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Fashioning cultural entrepreneurship. The role of heritage in dissemination, didactic and research activities among stakeholders

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As a Cultural and Creative Industry (CCIs), Fashion promotes the establishment of cultural ecosystems, defined as environments in which different actors are driven to produce and consume artefacts, services, and strategies highly dependent on heritage. However, fashion heritage, encompassing tangible artefacts, technical know-how, and socio-cultural meanings embedded in territorial traditions, is often locked within private and corporate archives, limiting its accessibility and potential for broader societal impact and cultural accessibility. This study addresses the challenge of decoding and mobilizing such implicit heritage to drive cultural entrepreneurship, interdisciplinarity, and the development of new professional figures capable of bringing the intrinsic value of CCIs back to life. In light of this scenario, the article addresses the role of fashion heritage within cultural entrepreneurship initiatives, focusing on three main actors - fashion companies, public museums, and academia - and providing an overview of the types of dissemination, didactic and research programs adopted and the pursued objectives. The strategic model of the Gianfranco Ferré Research Center at Politecnico di Milano will be presented as a best practice in integrating fashion cultural heritage within a comprehensive framework of research, education, and dissemination activities within academia and with spillover effects on the entire fashion system. By highlighting the potential for heritage to impact and benefit the broader CCIs contexts, this study contributes to the literature on fashion heritage and cultural entrepreneurship by offering a replicable model for leveraging archives as drivers of educational value as well as cultural and social sustainability in fashion.

KEYWORDS

CCIs, fashion heritage, cultural entrepreneurship, cultural ecosystems, Gianfranco Ferré Research Center, fashion companies, public museums, academia

Introduction

As essential to many innovative and entrepreneurial processes, such as the formation of new businesses, organizational transformation, and strategic innovation (Soublière and Lockwood, 2018, p. 1), culture has served as a baseline for the formation of CCIs, as sectors of organised activity whose principal purpose is the production or reproduction,

promotion, distribution and/or commercialisation of goods, services and activities of a cultural, artistic or heritage-related nature (UNESCO, 2009). Fashion, as a key component of CCIs (Executive Agency for Small and Medium-sized Enterprises et al., 2016), has consistently embraced innovation, driving industrial development and fostering cultural growth across nations. At the same time, it inherently incorporates cultural and technical expertise, along with craftsmanship, resulting in artifacts that carry layers of cultural memory embedded in history. These artifacts are defined by their manufacturing and assembly techniques and serve as reflections of socio-cultural, economic, and political changes (Muzzarelli et al., 2010, p. 10). In this context, and among other CCIs, fashion emerges as a unique example of an industry that has developed sense-making processes (Bertola et al., 2016) to chart innovation pathways driven by its cultural dimension. The values of the past could contribute to build a new contemporary cultural perspective (Fiorani, 2006) thanks to the capabilities of the fashion system to use its heritage not only as a differentiation element but also as a living asset that can be continuously reinvested in and produce new knowledge. This cultural heritage could be reinterpreted through a contemporary market vision, hybridised through innovative methods and processes, and reintroduced with unexpected languages and values (Colombi and Vacca, 2016).

Despite this, currently, the fashion industry is undergoing a significant transformation, marked by a re-evaluation of its traditional business model, which has been in place since the 1980s and, in recent decades, has been primarily driven by economic and financial imperatives (Maddaluno, 2018). This shift is due to various factors influencing behavioral changes, including the impact of digitalization, technological advancements, and the increasing need to meet sustainability standards and benchmarks.

In light of this, the cultural dimension of fashion within new entrepreneurial contexts remains underestimated (Brown and Vacca, 2022). This gap leaves open opportunities to redefine entrepreneurial strategies and business frameworks that leverage the implicit knowledge that resides in its cultural heritage (Calanca, 2020) and that could restore fashion's value and relevance in responding to socio-cultural needs. This setting needs to leverage on fashion's multidisciplinary dimension where different profiles, perspectives and methodologies collaborate to shape a "design multiverse" (Manzini and Bertola, 2004) that can meaningfully renovate creative and product development processes.

The role of fashion heritage within cultural entrepreneurship initiatives

In recent years, the scientific debate within CCIs has shifted towards those products with high cultural and symbolic value

(Bertola et al., 2016) that have enhanced the cultural heritage valorisation policies of brands and companies operating within the fashion system through the reorganisation and optimisation of their cultural heritage system. Fashion companies, indeed, show increasing attention to those intangible values that define their brand identity, leveraging their "cultural capital" (Throsby, 1999), i.e., manufacturing skills and know-how, often of an artisanal and territorial nature, which distinguish their recognizability and brand equity. "In the current context, cultural heritage is widely recognised as a source and a resource. On the one hand, it is evidence of the past, documents our origins, and is "a shared source of remembrance, understanding, identity, cohesion and creativity" (Council of Europe, 2005, Article 3.a). On the other, it is a resource from which we can draw cultural, social and economic benefits for the future (Council of Europe, 2005, Preamble; Article 2.a; Article 7.c; but also Articles 1, 3 and 5)." (Cerquetti et al., 2022, p. 66).

A phenomenon of temporal reversibility (Montemaggi and Severino, 2007) is observed, opposing the incessant modernism to trace a dimension of cultural heritage that explores the origins and history of the company, intertwining this past with the present and attempting to outline a value system based on the authentic redefinition of the company's identity (Pine and Gilmore, 2011). The objective is to rediscover the very sense of existence and legitimise its authority in an increasingly contaminated market with contrasting and fragmented languages. As Urde et al. (2007), p. 5, argue, "heritage brands" use their cultural heritage as a value proposition and positioning to differentiate their approach from other brands operating in the sector. This approach, as supported by the three scholars, is measured in five attributes, which are: history, longevity, track record, core values and use of symbols. 1) History means that even if every brand has its own history, only Heritage Brand is the one that considers its history crucial to define its identity. 2) Longevity represents the permanence over time of a specific set of values in the customers' recognition associated with the brand. So, history and longevity are the result of a consolidated relationship that brands can establish with the market, and it comes from a process of sedimentation of the intangible values and attributes of the brand. 3) Track records mean the performance achieved by a company in terms of credibility and trust over time. While tracking records may reveal what a company does, enhancing its 4) core values may reveal who the company is. In fact, the core value represents the permanent and intangible attributes that the brand shares with continuity and consistency through designs, practices, and actions, becoming an integral part of the brand identity and, with time, of the brand's heritage. Thus, the use of symbols-in the fashion field-can be translated into the 5) stylistic codes of a brand, that is, the set of signs, symbols, iconic elements, fitting or pattern and permanent codes that

have been developed through the evolution of the brand and then embodied in brand products/services, communication, and retail space.

