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The Fashion Industry During the COVID-19 Pandemic: The Case of the Appropriation of Medical Mask

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O Caso da Apropriação da Máscara Medicinal

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This paper presents the fashion industry, focusing on its adaptation and reconfiguration as a social, cultural, and artistic expression during the COVID-19 pandemic, which began and spread throughout the world in 2019. In its multidisciplinary essence and from various perspectives, fashion promotes creativity through a language rich in significations with new forms of communication and connectivity, reflected in design, advertising and marketing. The goals of this research are, first, to identify the various strategies used in the sector's adaptation to the community in the face of a public health crisis; second, to analyse and recognise the impact that the appropriation of the medical mask as an object has had on fashion in the context of the pandemic; third, to identify the different types of mask production after their appropriation by fashion; and, finally, to recognise the symbolic status that the mask object acquires after its appropriation and re-signification by fashion. For this analysis, a qualitative approach is used, combined with a review of scientific papers, market reports and published interviews with professionals in fashion industry. This study aims to contribute to the presentation and explanation of communication strategies in fashion, highlighting its capacity for adaptability. Similarly, the research enhances the processes of fashion semiotics, proposing a categorisation of different types of productions, and the symbolic statuses that the mask-object acquires.

Keywords: fashion, sector, pandemic, appropriation, mask

O Setor da Moda na Conjuntura Pandêmica da COVID-19: O Caso da Apropriação da Máscara Medicinal

Este trabalho apresenta o setor da moda, com foco na sua adaptação e reconfiguração, como expressão social, cultural e artística, durante a conjuntura pandêmica da COVID-19, que se instalou e se propagou pelo mundo a partir do ano de 2019. Na sua essência multidisciplinar e sob diversas perspectivas, a moda promove a criatividade, através de uma linguagem rica em significações com novas formas de comunicação e de conectividade, refletindo-se no design, na publicidade e no marketing. Os objetivos desta pesquisa passam, primeiramente, pela identificação das diversas estratégias utilizadas na adaptação do setor à comunidade perante uma crise de saúde pública; de seguida, pela análise e pelo reconhecimento do impacto que a apropriação do objeto-máscara medicinal teve na moda, em contexto da pandemia da COVID-19; posteriormente, a identificação dos diferentes tipos de produções da máscara, após a sua apropriação pela moda; e, por fim, o reconhecimento dos estatutos simbólicos que o objeto-máscara adquire, após a sua apropriação e ressignificação pela moda. Para esta análise é utilizada uma abordagem qualitativa, combinada com a revisão de artigos científicos, relatórios de mercado e entrevistas publicadas de profissionais da área da indústria da moda. Este estudo pretende contribuir para a apresentação e explicação de estratégias de comunicação em moda, realçando a capacidade de adaptabilidade do setor. Da mesma forma, a investigação enriquece os processos da semiótica da moda, propondo uma categorização de diferentes tipos de produções, assim como os estatutos simbólicos que o objeto-máscara adquire.

Palavras-chave: moda, setor, pandemia, apropriação, máscara

Introduction

The fashion industry¹ has a significant impact on the community, while social events of different kinds also influence its dynamics and trends. From this perspective, it is possible to investigate how fashion has readjusted to the pandemic situation that began in late 2019. With the emergence of the new coronavirus pandemic, SARS-CoV-2, society has been forced to change its way of life and its consumption habits. Fashion has readjusted to the social and hygienic needs of combating the further spread of the virus. As the COVID-19 pandemic worsened, the World Health Organisation (WHO) recommended that the population wear face masks/medical masks to protect the respiratory system. These guidelines triggered a surge in the fashion industry's manufacture of masks. Some responded automatically to the health and economic needs of companies. In contrast, others innovated, redefining the form and perception of the medical mask, whether through utilitarian reappropriation or purely artistic expression. In this way, fashion appropriated the concept of the medical mask, readjusting techniques, configurations, colours and models. It has stood out for its cooperation with the health sector, with the aim of providing rapid responses to the population's need for physical and emotional protection while also emerging as a commercial opportunity.

It is from this perspective that this article aims to present fashion as a sector historically dedicated to constructing new and renewed significations, particularly in the context of the COVID-19 pandemic.

The Fashion Industry Amid the COVID-19 Pandemic

With the emergence of the pandemic crisis, fashion sought to innovate, responding to new social and health requirements, as well as changes in consumer behaviour and expectations. Faced with these challenges, brands and designers have quickly adapted, reinventing production methods, exploring new ways of interacting with the public and reinterpreting items and trends. This period of rapid adaptation has culminated in a redefinition of the industry, which, rather than simply reacting, has sought to anticipate and influence the direction of societal dynamics. "Social and political events have a direct impact on the way society lives, on the culture and style of a given era, because they change people's lifestyles, consumption patterns and even their identity" (Garcia et al., 2020, p. 1). However, the fashion industry has suffered in the wake of the pandemic, facing a sharp drop in production, imports and exports, leading to lower sales.

