modern times, intrinsically linked to media culture, consumer society, materialistic, with the digital age it expanded through digital media.
- (v) Performative: whether it is the fashion presentations at the shows or on the screen, fashion reinforces its presence before the public, using performative dimensions brought through cinematographic, theatrical, scenic, narrative languages, with different types of sensory and experimental complexities. The advent of the internet has transformed classic fashion shows into global shows, with millions of spectators around the world participating in real-time, making the show a form of digital spectacle.
- (vi) Criticism: fashion is a form of expression, a language, a medium that, being “masses”, can carry out “revolutions without bloodshed”, as has been shown throughout history. Fashion can boost cultural, world trends, renew ways of being and do, and to subvert aesthetic orientations.
- (vii) Desire: the fashion system exploits desire. The desire is aroused in the viewer through the look, a desire to obtain, for personal gratification through consumption, a desire for belonging, individualization, and social distinction. Exploration of the aesthetic-emotional characteristics of objects to appeal to the senses and arouse desire in the viewer.
- (viii) Immersion: the spectator also immerses himself in fashion, driven by desire, seduction and through the dream, the viewer enters the narrative built by the fashion brand.
- (ix) Spectator-participant-user: the fashion system, in recent years, has worked on to encourage the public to participate and actively collaborate with their projects: responding, contributing creatively, communicating and/or evaluating the results.
- (x) Palpable: the fashion piece, even when it only materializes on the screen, causes the fabric to be touched, the desire to know its texture, feel the material, appreciate its “fit”, its reaction to touch, and to movement. Textile materials, per se or represented in various media, are conducive to haptic art.
- (xi) Emotional: Fashion causes us visceral emotions, concerning its ability to provoke passing passions; behavioural, in the pleasure of acquisition and effectiveness of use; or reflective, about self-image, its self-representation to the desire to belong to a group/society, to the distinction; personal satisfaction, the message it conveys and the memories it awakens.
- (xii) Memories: Fashion pieces, whether in the wardrobe of your home or when displayed in a museum, awaken memories of times, situations, bodies, places ... they tell the individual story of those who wore them but also of the moment and the society in which they were inserted. Its construction, the fibers that compose it, the techniques with which it was executed, its ornamentation are characteristics of a determined time, society, group, thus being part of the collective memory. (Carvalho, Pereira & Marcos, 2017; Pereira, 2018).

The post-digital creation cycle applied to fashion artefacts

Artistic practice can be seen to enhance the understanding of knowledge, so research based on artistic practice appears as an alternative to current research methodologies and methods. It is not an investigation about art, but an investigation based on the artistic practice itself (Sullivan, 2010).

Marcos, in 2017, defended that the creation process in digital art often depends on collaboration between artists and a team of programmers, technicians, scientists, designers, among others, involved in a multidisciplinary work process in fields such as art, science, technology, design, psychology. (Marcos, 2017).

In this context, Marcos (2017) diagrammed a creation cycle in digital media art based mainly on the design of the artefact's message (or experience) and its development, in a process in which digital media are always present. This creation process is different from the methodology commonly adopted by design, in which the process is focused on solving a problem, which dictates the guiding thread of the entire process. In this creation cycle, systematization aims to enhance the final artefact, providing a significant experience of enjoyment and aesthetic contemplation while materializing the artefact.



Figure 9. The creation cycle in digital (computer) art {Adérito Fernandes-Marcos, 2017, source: Marcos(2017), Copyright: Adérito Fernandes-Marcos}

Given the characteristics of post-digital, intensified with the network experience in these pandemic times, the exhibitions tend to become hybrids (working in the physical space and online), making it urgent to rethink and, in some cases, adapt, the artistic creation process.

When developing artefacts that will be enjoyed in the tangible space and on the viewer's personal computer screen, it is essential to plan this difference in support (can be seen as canvas) and experiences since the beginning of the creative cycle. In several cases, audio-visual records of the artefacts are presented in the virtual exhibitions, where the spectator's experience when watching the video of the artefact is much more limited, both in terms of interaction or immersion, as well as aesthetic emotion when compared to contact with the artefact in physical space.

In this context, we propose the post-digital creation cycle, where network collaboration with multidisciplinary teams intensifies, given the differences in support, materials, and disciplines inherent to this hybrid character of artefacts (Pereira & Marcos, 2020).

This cycle maintains the initial concept as the "starting point" of the cycle. From then on, the artist, alone or in collaboration with other artists/researchers, begins to design and build concepts, entering a non-linear process, which takes him/her to the final artefact/installation, but which will not end there, will continue through production theory, scientific publications and communications about the artefact produced but also about the creative process itself.