All these aspects contribute to build fashion cultural heritage that has been archived through years as a way to carefully "preserve" and "safeguard" memory through a variety of products and documents. Archives represent the "biography of the object itself" for CCIs (Kopytoff, 1996, p. 64) and, therefore underline the intrinsic value of intangible values in relation to the social, geographical and production context. They provide an objective witness that, through patents, sketches, material sheets, prototypes, photographs, and advertising campaigns, represents not only a support to the "collective memory" (Halbwachs, 1992, p. 120) but can also generate economic advantage when this diversity of materials is transformed into complementary forms of knowledge valorisation and reintegrated into the design and entrepreneurial system. On one hand, archives emphasise an iconographic dimension of goods and objects that have endured over time while maintaining their unchanged value as symbols. On the other hand, they highlight a new discursive practice that, through storytelling, underpins and translates brand heritage into a new expressive identity substantiated from the past and reasserted through new codes towards the present.

In this context, the corporate archive becomes an important tool of cultural entrepreneurship. It is not just a place where the tangible memory of a company is preserved. Rather, it is a collection of diverse and layered documentation capable of reconstructing and activating memory understood as a combination of social, cultural, scientific, and productive relationships. The archive thus transforms from a static system into a dynamic entity, constantly redefining its ontological nature:

"Interpreted as such, an archive becomes an instrument of anticipation that can set out the material and production culture of an enterprise, a generative/transformative tool which focuses not only on shaping logical perceptive processes of reinterpretation of documentation and artefacts, but also profoundly influences the way in which actions and relationships between artefacts, stimuli, inspirations and contemporaneity are conceived, designed and planned" (Colombi and Vacca, 2016, p. 11).

Materials and methods

This section outlines the methodology used to investigate the role of fashion heritage within cultural entrepreneurship initiatives. By examining the interactions between identified cultural and creative actors, this study aims to uncover how fashion heritage can be utilised to foster different kinds of

cultural entrepreneurship, especially leveraging social and cultural sustainability to provide a comprehensive understanding of the innovative funding schemes at the baseline of these initiatives.

The main research questions guiding this study are:

- 1. Which actors are involved in utilising fashion heritage to drive cultural entrepreneurship initiatives?
- 2. What programs do they activate to improve cultural entrepreneurship by having the archive as a hub for innovation?

In order to answer the identified research questions, three major methodological steps have been followed:

Theoretical research

A literature Review has been conducted with the aim of primarily presenting an interpretive model encompassing local cultural ecosystems, conceived as networks of cultural and creative actors and the related activities performed in specific territories to leverage fashion heritage towards different levels of cultural entrepreneurship (Borin and Donato, 2015; Dameri and Demartini, 2020).

For the purposes of this article, a differentiation based on the **ownership** and **type of activities** developed and proposed by fashion archives is necessary to define the method for answering the research questions. This allowed for an overall understanding of the theoretical debate surrounding the research questions.

Literature shows that, in fashion, culture-intensive contexts, three are the primary actors that stand out as catalysts of cultural entrepreneurship programs and initiatives (Colombi and Vacca, 2016; Pecorari, 2019; Peirson-Smith and Peirson-Smith, 2020; Vandi, 2022):

• Fashion companies that leverage their archives as strategic assets and cultural repositories for brand prestige and celebratory purposes or to further develop brand identity and image (Martin and Vacca, 2018) towards cultural production of new collections. Indeed, archives concur with what Nissley and Casey (2002) define as "organisational identity," "the key element of an organisation that describes its essence, that distinguish the organisation from others' members' experiences of and beliefs about the organisation as a whole" (Nissley and Casey, 2002, p. 40). Additionally, the company's legacy becomes an asset for design practice, helping to translate intangible values and stylistic codes into tangible products thereby codifying and manifesting the company's cultural roots and intrinsic know-how. Consequently, companies tend to closely guard and maintain their cultural reservoirs privately, and the circulation of ideas and the integration of

various knowledge is facilitated only to ensure a significant competitive advantage over competitors (Bonti, 2014; Verona and Ravasi, 2003)

- Public museums, examining how fashion can convert their curatorial practices into user-centred platforms drawing on the power of display (Loscialpo, 2016, p. 226) to encourage community co-creation and inspire dialogue. Melchior (2011), p. 5, states that we are witnessing a transition in fashion museology, moving from a focus solely on collections of objects to an emphasis on conveying expressions of ideas and concepts linked to intangible cultural heritage. This shift contributes to restructuring the strategic focus of museum offerings, developing various forms of cultural entrepreneurship, and fostering knowledge transfer among CCIs (Cerquetti et al., 2022).
- · Academia—particularly referring to universities and educational institutions dedicated fashion studies-today presents itself as the custodian of archives of significant historical and cultural value, contributing to scientific and educational knowledge through the historical heritage in its possession (Skov and Melchior, 2008), activating it through diverse curricula of didactic and disciplinary offers. This facilitates in new generations the construction of an innovative vision, based on an interdisciplinary approach to archival materials and knowledge, and augmented by the discovery of the application of new technologies (Bernabè and Tinti, 2020) within knowledge translation processes. The university thus becomes a multiplier of opportunities, "a cultural mediator and knowledge catalyst in a cultural ecosystem" (Dameri and Demartini, 2020, p. 1887) thanks to interinstitutional networks—at local, national, international levels—connecting it to significant actors, such as in the case of partnerships with private entities that often already characterize academic projects or activities falling within the scope of the Third Mission (Compagnucci and Spigarelli, 2020).

As stated by Urde et al. (2007) "first the heritage must be uncovered, second it must be activated, and third it must be nurtured in a heritage-oriented mindset." (Urde et al., 2007, p. 11). This concept has been adopted by the author to build an interpretive framework to answer to the purpose of the research. Thus, the framework proposed below encompasses dissemination (with the aim to uncover), education (with the aim to activate) and research (with the aim to nurture) activities. This model will help in understanding how fashion heritage can be leveraged through cultural entrepreneurship in processes of knowledge transfer and meaning cultivation with the aim of preserving and transferring the knowledge that is embedded within cultural capital (Throsby, 1999), in a time where still cultural and creative sectors are suffering from impoverishing of meaning and values (Brown and Vacca, 2022).