¹According to Mark Atkinson (2012), the fashion industry encompasses activities involved in production and distribution, as well as economic and industrial aspects. It covers designers, manufacturers, industries, shops, and brands, taking into account the production and trade chain. It includes fashion marketing, market strategies, consumer trends, technological innovation in production, and logistics, among other areas of activity that collaborate with the fashion industry.

According to Larguesa (2021) and data from Statistics Portugal, the textile industry lost 572,000,000 € in exports in 2020; “after nine consecutive years of growth (...), exports from the Portuguese textile and clothing industry shrank by 1% in 2019 and fell again by 11% in 2020, totalling 4,643 million euros” (Larguesa, 2021, para. 1). The pandemic weakened the global economy, particularly the fashion industry. “The clothing segment (...) lost €540 million in foreign sales (...), 17.3% below the previous year’s performance. And the last month of the year only confirmed the disaster for the national clothing industry” (Larguesa, 2021, para. 9). The health situation and the requirement for isolation in several countries are described as the “great lockdown”, justifying the sharp drop in consumption. In times of pandemic, the fashion industry had to reinvent itself in order to connect with the public in different ways. It invested in updating websites and smartphone apps, among other things, making digital communication more engaging and interactive so that users would be attracted, stay and repeat their return behaviour. Thus, “brands that already had an e-commerce structure sought to boost their sales, sometimes offering discounts and free shipping, as well as vouchers for later collection of goods in physical stores” (Badaró & Brasil, 2020, p. 3).

Restrictions on movement prompted a rethink of clothing styles more suited to an informal and practical environment. According to Garcia et al.’s (2020) article, there was an increase in demand for loungewear items, such as pyjamas, tracksuits, and underwear. Some Portuguese brands responded to the demand for comfortable clothing, such as PTN Store, Conscious, Rust & May, Açai com Granola, Decenio, Majatu.Studio, Concreto, and Parfois, among other Portuguese companies². “Dressing to be at home and dressing for Zoom have more in common than it might seem. Furthermore, it’s a connection that manages to reconcile sophistication with comfort” (Méndez, 2021, para. 5). As a result, brands have invested in a line of relaxed and comfortable clothing.

Consequently, in early March 2020, the fashion industry began to experience changes. As Liam Hess (2020) stated, at Milan *Women’s Fashion Week* in February 2020, some designers appeared to signal a shift away from and/or readjustment of the traditional fashion show format. “While some chose to withdraw their collections altogether, others, most notably Giorgio Armani, opted to live-stream the show without a physical audience” (Hess, 2020, para. 3). Subsequently, the pandemic situation tragically intensified in Italy, leading to the cancellation of fashion shows. The Saint Laurent (2020) brand is an example

²The selection of brands is based on observing how well they have adapted to consumer needs during the pandemic, as evidenced by monitoring their strategies and publications on digital platforms, as well as their response to changes in consumer behaviour. In addition, the research included visits to stores, where collections were analysed, and the adaptation of items to the circumstances imposed by the pandemic was assessed. During the fieldwork, informal conversations were also held with brand employees in order to gain a deeper understanding of the challenges and strategies associated with the sector’s adaptation to a new environment. In addition, the PTN Store brand is mentioned due to the experience it has gained in the course of its work, which has contributed to strengthening this analysis by providing direct contact with the reality of the point of sale.

of the strategy of enhancing the spectacle of fashion by organizing a runway show in the desert, transporting journalists to a remote location where the collection was presented in a natural setting chosen as a scenographic element.

In addition to physical responses, digital strategies have also emerged that seek to adapt the presence of brands to the new context of lockdown and accelerated digitalisation. Notable examples include ingenious initiatives such as Louis Vuitton’s collaboration with the game *League of Legends* (Louis Vuitton Jobs, 2019), where the brand developed exclusive virtual items integrated into the game’s aesthetics, and Balenciaga’s (2020) creation of its own video game, entitled *Afterworld: The Age of Tomorrow*, to present its collection. These examples are part of a growing trend of fashion entering the metaverse — an immersive digital space — where some brands have started to invest significantly. An example of this is *Metaverse Fashion Week*, organised on the Decentraland platform, which, according to Vogue Globo (“Grandes Marcas Serão Presença na Primeira Semana de Moda do Metaverso”, 2022), brings together brands such as Dolce & Gabbana and Tommy Hilfiger, among others, in an interactive 3D environment, with fashion shows, virtual stores and digital shopping experiences (Second Life, 2022). These forays into the virtual universe gained particular expression during the pandemic when social distancing imposed new ways of interacting with the public and presenting collections. Thus, cyberspace has become a new “fashion quadrangle”³, generating considerable value and establishing itself as an emerging market. In the context of a global health crisis marked by fear and uncertainty, the traditional values and practices of the fashion industry have been forced to re-evaluate and reconfigure themselves.