The process from the aesthetic meditation phase is divided into two simultaneous, synchronous, and constantly communicating sub-cycles, the development of the artefact to be displayed in the tangible space and the development of the artefact for online/virtual presentation.

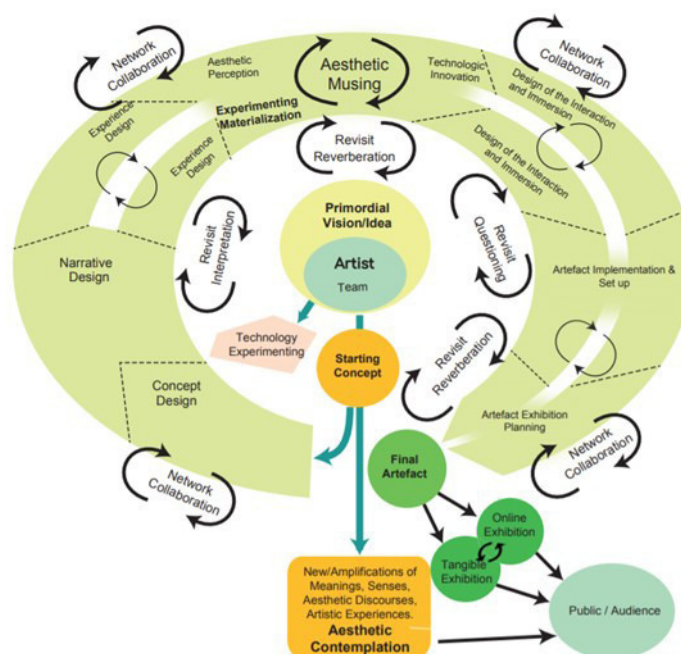


Figure 10. The creation cycle in post-digital art {Authors, 2021, Source: Authors, Copyright: Authors}

Concluding remarks

Aesthetic capitalism united, breaking boundaries and extrapolating the logic of fashion far beyond the sphere of consumption. Areas of study as history, heritage, and safeguarding collective identity and memory are also influenced positively and negatively by fashion and world culture. They have become fashionable, added value to enhance art, culture, new products, artefacts, and experiences.

The fashion pieces tell, simultaneously, the individual story (of those who produced and wore them) and the collective story (of the time and society), but they are also a form of creative expression, where the creator/designer expressed a concept and/or message, and the consumer interpreted it by dressing and matching it with other pieces. We can consider fashion a means of communication and an artistic medium capable of reaching a vast audience.

Fashion, long before the digital age, already contained the dimensions of criticism. To quote Lipovetsky (1987): fashion “allows the widening of public discussion, greater autonomy of thoughts and subjective existences, it is the supreme agent of individualistic dynamics in different manifestations”.

With this paper, we intend to contribute to the discussion of the convergence of fashion with art and technology, highlighting the influence of post-digital aesthetics on fashion, and, consequently, of the fashion system on post-digital artistic production. We also intend to contribute to discussing the still diffuse theory of the boundaries between the digital and the post-digital, taking as an example 4 artefacts analysed in this article.

We can analyse the creation cycle in post-digital art for fashion artefacts' point of view: these are artefacts with artistic intentions and not just be commercial or marketing. Most of these artefacts are tangible, but even when they assume immaterial shapes, they often simulate fabrics or wearable pieces (although the human body may not be represented, as in the example of the Zeitguised, Fig.2). Therefore, as represented in the creation cycle in post-digital art, in fashion artefacts' creative process has as its starting point the artist's vision/concept and developed by the artists(s) and multidisciplinary teams.

Most of these artefacts have material supports (textile sculptures, art installations, or others), but in-

creasingly they are complemented by (or are total) digital/virtual rematerialisations. Taking the previous analysed artefacts as example, the Chalayan artifact (Fig. 3 to 6), the material artefact presented at the Chalayan F/W 2019 Fashion Show (Fig. 4), is rematerialized (Fig 3) and later implemented in the filters for the Instagram (Fig. 5 and 6), making it interactive and allowing a broader audience to know and enjoy it.

In the *Al-Andaluz Têxtil* artefact, the tangible and virtual components were created simultaneously to complement the virtual instance (Fig. 11 and 12). In the *Nature of a digital dream* artefact (Figs 7 and 8), the process of creating the material and virtual component was thought from the beginning, but in this artefact the virtual component was planned in order to continue the tangible artefact after the (presential) exposure ends. The *Virus* artefact (Fig. 13) is just a tangible object, in which its virtualization took place later through photographic recording.

In future investigations we will continue to analyze the boundaries between the digital and the post-digital, drawing mainly on our experience in artistic practice on/about fashion.

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