For what concerns cultural dissemination, evolving from Axelrod's theory (Axelrod, 1997) according to which cultural agents interact and adopt traits from neighbours sharing similar features, thus propagating cultural elements across a population, we build on Nguyen et al. (2021) conception, considering multiculturalism and globalisation effects to evaluate their implications on cultural diversity, offering a thorough understanding of how cultural elements are transmitted and evolve within social networks. This updated framework is further refined by the concept of local cultural ecosystems proposed by Borin and Donato, (2015) as "a new way to conceive the cultural and creative sector with regard to its territory" (Dameri and Demartini, 2020, p. 1887). In this context, fashion culture, inherently influenced by intercultural exchanges yet deeply connected to its territorial roots, integrates into this set of values, further facilitating and enhancing cultural dissemination activities.

Education activities refer to processes of teaching and learning about cultural capital, local traditions, arts, values, and social practices of different communities and societies to cultivate cultural awareness, critical thinking, and a sense of global citizenship. Being a cultural asset in itself, fashion highly relies on didactic approaches where people can be engaged in various forms of cultural expression encompassing various disciplines, including history, literature, visual arts, and social sciences (Bertola et al., 2020). In recent years, didactic approaches have been transforming, especially in light of the impacts of digitalisation, which has further emphasised the concept of selfeducation and the multimodality of educational tools. Traditional methods of cultural education, often reliant on classroom dynamics and physical media, are being supplemented by digital resources that offer a more interactive, inclusive and personalized learning experience (Pecorari, 2019). These digital tools not only enhance the accessibility and engagement of cultural education but also support diverse learning modalities, allowing diverse audiences to delve into cultural heritage together with a whole set of digital literacy and critical thinking skills.

The research area spans a various set of activities carried on by fashion companies, museums and academia, all aimed at fostering cultural and social sustainability from activities dealing with the study and analysis of archival materials. Towards this aim, cultural ecosystems could foster a research culture aimed at detecting the most effective methods of research and acquisition of knowledge integrating traditional archival practices with innovative methodologies that leverage interdisciplinarity and knowledge exchange among different disciplines and stakeholders. In this context, digitalisation is highly contributing to this effort by providing advanced tools for the documentation, preservation, and communication of cultural assets that have radically brought a rethink of curatorial and CCIs assets and dynamics contextualized and applied to create innovative and valuable cultural pathways.

At the basis of these cultural and creative ecosystems is knowledge transfer that "detects the most effective and efficient methods of research and acquisition of knowledge within clusters/ districts/entrepreneurial ecosystems" (Dameri and Demartini, 2020, p. 1888) especially when dealing with urban regeneration and inclusivity among communities (Ferilli et al., 2017). The circulation of cultural knowledge through dissemination, education and research activities impacts and has been used to categorise cultural ecosystems' activities based on different degrees:

- 1. Micro Level (Individual): This involves personal initiatives and individual contributions to cultural entrepreneurship, focusing on how individuals leverage fashion heritage to foster innovation and "generate social capital and knowledge circulation that favour the spur of cultural ventures and initiatives" (Dameri and Demartini, 2020, p. 1896)
- Meso Level (Communities): This includes multiple partners and stakeholders highly relying on public funding and private sponsorships within organizations or communities that utilize archival assets for innovative practices.
- Macro Level (CCIs): This includes broader institutional frameworks and policies that support the scalability and integration of cultural entrepreneurship formats across the entire CCI landscape.

Desk research and case study analysis

Methodologically, extensive desk research was conducted to analyze various cases and identify the multifaceted uses of fashion archives for cultural innovation within the Italian and international fashion and textile sectors. Over approximately 5 years, an anthology of more than 100 case studies (Hammond, 2015) was compiled, informed by research from the Fashion in Process collective at the Department of Design, Politecnico di Milano, and a doctoral thesis authored by Angelica Vandi completed in 2024 "Archiving Fashion Futures. Design-driven Curatorial Practices Fostering Digital Innovation in CCIs." This database of case studies focuses on entities within the CCIs, with a particular focus on fashion, that leverage cultural entrepreneurship to implement impactful business strategies and invent new ways of experiencing fashion cultural heritage. From a cultural sustainability perspective, these strategies encompass activities in dissemination, education, and research aimed at preserving and transferring cultural heritage, meaning artisanal techniques developed by specific communities, technological innovations driving industrial advancement, and socio-cultural meanings derived from dressing as a fundamental act of human communication. This sample provided a sufficient database to analyze relevant case studies for this study's purposes. Through a qualitative analysis, involving in-depth desk research and archival visits (Yin, 2012; 2003), the selected case studies were explored to uncover heritage-based strategies (Brown and Vacca, 2022) employed by various entities. This inductive approach allowed new theories to emerge from empirical data rather than being restricted by existing theories. Indeed, according to Yin's (2012) Case Study methodology was chosen because it is appropriate when existing knowledge in the subject is insufficient, facilitating a comprehensive understanding of the subject. This research method provides tools to draw research conclusions as well as identifying meaningful insights in highlighted practices (Nixon and Blakley, 2012). Thus, selected case studies become best practices that-based on their business models-converge into the proposed framework, demonstrating its validity.

Following the preliminary desk research, the Gianfranco Ferré Research Center at Politecnico di Milano is reported as a best practice in the depicted field, having a model structured on dissemination, didactic and research activities that foster cultural entrepreneurship by involving cultural actors, industry professionals and multidisciplinary scholars, thus enabling innovation and making the archive a living platform of knowledge exchange.

Results

Below, the framework described is used to detail different kinds of cultural entrepreneurship, especially leveraging social and cultural sustainability to provide a comprehensive understanding of dissemination, education and research assets developed by Fashion Companies, Public Museums and Academia.

This is done in order to define which actors are involved in utilising fashion heritage to drive cultural entrepreneurship initiatives as well as highlighting which programs they activate to improve cultural entrepreneurship by having the archive as a hub for innovation.

Fashion companies

Fashion Companies play a crucial role in the cultural landscape, functioning as both creators and custodians of cultural capital in the form of culture-intensive goods, such as garments, accessories, and ephemera (Pecorari, 2021), results of an articulated technical, material and intangible culture. This is especially referred to as the culture-intensive design and production processes employed, as a result of the connection with a specific territorial area, as evidence of know-how and craftsmanship (Martin and Vacca, 2018). These artefacts, thus resulting from collective processes, are active agents in shaping

TABLE 1 Summary of culture-intensive activities by fashion companies.