On the other hand, the pandemic has compelled the fashion industry and consumers to place greater emphasis on sustainability (as the possibility of scarcity was felt for the first time), and, for this market, environmental concerns have become central to the manufacturing process; moreover, the COVID-19 pandemic has further reinforced this already long-awaited goal. Consequently, some designers in the industry, such as Giorgio Armani and Tom Ford, published two open letters in *Women’s Wear Daily*⁴ (Zargani, 2020) and The Council of Fashion Designers of America (Ford, 2020), endorsed by numerous signatories, proposing a plan to transform the operating model of the textile industry: two collections per year, an autumn collection and a spring collection; reducing fabric waste, and incorporating digital showrooms, including adapted formats for fashion shows. Some designers were already fighting against overproduction and the excessive use of materials in their creations, which led to excessive consumption, something that was further reinforced during the pandemic and

³The expression is used here in a metaphorical sense, alluding to the famous luxury shopping district in Milan (*quadrilatero della moda*). It serves to illustrate the emergence of a similar space in the digital environment of the metaverse. In this new virtual “territory”, fashion events, brands and experiences are concentrated in a symbolic parallel with the traditional physical centres of the industry.

⁴A commercial newspaper for the fashion industry since 1910, known as the “fashion bible” for covering the entire fashion system, from style to fashion business.

lockdown. Designers Gabriela Hearst and Stella McCartney (renowned for their conscious approach to the choice and use of resources) highlighted the importance of caring for the environment during COVID-19, given how the fashion industry uses many resources that degrade and wear down the planet. The designers pointed out and reinforced the importance of responsible manufacturing, using recycled materials and sustainable fabrics to create durable, quality products — “waste is a design flaw” (Yotka, 2020, para. 9).

Vogue launched its first series of global conversations in collaboration with the Vogue Global Network (<https://globalbrands.condenast.com/>) and Vogue Runway (2020; <https://www.vogue.com/fashion-shows>), entitled “Vogue Global Conversations”. The initiative aimed to showcase the efforts of the fashion industry, the future of traditional and digital commerce, as well as the impact of isolation on creativity and the design process in the face of the COVID-19 pandemic. Over four days, various personalities spoke and debated personal and professional uncertainties, with a focus on the fashion industry. This revealed a growing concern with developing fashion that is aligned with principles of environmental sustainability, guided by ethical responsibility, which aims at product quality, promotes the common good, and raises consumer awareness for a critical reading of the items they wear.

In addition, the global crisis had a significant influence on fashion magazine covers, changing the traditional approach of the industry. Communication, previously focused on glamour and style, began to focus largely on the health crisis. *Marie Claire* magazine in Mexico highlighted healthcare professionals as the true influencers of the moment, reflecting the change in focus. Similarly, the cover of *Claudia* in Brazil dedicated a special edition to praising women who stood out in the health sector in the fight against the pandemic. *Vanity Fair* magazine in Italy followed a similar line, celebrating healthcare professionals through the image of a doctor in a white coat.

British *Vogue*, in its July 2020 issue, featured three different covers, all focused on celebrating essential workers who were on the front line, such as healthcare, transport and retail workers. Under the title “The New Front Line”, the publications paid tribute to their courage and dedication. *Vogue Arabia*, meanwhile, sought to convey a message of unity and solidarity, reinforcing hope during times of lockdown.

In Portugal, *Vogue Portugal* used its covers to reflect on the feelings caused by the pandemic, such as fear, uncertainty, loss of freedom and unrest, addressing themes such as madness, panic and indecision. At the same time, *Revista Cristina* dedicated a special edition to freedom and the work of healthcare professionals, highlighting the initiative to donate part of its sales revenue to support the Garcia de Orta Hospital and the Vila Nova de Gaia Hospital Centre, in addition to other partnerships.

The crisis caused by the pandemic has had and continues to have a negative impact on the global economy, “on purchasing practices and the way consumers

justify their consumption patterns” (El Khatib, 2020, p. 1). The author was able to show that, due to mandatory community restrictions and the closure of non-essential businesses, consumerist behaviour has given way to anti-consumerist behaviour and alternative practices such as reusing, reducing and refusing. The ideology adopted by consumers, who choose not to spend money on products considered superfluous, is in line with the statements and positions of several fashion designers already mentioned, such as Giorgio Armani, Tom Ford, Gabriela Hearst and Stella McCartney, who have been highlighting the importance of quality and functionality of garments over excessive consumption.

The sector has sought to redefine its channels of interaction, strengthening its digital presence as a privileged means of communication and maintaining links with its target audience. Although digital integration was already part of the sector’s strategies, the pandemic context has accentuated its centrality as a channel for communication, marketing, and institutional positioning, promoting continuity in the relationship with the public and alignment with social responsibility initiatives⁵. Thus, from viewing the presentations of the collections of some of the fashion brands mentioned, it is possible to understand how the industry has further united a panoply of different areas in order to create a scenario in which it is possible to get the message across to consumers. From another perspective, it should be noted that, in this context, the presentations are inclusive, meaning that people interested in fashion shows could access the brands’ digital pages and read information about the dates and times of the presentations and the respective collections through social networks such as Facebook, Instagram, X, among others. This means that it was freely accessible at no cost and without the need for prior registration, which created a sense of camaraderie among those attracted to the fashion world.