Dissemination • Heritage Marketing • Capsule Collections based on iconics	Didactics • Internal Academies • Activation of community know-how	Research • Product R&D • Corporate foundations			
Cultural and Social Sustainability					
Corporate Social Responsibility Urban Regeneration					
Community Co-creation					
Community Co-creation					
Cultural Entrepreneurship Impact					
• Micro (new professionals)					
Meso (local communities)					

both collective and individual identities within social communities, thus becoming cultural products in their own right (Bertola et al., 2016, p. 5). Over time, companies have increasingly recognized the high value of their archives-falling into what Urde et al. define as heritage brands (Urde et al., 2007, p. 6)- not only for preserving historical memory but also for enhancing brand recognition to showcase iconic products while using them to propose new designs for market growth. Embodying the combination of both historical references and ongoing market development makes them distinguish in the market, allowing them to signify the products and services they offer through storytelling. Indeed, stories can provide the accounts needed to explain, rationalize and promote the multifaceted layers of heritage values, coming to inform new models of entrepreneurship. In this context, stories function to identify and legitimate these new models of entrepreneurship that will be grounded at a high cultural level, thus "mediating between extant stocks of entrepreneurial resources and subsequent capital acquisition and wealth creation." (Lounsbury and Glynn, 2001, p. 546).

Dissemination

When dealing with dissemination activities (Table 1), these dynamics illustrate how fashion brands leverage their heritage not only as a marketing tool but, above all, as a means to sustain and augment cultural narratives, thereby reinforcing their position as cultural actors. Despite literature primarily concerning tourism and museum studies, heritage marketing (Urde et al., 2007) becomes particularly interesting in investigating the context of fashion. Heritage marketing in fashion involves strategic activities that connect a brand's historical assets with contemporary audiences, enhancing brand identity and loyalty. During the first decade of the 21st century, established brands with extensive archives created brand museums to preserve and pass on their history through institutionalised methodologies. These included permanent and monographic exhibitions focused particularly on the brand's creative director, as well as temporary and thematic exhibitions that allowed the public to connect more deeply with the historical and socio-cultural context of which the brand was a living testimony. This is the case of the Musée

Yves Saint Laurent¹ which goes beyond its monographic ambitions, by designing the exhibition spaces to recreate the original atmosphere of the haute couture house in order to address the history of the twentieth century and the haute couture traditions that accompanied a way of life that no longer exists. Another dissemination activity employing heritage as the main asset for market innovation happens when brands develop capsule collections based on iconic archival pieces such as the "Ferragamo Creations"² collection relaunch where the historical manufacturing processes characterising the Ferragamo's know-how about shoe-making have been codified and reintroduced historical in new designs that replicate the aesthetic and value of the historical ones. Moreover, the brand's heritage and related iconic pieces could be communicated through engagement activities to increase a community-centred feeling in customers. To this end, in 2023 Max Mara organised a set of celebratory events for the 10th anniversary of its Teddy Coat³ -a design inspired by an archival coat from the 80s- to bring clients closer to the heritage of the brand related to manufacturing know-how and recognisable silhouettes.

Didactics

Brands are becoming more aware of the importance of sustaining relationships and personal connections with the artisans and manufacturers that luxury fashion relies upon as a means to retain and retrain young people for the longevity of luxury craftsmanship. Indeed, for the company, preserving know-how has become an increasing concern (Brown and Vacca, 2022, p. 592) and to this end, brands are currently establishing *internal academies* aimed at reinforcing relationships with artisans in order to codify their expertise and pass it on to future generations of designers and manufacturers (Table 1). This is the case of the Accademia

¹ https://museeyslparis.com/en/

² https://www.ferragamo.com/creations/it/ita

³ https://it.maxmara.com/editorial/anniversary-teddy-ten

Labor et Ingenium by Bottega Veneta,⁴ which serves as a permanent workshop where new hires and external students can learn from master artisans through training activities, workshops, and lectures.

The Prada Group Academy⁵ developed an internal didactic path divided into Industrial, Learning and Development, and Stores training tracks that combine offline and online sessions for the development of technical skills and the preservation of artisanal and industrial know-how, particularly in light of sustainability, a topic that has become strategically important at all levels throughout the various business functions. Another didactic approach towards cultural entrepreneurship focuses on activating communities' know-how. This is characterized by the development of innovative and disruptive business models that invest in cultural heritage and fashion practices to ensure the historical continuity of codes and meanings. One of the foundational projects is "I Was a Sari," founded by the Fashion in Process Research Collective and Stefano Funari in 2013.6 Since 2018, this project has been part of Gucci CHIME's commitment to generating positive change for women of all ages around the world.⁷ Gucci supports the project through the establishment of educational programs aimed at acculturating Indian women in artisanal work and the creation of Indian saris, a craft previously dominated entirely by men.

Another approach emphasises social innovation driven by fashion companies and independent designers to uplift specific communities. It focuses on vulnerable groups, such as prisoners, migrants, and the unemployed, who lack a predefined cultural heritage (Brown and Vacca, 2022, p. 596). The investment in cultural capital involves engaging master craftspeople skilled in distinctive techniques and processes rooted in local traditions. An example of this cultural capital investment is Tod's Bottega dei Mestieri, which highlights the significance of vocational training conducted together with San Patrignano,8 a community for drug addicts. The community members apply the skills learned from Tod's Group technicians and artisans, who transfer essential know-how for creating prototypes to develop training that fosters social development and positive growth, thereby improving living standards and providing opportunities for marginalised minorities' self-affirmation through dignified work.

Research

Research activities (Table 1) run within fashion companies concern in-house research and development sectors aimed at

4 https://www.bottegaveneta.com/it-it/accademia-labor-et-ingenium.html

innovating product features such as textiles, applications, manufacturing and assembly techniques. In this context, environmental, cultural and social sustainability plays a key role in the redefinition of design and manufacturing assets. Cultural sustainability is the fulcrum around which innovation is built, which allows new creations to be given value and meaning based on the heritage that characterises the company. The Stone Island Prototype Research_Series9 feeds into this trajectory, as the brand annually designs native limited editions reinterpreting archival pieces made from fabrics and treatments resulting from research and experimentation that have not yet been industrialised. Another interesting example is Moncler Genius,10 conceived as a hub of exceptional minds external to the brand who work together with internal teams towards product innovation driven by a curatorial approach to outline a composite creative action based on the authentic performance of Moncler garments.

Fashion Companies have also developed research hubs in the form of corporate foundations as significant catalysts to promote brand values while reviving them through open calls and residencies for artists and creative communities in order to have a beneficial influence on cultural entrepreneurship. RED CLUB x Cartier¹¹ was established in 2019 as a community of young multicultural entrepreneurs aged 20-40 years old, called by the brand for entrepreneurial endeavours that provide techdriven solutions to shape the future of people and the planet in a sustainable way through their startups. Throughout the community, they share their experience and really aim at positively shaping the next generation of leaders. In parallel, the Ermenegildo Zegna Foundation provides pure patronage or development funding to new generations of creatives who embody the values and principles behind the brand, such as self-sustainability.

Considerations

Most of the activities listed are in line with Corporate Social Responsibility (CSR), a concept that illustrates how companies voluntarily engage by structuring their responsibilities to contribute to a cleaner environment and a more equitable society. While such actions affect all stakeholders within the cultural ecosystem and influence the long-term success of companies, they still face inclusivity limitations. Especially when analysing the business model of the internal professional academies, access remains mainly restricted to preserve cultural know-how, which tends to remain proprietary and secretive. In this case, the companies' need

⁵ https://www.pradagroup.com/en/sustainability/people-csr/pradaacademy.html

⁶ https://www.fashioninprocess.com/our-works/projects/i-was-a-sari/#:~:text=I%20was%20a%20Sari%20started,value%20linked%20to%20the%20local

⁷ https://equilibrium.gucci.com/it/gucci-chime/

⁸ https://www.todsgroup.com/it/sostenibilita/territorio

⁹ https://www.stoneisland.com/it/stone-island/stone_island_ prototypeseries08_section

¹⁰ https://monclerworld.moncler.com/genius/it-it/

¹¹ https://redclubcartier.com/en-US/

for knowledge transfer stems from the search for innovation to enhance market competitiveness (Kogut and Zander, 1993).

Moreover, extant research has demonstrated that transferring knowledge across a firm's external boundary is more challenging than transferring knowledge within the firm due to "conflicts of interest, knowledge protection strategies, lack of trust, and difficulties in sharing a common language" (Dameri and Demartini, 2020, p. 1888). Furthermore, brand-funded initiatives have the potential to contribute to urban regeneration and broaden the concept of cultural ecosystems to include external communities, as evidenced by educational activities aimed at engaging disadvantaged communities. However, despite the fashion system's continuous orientation towards innovation (Colombi and Vacca, 2016, p. 10), research developments through cultural heritage still constitute endogenous resources (Cerquetti et al., 2022, p. 68), matured within the company and are driven primarily by market requirements. This focus limits significant benefits and impacts on external communities, bounding the impact of cultural entrepreneurship to the micro and meso levels. Indeed, cultural networks revolving around fashion companies often converge towards corporate interests and related processes, falling within the marketing field. Dissemination activities are often aimed at creating awe in the public, reinforcing the idea that fashion is for the few and that its democratisation and equity are still far from being achieved.

Nevertheless, the trajectory these companies are marking is noteworthy, indicating a shift towards collectively held and transferred knowledge within an industry that has traditionally guarded and protected its heritage from public access. In this context, companies' heritage becomes exogenous, contributing to the present and future needs of the territory in which the company has roots and is immersed (Cerquetti et al., 2022, p. 68).

Public museums

The cultural heritage field is currently facing a process of transformation at different levels of cultural and curatorial production, which is guiding it toward virtuous and sustainable changes. In our post-modern society, museums have begun to redefine their function, moving beyond mere conservation and preservation spaces to incorporate education, engagement, and a special attention to social responsibility aspects (Marinescu, 2018, p. 185) as major impacts the museum can have on local and interconnected communities together with their urban dimension.

Furthermore, especially during the pandemic outbreak, museums have started to rethink their experiential models, which were highly focused on onsite representations. The representation of fashion within culture-intensive environments has always been driven by the tradition of dress and costume history, focusing on object-based narratives (Steele, 2008). However, there has been a significant shift in museums and archives' approach, moving from costume and dress to fashion as a comprehensive whole. This transformation, still in progress, is not merely an academic debate but reflects evolving archival strategies and curatorial interpretations in presenting fashion (Vandi, 2023). It marks a shift from an object-driven perspective to a holistic one that values ephemera and collateral materials, contributing to the relevance of fashion as a multi-voiced practice, an industry, and a language (Vacca and Vandi, 2023). In this context, cultural entrepreneurship oriented towards a design-driven approach becomes a driver for transformation and for fostering participation in innovation processes towards a more democratised idea of the museum as a cultural institution (Lupo et al., 2023, p. 3).

Dissemination

Even though the shift in the adoption of models of engagement and dissemination was forced by pandemic implications, which prevented physical participation in events and exhibitions, public museums have been finding value in this paradigmatic change (Table 2). This shift has led to a rethinking of approaches and processes characterising conservation methods, exhibition practices, and public engagement. Digital technology has played a massive role in this context, enabling museum staff to provide diverse audiences with access not only to the exhibitions themselves, which have become partially or entirely virtual, but also to the backstage and post-exhibition

TABLE 2 Summary of culture-intensive activities by public museums.

Dissemination Co-curation with different audiences Conferences, seminars, Podcast	Didactics • Experiential didactics • Engagement activities towards inclusivity	Research New models for storaging and restoration Curatorial Research			
Cultural and Social Sustainability • Urban Regeneration • Community Co-creation					
Cultural Entrepreneurship Level Micro (user-centred) Meso (community) Macro (intra-museum networks)					

phases. Indeed, through the establishment of various media channels, museums have created participatory models of cocuration with their audiences (Vacca and Vandi, 2023). In 2008, Breward already noted an inevitable generational and professional shift in the supervision of museum departments, transitioning from object-based expertise and a focus on collection preservation to access and inclusion initiatives driven by commercial imperatives. This shift has led to a virtual reinvention of the museum as a complement to the CCIs, "where the spectacular touring exhibition and costly gallery refurbishment take priority over the kinds of housekeeping activities (cataloguing, for example) that used to confer a sense of physical and intellectual ownership—and thus prestige—on the curator" (Breward, 2008, p. 84). The MoMu Collection Wall feeds into this paradigmatic shift, being an interactive multi-touch wall outside the museum where visitors can browse images, video material and information in five different languages also during the museum's closures,12 allowing for a comprehensive understanding of the amount of archival contents preserved, which would be unattainable through the selective exhibitions typically presented by museums. Another approach to involve communities in cocuratorial activities inside the public museum was proposed by K11 Musea in Hong Kong with the "Co-creation to Communities (Co2) Exhibition: Sustainability Meets Inclusivity"13 where students from academia together with NGOs and cultural institutions reflected around sustainability concepts to curate an exhibition focused around upcycling.