Some brands also explored a new technology, a kind of “digital experiment”. Massimo Dutti created a tool called the “Shoes Experience” that allowed users to access its footwear collection from an app on their smartphones. The concept of augmented reality was intended to get consumers interested and “try out” the models presented by the brand, creating a feeling of comfort and, on the other hand, a sense of closeness to the items between the company and the customer⁶.

Faced with the emerging challenges of the pandemic, the national textile industry has shown resilience and a capacity for reinvention. These dynamics were highlighted in the report “No Fio da Pandemia” (On the Thread of the Pandemic), broadcast by RTP1’s programme *Linha da Frente* (2021), which explored the profound changes that have taken place in production, commercial

⁵The information was gathered through empirical observation, namely continuous analysis of the digital platforms and social media of various fashion brands, complemented by informal online conversations with representatives of fashion brands. The methodology made it possible to access useful data on the industry’s adaptation strategies during the pandemic period.

⁶The information was gathered through empirical observation during the pandemic period, resulting from a direct exploration of the brand’s mobile application. The analysis was complemented by continuous monitoring of the company’s official publications and communications on its digital platforms between March 2021 and March 2022.

and consumption practices in the fashion world in Portugal. According to testimonies from business leaders and institutional representatives, such as Susana Serrano (CEO of Adalberto), the sector has undergone a real structural and functional reorganisation. “Business leaders and sector representatives speak of a real revolution in the production, marketing and consumption of fashion products” (Linha da Frente, 2021, para. 1). The company Adalberto produced the first certified textile masks in Portugal; Susana Serrano explained how it was possible to develop a new technology, in partnership with the Institute of Molecular Medicine, for the manufacture and marketing of masks with viral inactivation after half an hour⁷. Moreover, the company “created an innovation department, reinvented communication and designed new tools to interact with customers” (Linha da Frente, 2021, 00:02:25); Hugo Miranda (director of research and development) explained how it was possible to create an artificial intelligence algorithm in which the customer could upload a photograph or a print, among other things. The company would make suggestions based on the pictures sent by the customer. “We exchanged, basically, reality for mathematics. The process that would take weeks (...) we do in one morning” (Linha da Frente, 2021, 00:03:17). Physical samples were replaced by 3D images, replacing the human body with an avatar, testing the physiognomy of a particular person with the exclusion of the physical model. In other words, with the pandemic, the expected developments were quickly accelerated by the need for more assertive communication in a digital context. This brought benefits not only in terms of processing time but also by contributing to the decarbonisation of the fashion industry at various stages of its value chain.

In the pandemic context, the concern of the company Estamparia Têxtil Adalberto was the transparent, responsible and sustainable manufacturing of an item where the end consumer could access the process through a QR code (a stylised replacement for the barcode); “we are now selling a service, it is no longer just a product” (Susana Serrano, in Linha da Frente, 2021, 00:19:06). Hugo Miranda explained how smart design (the invention of creative and intelligent solutions) makes it possible to recycle the product 100% or even break it down into an organic compound that can be used as fertiliser. Mário Jorge Machado, president of Estamparia Têxtil Adalberto Pinto da Silva, SA., revealed during the interview the difficult competition between brands from other countries that sell in Europe and are not concerned with regulations regarding the environment and human beings (the form of production, the products used, chemicals that are harmful to the environment and to people). “In a circular economy, if we import products that contain chemicals that are harmful to people and the environment, we will introduce these products into the circular economy, thus contaminating a large number of products” (Mário Jorge Machado, in Linha da Frente, 2021, 00:12:08).

⁷According to virologist Pedro Simas, the term “viral inactivation” refers to the ability of the mask material to neutralise viruses, rendering them incapable of infecting after a period of between 30 minutes and one hour of contact with the viral agent. The process is made possible by antiviral treatments applied to the fabric, which contribute to greater protection against the spread of the virus.

From another market perspective, some textile companies saw the health crisis as an opportunity for strategic repositioning, as well as an effective transfer of research into fabric and fibre technology for commercial use. This is the case of Dalila Ateliê Têxtil (<https://www.dalilatextil.com.br/>), which was already producing textural materials with antiviral finishes before the emergence of COVID-19. However, it was at this juncture that the brand achieved great prominence in the industry. “The new product promises to be effective against enveloped viruses, such as coronavirus, herpesvirus and influenza, and non-enveloped viruses, such as human adenovirus, norovirus and enterovirus” (Sawamura, 2020). The company creates fabrics with a mechanism of action that blocks microorganisms, inhibiting the persistence of the virus in the fabric itself. “The good news is that the antiviral finish has already been tested, for example, on face masks and clothing fabrics, and lasts up to 20 washes” (Sawamura, 2020, para. 5).