Another dissemination activity developed by public museums revolves around the *promotion of conferences*, *magazines*, *special issues*, *and podcasts* dealing with the behind-the-scenes of the museums or with analytical materials that investigate exhibition themes and deep dive into the actors involved, historical insights and interconnections with other archives. To this end, La Triennale di Milano¹⁴ is a standalone case for the plethora of media –i.e., their own magazine, a podcast series, periodical events and seminars, a dedicated newsletter–, it uses to disseminate curatorial contents and interviews with museum experts dealing with the discipline of Design as a whole.

Didactics

Also concerning didactics (Table 2), museums have turned their attention towards the delivery of sets of educational models highly depending on archival and exhibition contents, demonstrating how museums can function effectively as active educational institutions (Bertacchini and Morando, 2011),

fostering a deeper connection between their collections and the public.

On the one hand, they are managing to integrate and experiment with digital technologies as major channels to deliver their expertise and reach out to a wide public. These kinds of experiential didactics serve as additional catalysts for a variety of audiences around the museum's activities, and digital enters the dimension of inclusiveness to enable everyone to reach the museum and acquire its culture albeit asynchronously. The V&A Academy¹⁵ is a solid model for integrating museum collections into educational initiatives, offering a range of online and in-person courses, workshops and lectures led by experts and artists from the V&A to deepen participants' understanding of art history and creative skills. At the heart of these educational programs are the V&A's collections, which serve as source material for the curriculum dedicated to a diverse audience of students and teachers as well as adults and professionals in the cultural sector. The MoMu Fashion Museum in Antwerp has initiated a series of educational workshops in collaboration with the digital agency d_ archive,16 focusing on digitally reinterpreting heritage garments by learning how to use the 3D apparel visualisation software CLO3D, underlining the museum's commitment to integrating digital tools within its offer but also reflects a broader trend in the fashion industry toward the adoption of advanced technological tools.

Moving beyond a purely didactic and educational focus, museums have increasingly developed engagement and inclusive programs designed to attract diverse audiences across all age groups. These initiatives aim to familiarise visitors with the museum's social function as a "contact zone" (Schorch, 2013) between cultures or a "third place" (Oldenburg and Brissett, 1982) —a meeting place outside the workplace and the home where the preservation of cultural heritage is intertwined with education, entertainment, and social responsibility actions devoted to position museums as needed spaces for communities interactions and knowledge exchange. To this end, the "Club Museo a Mano" 17 developed by the Museo del Traje in Madrid is focused on reactivating the value of handmade techniques belonging to the museum's archival textile collection, which acts as the catalogue of techniques the "Museo a Mano" draws its workshops on. This club is a community space where individuals who share an interest in learning and recreating handmade techniques can participate and contribute their own proposals. Indeed, the club features a dedicated corner within the museum, designed to be a welcoming environment for the museum's members and craft groups seeking a space for

¹² https://dossantos.be/momu-wall

¹³ https://hk.k11.com/happenings/co-creation-to-communities-co2-exhibition-sustainability-meets-inclusivity-at-k11-art-mall/

¹⁴ https://triennale.org/magazine/serie/podcast

¹⁵ https://www.vam.ac.uk/info/academy

¹⁶ https://darchive.io/gallery/

¹⁷ https://www.cultura.gob.es/mtraje/gl/educacion/museo-a-mano.html

their gatherings. The Palais Galliera in Paris also offers recreational activities specifically designed for families centred around the museum's exhibition portfolio and include guided visits to the ateliers, where participants can view and learn about the pieces on display at the museum.

Research

In addition to being the custodians of unique pieces and facilitating research for those who access them, museums are often running internal research projects dedicated to developing new methodologies for the acquisition, preservation, and representation of cultural heritage (Table 2). The processes entailed in these projects have been significantly accelerated by digitisation and digital culture, which -as stated- are transforming organisational structures and portfolios of museum offerings (Lupo et al., 2023), thus fostering positive changes that may then have impacts on all CCIs. However, even though there is no one size fits all, "whether those goals are to scale the museum's mission globally or design a more multisensory exhibition experience or develop a networked collection management practice" (Giannini and Bowen, 2019, p. 7), museums are constantly and mainly investing funding in research for new models of restoration and storage techniques. This approach leverages new technologies and tools to better protect fragile heritage pieces, particularly textiles and various natural-fibre combinations that can be altered by time and environmental conditions, thus compromising the integrity of archival items

Back in 2016, the Costume Institute Conservation at the Metropolitan Museum of Art in New York started as a trailblazer with a digital conservation project with the Charles James fund,19 using a 3D scan to acquire the voluminous garments and produce a proxy of the human body according to their shapes, to allow for proper support of the dresses that cannot be stored flat in drawers. Even though not all scans are as precise and flawless as technology would have us believe, particularly when dealing with surfaces that reflect laser beams (Vandi et al., 2024), scanning technologies are becoming more widely available and reasonably priced, enabling the acquisition of high-quality digital twins for use in research and work. Moving toward restoration understood as the discovery of material culture preserved within fashion objects, the Key Scientific Research Base of Textile Conservation at the China National Silk Museum²⁰ has started research to analyse, test and identify textile-related cultural heritage through technological applications, with a

peculiar focus on the discovery of traditional craftsmanship

that constitutes the value of garments preserved in museum's

involves the searching for new ways to curate and communicate their collections publicly, reflecting on the hidden and implicit knowledge dimensions embedded within fashion artefacts, characterising manufacturing techniques, shapes and patterns, materials composition and the whole set of socio-cultural meanings carried out as reflections of certain historical periods. Curatorial directions here revolve around codifying new digitally-aided, interdisciplinary processes, such as Reverse Engineering, aimed at studying the garments to unfold their inner specificities (Vacca and Vandi, 2023). This is the case of the "From Pattern to Polygon" exhibition²¹ at Utrecht Centraal Museum - coordinated by Studio PMS and several young Belgian designers - that employed digital technologies to replicate fragile dresses and stage their kinetic dimension through virtual catwalks while studying and reinterpreting the object itself in light of the discoveries occurred after this study.

On another end, addressing the activation of cultural assets as open-ended knowledge systems, the ModeMuseum-bibliotheek, together with the Dries Van Noten Study Center in Antwerp, organised the "Mapping Fashion Heritage Through Patterns" workshop in partnership with EFHA-European Fashion Heritage Association.²² Through this "Pattern-a-thon," students, designers, and researchers examined the calculations and processes involved in transforming bidimensional paper patterns into three-dimensional objects, aiming to uncover and recover heritage patterns. The final goal was to enrich Wikimedia Commons, making these patterns accessible and open for public use while fostering an innovative idea of curation based on phygital activities and inclusivity.