André Klein, director of Dalila Ateliê Têxtil, explains that “the technology uses silver particles (antimicrobial) to attract the virus with an opposite charge, causing it to bind to the sulphur groups present on the surface surrounding the virus” (“Primeira Coleção de Roupas Feita com Tecido Anticoronavírus É Lançada no Brasil”, 2020, para. 6). He clarifies that “this reaction inhibits the growth and persistence of the virus in the fabric, with a mechanism of action that blocks its binding to host cells, preventing the microorganism from releasing its genetic material inside” (para. 6). The development of antimicrobial fibres by Dalila Ateliê Têxtil has had a significant impact in the context of the pandemic, maintaining a focus on modern design and placing greater emphasis on the creation of antiviral fabrics for human use, such as the manufacture of protective masks.

The Impact of the Appropriation of Medical Masks in the Context of the COVID-19 Pandemic

The appropriation of medical masks by the fashion industry during the pandemic has had a significant impact on society. On the one hand, it has expanded aesthetic and cultural possibilities, influencing trends and transforming the role of the item into something more than a functional object. The influences of the media and digital marketing (in the case of social media) have played a fundamental role in health communication alongside fashion in promoting brands and trends. In this context, Mheidly et al. (2020) explain how psychological and social implications have influenced consumers to accept the use of protective masks due to their function and effectiveness, as well as the choice of types of models (and messages). The “cheerful and humour-based inspiration of these facemasks points to the need to combat fear with everyday clothing items, as well as to assert one’s individuality” (Tomovska, 2022, p. 27). From this perspective, the medical mask has transcended its initial protective function to become a fashion accessory with different expressions of personal style and cultural identity.

Additionally, the article “Attitudes Towards Wearing Facemasks as a Fashion Accessory” by Tomovska et al. (2021) reveals how there is a demand to escape from the negative, considering that medical masks can be more than just a protective measure, becoming a conscious stylistic choice.

Similarly, the scientific article “Facemasks, Material and Metaphors: An Analysis of Socio-Material Dynamics of the COVID-19 Pandemic” (Böhrer et al., 2023) explores how metaphorical narratives emerged around masks, highlighting their use as a vehicle for storytelling. The study addresses the multifaceted role of protective items during the COVID-19 pandemic, from their mandatory use to the exploration and creation of narratives in marketing campaigns and how masks became symbols in social, political, and moral debates. The mask is analysed from multiple perspectives: as a symbol of oppression and the struggle for freedom, a symbol of solidarity and morality, a symbol of shifting consumption patterns and a social icon, and as a subject of reflection regarding its role and multiplicity.

At the same time, the fashion industry drove the reinvention of the medical mask through technological innovation, incorporating antimicrobial, water-repellent, breathable, and sustainable fabrics. Collective awareness during the pandemic led to heightened concern for the environment and, more broadly, for the state of global unhealthiness experienced by humanity at the time. As a result, the textile and clothing industry explored different ways of producing more sustainable masks, using materials that were reusable, recyclable and biodegradable.

Eco-friendly masks were made from surplus fabric and all kinds of clothing that were no longer useful. They also began to be produced from cork; others were developed from hemp and some from rice paper with embedded seeds (see <https://www.mariebeebloom.com/>), allowing them to be “planted” in a pot or directly in the ground after use, giving rise to the growth of flowers over time. The manufacture of social masks was one of the ways that fashion found to combat waste and thus prolong the use of masks. These non-surgical protective devices, also known as “community masks”, were developed specifically for widespread use by the population in enclosed spaces. According to the guidelines of the National Institute of Pharmacy and Medicine in Portugal and the Directorate-General for Health, they should be made of cotton, polyester or combinations thereof. Their production followed national technical standards, allowing for the availability of affordable alternatives for individual protection in non-clinical settings. With this achievement, the fashion industry was able to directly influence consumer behaviour through the production of distinctive masks, whose use was promoted by public figures, including models in fashion shows and film and music personalities, among others.

In addition, Larchenko (2021) identifies a dual orientation in the design of protective items: a focus on technological innovation and the incorporation of aesthetic elements associated with fashion. The author highlights several models that illustrate this convergence, such as self-cleaning masks (*Pesquisadores Israelenses Criam uma Máscara Protetora Reutilizável*, 2020), transparent ClearMasks, de-

vices with artificial intelligence-assisted design (AI-design), customisable versions, as well as more sustainable solutions. “A mask takes mostly two functions – utilitarian and emotional, that is, new technological and fashionable part of the mask production/consumption” (Larchenko, 2021, p. 118). Similarly, the use of innovation has also led to the development of masks with eccentric designs, such as the futuristic brand Lumen Couture (n.d.), which has developed a mask equipped with an LED panel, with messages appearing on the mask controlled by an app installed on a mobile phone. The development of new concepts by the sector was marked by mutual assistance and cooperation with the health sector, with the aim of providing rapid responses to the physical protection of people.