Considerations

As of today, fostering cultural exchange for public museums means leveraging the development of experiential learning approaches highly based on co-curation and co-participation. Those usually reflect an engagement and interactive approach typical of secondary education that does not typically cultivate the dimension of personal enrichment to the same extent as the specialised pedagogy offered by academies and universities.

caveaux. Through a joint partnership with the Zhejiang Sci-Tech University and established workstations in different parts of China, the project has been scaled to codify a larger number of textile archaeology, conservation, and research experimentations along the Silk Road, developing a complete collection of silk textiles, constituting China's textile heritage.

Another research track characterising public museums surely involves the searching for *new ways to curate and communicate*

¹⁸ https://www.palaisgalliera.paris.fr/en/activites-sous-categoriedactivite/visite-atelier

¹⁹ https://www.metmuseum.org/articles/custom-storage-forms-charles-james

²⁰ https://www.chinasilkmuseum.com/index_280.html

²¹ https://www.centraalmuseum.nl/en/exhibitions/utrecht-lokaal-from-form-to-polygon

²² https://www.digitalmeetsculture.net/article/pattern-a-thon-antwerp/

However, we have seen that public museums' orientation towards community participation distinguishes the activities offered today. This attitude enables museums to utilise their tangible and intangible cultural heritage to ignite cultural entrepreneurship at a macro level. An exemplary case of this is the growing network of ModeMuze,²³ under which fashion and costume Dutch and Flemish museums collaborate to permanently present their collections through a portfolio of events disseminated in the local territory and online. The use of digital allows the ecosystem to overcome territorial boundaries to connect an increasing number of fashion and costume collections and present them as a source of inspiration for the fashion audience. Developing technologies, such as linked data, support this macro and interconnected dimension, fostering the creation of comprehensive datasets that enrich the scope of information and enhance the granularity and specificity of the data associated with archival artefacts (Vandi, 2023). Museums like the MoMA are even constructing these data architectures interconnection with museum structures worldwide.24 Thanks to Linked Data, the initial configuration that specific cultural visualises cross-connections within institutions becomes then complementary and open to crossdomain collections, making the collection more discoverable and unlocking knowledge transfer and exchange interculturally.

Academia

In light of what has been described so far, the role of universities is analysed as catalysts of scientific innovation with an innate ability to create relational networks between businesses and cultural institutions. Moreover, focusing on the arts and design disciplines within universities, there are "translational mechanisms to connect and align stakeholders, particularly in the context of academic entrepreneurship where multiple stakeholders with different expertise and interests work together in joint endeavours" (Simeone et al., 2018, p. 434). Academic entrepreneurship is then conceived as "a practice performed with the intention to transfer knowledge between the university and the external environment in order to produce economic and social value both for external actors and for members of the academia, and in which at least a member of academia maintains a primary role" (Cantaragiu, 2012, p. 687).

Dissemination

Despite dissemination activities in Academia being especially associated with scientific publications, universities develop a

portfolio of dissemination activities in the Italian context, feeding into the "Third Mission," a mandate aimed at valorising the activities of research and didactics in the scientific, technological and cultural sectors (Table 3). In the defined context of arts, design and cultural fields, many activities run interrelating academia, cultural institutions and enterprises leveraging on educational and research opportunities. Concerning education, many exhibitions promoted by universities are student-led, and aimed at promoting their work to the entrepreneurial world. This is the case of the "Fashion Release" by New School Parsons Paris collaborating with Fondation Alaïa,25 during which students ran archival research for 2 years, exploring the pieces collected by Azzedine Alaïa in the archive, to finally propose an installation showing their research process, displaying unseen key documents and their case studies exhibited. Witnessing how museums work with universities and other schools to promote creativity and entrepreneurship in the world of fashion, the Central Saint Martins-UAL collaborated with Cristóbal Balenciaga Museum²⁶ on an educational project that enables students at the London-based school to analyse nine pieces selected in the museum's collection, designing a complete outfit after an in-depth archival analysis, which was then evaluated by both institutions. The students' work was assessed mainly on their ability to apply techniques and aesthetics of popular costume to their designs, the methods of adaptation and interpretation used, and the study and implication of the procedures used by Cristóbal Balenciaga in this regard.

Conversely, *academic conferences*, where new information about a particular field is shared among representatives of the discipline, are another channel of dissemination for universities. For instance, academics, researchers, archivists, and other professionals convened at the Fashion Institute of Technology (FIT) in New York for the "Archiving Fashion Conference: Mapping Fashion Collections" to talk about the history, current state, and prospects of fashion and textiles, as well as related materials preserved in archives.

Didactics

Cultural heritage concepts and the material culture characterising archival artefacts have always been integrated within *institutional didactics* of Arts and Design Universities (Table 3). This has allowed the new generations of professionals to learn from the analysis of culture-intensive artefacts and

²³ https://www.modemuze.nl/

²⁴ https://museumsdigitalculture.prattsi.org/build-the-data-and-they-will-come-thinking-digitally-in-momas-archives-17a5c1f2c8fe

²⁵ https://blogs.newschool.edu/parsons-paris/2024/05/15/fashion-release-at-fondation-alaia/

²⁶ https://artsandculture.google.com/exhibit/iAIC3vmJ2vtnLw

²⁷ https://www.fitnyc.edu/academics/academic-divisions/liberal-arts/ art-history/archiving-fashion-conference/index.php

TABLE 3 Summary of culture-intensive activities by academia.

Dissemination • Students-led exhibitions • Academic Conferences	Didactics Institutional didactics Experimental didactics (MOOC)	Research Curatorial Research Scalability Impacts on CCIs
Cultural and Social Sustainability Urban Regeneration Community Co-creation		
Cultural Entrepreneurship Level • Micro (students)		
Meso (local stakeholders)Macro (intercultural impacts)		

practices. The Royal School of Needlework²⁸ spread around the UK is dedicated to preserving the art of embroidery by establishing embroidery studios to teach the craft and offer services for fashion, arts, and royal events. The use of archival materials as a foundational element for academic instruction is exemplified by institutions like Jefferson University and the Fashion Institute of Technology which established hands-on courses for students directly dealing with the study of their textile and clothing archives to drive students into the reinterpretation of their codes through new fashion collections.