The Fashion Industry's Appropriation of Medical Mask Production: Official, Officialised, Formal and Informal Production

The fashion industry’s appropriation of medical masks influenced society’s perception of their use. The medical mask became an artefact with cultural, social, artistic and historical value that influenced contemporary design, making it possible to combine it with other elements. During the COVID-19 pandemic, there was a proliferation of different models of face masks, reflecting the diversity of needs and contexts. Through research and observation of different face masks produced, this diversity can be organised into four categories of production: “official production”; “officialised production”; “formal production”; and “informal production”⁸.

The category of “official production” of medical masks during COVID-19 mainly involved government entities and/or public health organisations. The fashion industry did not participate directly in the production of medical masks; this was predominantly the responsibility of the medical textile industry, which specialises in medical and protective products. The main focus of the “official production” of medical masks is the safety and protection of public health, with distribution controlled by local or national governments, public health authorities and international organisations such as the Red Cross or the WHO. The production of public protective equipment⁹ follows strict safety and efficacy regulations and standards set by government agencies.

The category of “official production” of medical masks during COVID-19 mainly involved government entities and/or public health organisations. According to government regulations, the WHO (World Health Organization, 2020) and the European Commission (Breton, 2020), masks manufactured by the fashion

⁸The four categories of production presented are the result of an analytical proposal developed by the author based on direct observation, analysis and interpretation of the data collected in the context of this research.

⁹<https://www.farmaciadarrabida.pt/mascaras-de-protecao/21249-hero-healthcare-wear-mascaras-ffp2-nr-descartaveis-x10-5600730513044.html> and <https://www.farmaciadarrabida.pt/mascaras-de-protecao/21454-hartmann-foliadress-mask-mascara-cirurgic-iir-x10-6941558080967.html>.

industry were rigorously tested and certified by regulatory bodies. The Portuguese Technological Centre for the Textile and Clothing Industries partnered with the health sector, the National Institute of Pharmacy and Medicine in Portugal, the Directorate-General for Health and the Ministry of Economy in the manufacture of protective masks and personal protective equipment, as well as in the certification of community masks manufactured by companies in the textile sector and others. The Portuguese Textile and Clothing Industry Technology Centre was authorised to issue declarations of conformity, enabling manufacturers and consumers to recognise protective masks as reliable, tested and validated products in laboratories accredited by the Directorate-General for Health; as a result, the masks bore the seal “Masks – COVID-19 Approved”.

At the same time, internationally renowned luxury brands produced medical masks with the approval of various government agencies. This was the case with Louis Vuitton, according to *GQ* magazine (“Louis Vuitton Reabre Fábricas na França Para Produção de Máscaras Faciais”, 2020), which, at the beginning of the pandemic, responded to the French government’s call to increase the production of protective equipment; thus, the brand dedicated its efforts and manufactured thousands of medical masks in collaboration with Mode Grand Ouest¹⁰, approved by different government agencies, intended to protect healthcare professionals. Similarly, according to Mello (2020), Prada produced protective equipment at the request of the Tuscany government in Italy at the company’s factory in Perugia; the brand manufactured medical coveralls and thousands of medical masks to protect healthcare professionals. During COVID-19, the “officialised production” of medical masks by the fashion industry is characterised by partnerships with health institutions and government regulations, depending on the country, for clinical and hospital use. In addition, the masks were subject to rigorous testing to receive safety certifications issued by the relevant health regulatory bodies (Figure 1), with the aim of protecting against and preventing the transmission of viruses.

¹⁰It is a French business group in the textile industry that supplies materials for the textile and clothing manufacturing sector. They are manufacturers of clothing, leather goods, furniture, service providers, design offices, ready-to-wear brands, and image clothing brands, among others, through fashion designers and their expertise (see <https://www.modegrandouest.fr/>).



Figure 1: *CITEVE-certified personal protective community mask*
Credits. Prochef and CITEVE

On the other hand, the category of “formal production” of medical masks involved fashion, style, creativity, and social status. This category of appropriation by the fashion industry refers to established fashion and luxury fashion brands, as well as renowned designers, who adapted their creations and modernised the mask as an object, going beyond health requirements and turning them into fashion items. Although some masks meet basic protection standards, what dominates is aesthetics, exclusivity and brand value.

Luxury fashion has redefined the medical mask, turning it into a fashion accessory capable of being an item of artistic and cultural expression. As a result, medical masks became available in different styles and high-quality materials, which were also used in sophisticated marketing campaigns, adding value to the brand by highlighting the combination of safety and style, often sold at high prices. This is the case of designer Michael Ngo, according to Hirsch (2020), who used materials such as linen, cotton, polyester and even Swarovski crystals in the manufacture of masks at exorbitant prices; however, all profits were donated to the Los Angeles Food Bank. Similarly, the Off-White brand made 100% cotton masks, revealing that the accessory was not certified but that it followed certain quality rules and that all profits would go towards the fight against the COVID-19 pandemic.

Haute couture designer Olivia Hainaut produced different luxury masks decorated with pearls, jewels and precious stones, as well as gold appliqués. On the other hand, fashion brands and designers took advantage of high-profile public events to showcase their eccentric creations to the world, such as the *2021 Grammys* and the *2021 MTV Video Music Awards*, among others. Fashion shows are also an example of how different concepts and themes related to the pandemic can be presented, as in the case of Christian Siriano’s Spring/Summer 2021 collection, “Collection 37” (see <https://christiansiriano.com/pages/collection37>).

The designer told *Women's Wear Daily* that the main focus was to produce the clothes he wanted, recreating a fantasy environment so that people could escape reality for 20 minutes (Foley, 2020). Similarly, designer Richard Quinn presented his Autumn 2020 collection, highlighting a concept that differed from the usual medical mask, completely covering the face (“Richard Quinn RTW Fall 2020”, 2020). On the other hand, the creation and marketing of certain masks made them objects of desire and collector’s items, with limited productions and luxury pieces made exclusively as one-offs. Designers and artists have created exclusive pieces that stood out for their uniqueness and aesthetic value. One example is Lance Victor Moore, creator of Red Quills, a piece that combines natural and luxurious materials such as porcupine quills and Swarovski crystals. Similarly, artist James Merry produced a gold mask adorned with real pearls, which is also considered a unique luxury item (<https://www.instagram.com/p/CErkM2-jqgZ/>).

Also, designer Miss G Designs adapted her creations and added a different concept to the medical mask, creating unique pieces available to order¹¹. Therefore, the “formal production” of medical masks by the fashion industry now combines aesthetics with sophisticated designs, luxury with high-quality materials, style and status, depending on the designer’s preferences and the customer’s needs. The “formal production” of masks also stands out for complementing clothing, formalising the mask as an integral part of fashion trends and as a work of art.

In contrast, the category of “informal production” of medical masks during COVID-19 involved independent manufacturers and seamstresses, unknown artists, and local entrepreneurs, among others. The shortage of protective masks led to the manufacture of homemade and handmade items. On the one hand, people began to make masks at home, using available materials such as old clothes, and they shared the designs in online tutorials¹² using simple sewing techniques. Meanwhile, small sewing businesses and artisans seized the opportunity to make stylish face masks with different fabrics and customised features, allowing users to express their identity and tastes. The production of these masks became a more accessible and personalised alternative for the general population in non-hospital settings. In addition, informal masks could be used more often, as they were washable and reusable, which raised awareness and reduced the excessive use of surgical masks that ended up in the rubbish or the oceans, highlighting a concern for the environment. The Directorate-General for Health (Direção-Geral da Saúde, 2020) decreed that these masks would henceforth be known as non-surgical masks, that is, community or social masks, constituting an additional measure for the protection of the community¹³.

¹¹During the research, it was possible to contact the designer via Instagram to understand the work and techniques applied, as well as the value of the pieces. The pieces can be viewed at <https://www.instagram.com/missgdesigns/>.

¹²See <https://www.youtube.com/watch?v=BJ5I3NSxu20>; <https://www.youtube.com/watch?v=hN9GLVrNbj0>; <https://www.youtube.com/watch?v=wBU2gDIHuaQ>.

¹³<https://www.ledauphine.com/edition-genevois-chablais-bellegarde-pays-de-gex/2020/04/16/coronavirus-reignier-esery-elle-utilise-des-soutiens-gorges-pour-fabriquer-des-masques-de-protection>.

Thus, the “informal production” of (social) masks by the fashion industry during COVID-19 directly helped the healthcare sector by flexibly and quickly adapting to the new needs of the population, developing unique masks, even without certification from the competent authorities. The manufacture of masks in small sewing businesses provided a source of income for people affected by redundancy or layoff¹⁴; it also helped the local economy through the production of masks by artists and craftspeople, which were sold in small shops, street markets and, mainly, on online platforms. The informal manufacture of masks democratised luxury trends and standards established by major brands, making them accessible to the entire community. However, it was not only the trickle-down effect¹⁵ that was observed in this type of manufacturing but also other patterns or experiences, such as masks for men with long beards (Figure 2).



Figure 2: *Masks for men with long beards*
Credits. Niura Fashion House

In addition, the manufacture of masks in “informal production” has alerted the world to the need for greater social and environmental awareness; responsible production has involved the use of available materials, such as the reuse of fabrics or disused clothing, avoiding the production of new products.

¹⁴It involves the suspension of the employment contract or a reduction in working hours. According to the Portuguese Social Security website, layoffs are intended to respond to economic difficulties faced by a company for a certain period due to market reasons, structural or technological reasons, disasters or other events that affect the normal activity of the company (Segurança Social, 2022).

¹⁵According to George Simmel (1905/2014), fashion follows a logic of social distinction and imitation, spreading from the upper classes to the lower classes in a movement later called the “trickle-down effect”.

The Symbolic Status Acquired by Medical Masks After Their Appropriation by the Fashion Industry

The fashion industry has turned medical masks into a symbol of social responsibility and solidarity in many communities, influencing their use and acceptance in everyday life and giving them a complex and multifaceted status. “It is a two-way street: social changes influence fashion, but fashion also ends up influencing or reinforcing social changes” (Klen & Dazi, 2020, p. 175). Thus, the mask has become both a functional item and a fashion accessory with social, political, cultural and artistic significations.

According to Matos (2020), fashion has successfully incorporated the medical mask into people’s lives, making it an indispensable item of everyday clothing; designers and brands quickly adapted their production to include the manufacture of masks. Their use was seen as an act of responsibility for the protection of others and oneself, acquiring the symbolic status of social responsibility and solidarity. In this context, the fashion industry reflected and debated sustainability and ethics in the production of protective masks, as well as their short lifespan, revealing the depletion of resources and pollution of the environment. As noted by Avelar (2020), fashion developed new concepts and produced social masks in a way that minimises the environmental and economic impact on families. On the other hand, technological innovations have been remarkable, such as masks made from antiviral fabrics, electronic masks and masks with additional features¹⁶. In this case, the mask has become a symbol of sustainability and innovation.

However, Cardoso (2020) argues that fashion designers and brands, from small companies to luxury labels, have produced masks as a way to promote and advertise their brands and their work in order to reach consumers, resulting in collaborations with the healthcare sector or special collections that were sold as both protective and fashion products. In this perspective, Rafael (2020) notes that the emergence of masks made from a wide range of materials, shapes, colours and patterns has led the fashion industry to adapt and transform the mask, originally designed for medical purposes, into a symbol of identity and style. This change allowed individuals to choose from a variety of models, those that best complemented their clothing, as well as serving as a way to communicate aspects of their personality. “Masking (...) is precisely the disguise, the fantasy we wear, the fashion we follow, which reveals, beyond the surface of appearance, aspects of our authentic identity and desire” (Calefato, 2021, p. 109). In the context of the pandemic, the act of masking has ceased to be a voluntary choice associated with individual expression and has become a health requirement. As a result, the fashion industry has redefined the status of the medical mask as a fashion accessory, an extension of the wardrobe. However, the diversity of masks produced by the industry, particularly luxury fashion, has also made them a symbol of social inequality and divergent ideologies, with a tendency to

¹⁶<https://www.gettyimages.pt/detail/fotografia-de-not%C3%ADcias/fashion-protective-face-mask-is-on-display-at-fotografia-de-not%C3%ADcias/1210648378?adppopup=true>.

transform a utilitarian item into a product of desire; only a few people could afford high-quality masks with exclusive designs, highlighting social disparities in priorities and values in times of crisis.

Final Considerations

During the COVID-19 pandemic, the fashion industry has demonstrated a remarkable ability to adapt to emerging health and social demands. Despite the economic downturn caused by global lockdowns, the sector has not ceased its activity. On the contrary, it has reinvented itself by incorporating technological solutions into the manufacture of fabrics with antiviral and antimicrobial properties, thus contributing to the containment of the spread of the virus.

Collaboration between the fashion and healthcare sectors has driven the development of new products and fostered the emergence of local initiatives, as well as the reorientation of established brands, including luxury brands, towards the production of face masks. This reconfiguration of the mask as an object — from a strictly medical device to a fashion accessory — has revealed a significant transformation in its symbolic and aesthetic function, which has become part of everyday clothing as an expression of identity and style.

The emergence of masks made from sustainable fabrics — breathable, reusable, recyclable and biodegradable — highlights the industry's growing attention to environmental responsibility. At the same time, the participation of public figures and prestigious brands has contributed to the social legitimisation of the mask as a fashion item, influencing consumer behaviour and setting visual trends.

In this context, the appropriation of masks by fashion reflected not only a pragmatic response to the health crisis but also a manifestation of cultural and individual resilience. The need for protection was accompanied by a search for aesthetic and symbolic meaning, reiterating the role of clothing as a means of visual communication and adaptation to new realities.

The fashion industry mobilised, creating a network of solidarity and support for professionals who dedicated their efforts to the collective well-being during a period marked by uncertainty and adversity. Through the production of masks and other protective equipment, as well as the creation of awareness campaigns and donation drives, fashion took on an active and interventionist role in combating the health crisis. It also developed and presented visual and symbolic narratives that reflected the social context of the pandemic, establishing an important milestone in global history and the collective imagination.

The appropriation of the mask by fashion was not limited to its aesthetic function but was accompanied by a reconfiguration of its social meaning. This convergence between health, culture, economy and individual expression reinforces the idea that fashion, as a social phenomenon, is both a reflection and an agent of trans-

formation. Thus, the mask has become a paradigmatic object of the pandemic, revealing the intersection between functionality, symbolism and identity in the construction of contemporary fashion dynamics.

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