On the other end, while academia is starting to experiment with new teaching models and experimental didactics (Bertola et al., 2020), their impact on the fashion industry remains limited. These models, although promising, often remain limited to the academic sphere, failing to bridge the gap to practical, industrywide applications. Despite the increasing availability of openaccess resources, the integration of these innovative teaching methodologies into the fashion sector is still in its nascent stages and requires further development to achieve broader relevance and influence. The EU-funded project "Digimood. Digital Modules of Didactic for Cultural and Creative Industry"29 is a standalone in the field, developing and sharing open access a series of innovative and interdisciplinary educational modules in "Digital Entrepreneurship for Creative Industries" with specific applications to the fashion industry, branding of its companies, narrative strategies and new digital service models.

An interesting and promising channel universities are starting to consider is podcasting aimed at structuring in students a learning system based on reflection and asynchronous thematic deepening (Harris and Park, 2008). With its Podcast series "Alma Lectio", 30 the Alma Mater Studiorum in Bologna is following this trajectory, offering a channel dedicated to *lectio magistralis* held by scientists, scholars and intellectuals that over time were invited by the Bologna University to share their knowledge and contribute to knowledge dissemination.

Research

Research within fashion cultural domains in academia has mainly been focused on curation and representation methodologies highly rooted in historical and socio-cultural domains, considering archives as elitist places detached from the general public (Pecorari, 2019) (Table 3). In light of digitalisation and contemporary issues linked to cultural sustainability, the archive ceases to be a symbol of power and assumes the role of meta-medium (Manovich, 2010; Vacca and Vandi, 2023), a relational and ever-expanding repository encompassing a wide array of resources that includes all the methods for cultural creation, manipulation, and interaction, as well as the multitude of data formats that are available at any given moment (Vandi, 2024). In light of this scenario, curatorial research conducted by universities has shifted its focus toward developing new tools that can augment and democratise archival research, a shift also reinforced by the establishment of dedicated research centres.

One such tool is the "Exhibiting Fashion" platform, developed by the Centre for Fashion Curation at the University of the Arts London.³¹ This growing online archival platform captures and records details of international fashion exhibitions, enabling the investigation and reappraisal of the discipline of fashion exhibition-making. Another valuable tool is the "Fashion Calendar"32 research database developed by FIT from the digitisation of the Ruth Finley "Fashion Calendar" archive that enables users to analyze and explore rich patterns of nearly 200,000 events and recreate narratives belonging to the history of fashion and creative industries. Although academic projects often remain within the academic sphere, their results always involve a broader socio-cultural dimension and are applied to a wider scale through the strategic relationships that academia cultivates with industries and the cultural sector. The project "Exploding Fashion: From 2D to 3D to 3D Animation"³³ integrates university research on pattern-cutting in twentieth-century fashion, developed by Central Saint Martins,

²⁸ https://royal-needlework.org.uk/

²⁹ https://dipartimentodesign.polimi.it/it/research_projects/224

³⁰ https://open.spotify.com/show/3leYuyLdcGfZsEL3q2nKAK?si= c1d41baa0e3943b9

³¹ https://fashionexhibitionmaking.arts.ac.uk/

³² https://fashioncalendar.fitnyc.edu/page/home

³³ https://www.momu.be/en/exhibitions/exploding-fashion

with various technological and creative agencies that provide the necessary technological tools to enable it. Additionally, cultural partners facilitated the dissemination of the project through an exhibition at the MoMu in Antwerp. In this context, research pathways in cultural and material culture studies often have *scalability potential in CCIs* and impact the development of new startups. This is exemplified by startups and small enterprises like Filipari³⁴ or Orange Fiber,³⁵ which reinterpret traditional textile manufacturing processes using waste materials such as marble scraps or orange peels to create sustainable fabrics.

Considerations

Often, despite their intention to become a catalyst for knowledge exchange, universities fail to bridge the knowledge gap between stakeholders due to a lack of practice-oriented approaches, which are often preferred by companies. As a result, knowledge, even when using cultural heritage, remains confined to a micro and meso level. However, it has been shown that knowledge flows are not unidirectional and are not simply transferred to the market but are conveyed in a circular movement from the university to the cultural ecosystem and *vice versa*, facilitated by academic work and collaboration with local stakeholders (Dameri and Demartini, 2020, p. 1887).

To deepen this, as introduced above, practice-oriented approaches offered by universities preferred by companies can include cooperative and exchange education programs and collaborations with real projects that directly engage university students and researchers with the challenges of a highly practiceoriented field. The proposed methodologies and approaches help bridge the gap between theoretical knowledge and practical application, which is often a significant obstacle in purely academic environments. Despite these challenges, the interaction between universities and cultural ecosystems fosters a cyclical flow of knowledge which ensures that academic insights are not only disseminated to the wider community but also enriched and refined through practical feedback from local stakeholders. This dynamic exchange enhances the relevance and impact of academic research, promoting sustainable development of CCIs both culturally and socially, with the goal of retaining knowledge within the local context through partnerships between universities and artisan communities (Brown and Vacca, 2022, p. 592), going on to impact the meso dimension. The cyclical movement of knowledge also underscores the importance of collaborative networks and partnerships between universities, companies and cultural institutions, ensuring that the knowledge generated is continuously evolving and applicable to realworld contexts with potential for macro applicability.

A best practice in the field: the Gianfranco Ferré Research Center

According to the results discussed so far and the framework described as a guiding model for the article, this paper presents the GFRC as a best practice in cultural domains related to fashion and the CCIs in general. Indeed, the GFRC by its nature is not imputable within one of the three models described but it simultaneously integrates the three of them as foundational components. Indeed, on one side, the corporate archive of Gianfranco Ferré represents the company identity of the Gianfranco Ferré company during his professional activity from 1978 to 2007. Despite being formalised as archival patrimony after 2007 by the following Foundation, the archive holds the whole documentation related to Ferré's professional activity. On the other side, the archive is not the core of the GFRC, that was funded in December 2021, after the former Gianfranco Ferré Foundation was donated by the Ferré family to Politecnico di Milano as a way to continue and augment the activities run by the Foundation till then. Consequently, the historical archive became part of the Archival System of Politecnico di Milano with the primary focus to deliver a set of dissemination, educational, and research activities of the new "Gianfranco Ferré Research Center. Digital Innovation for Cultural and Creative Industries." Lastly, it can be regarded as a public cultural institution since it preserves the Gianfranco Ferré legacy and is currently experimenting with and developing new dissemination systems with the integration of digital technologies. Indeed, through its research component, it enables the creation of new content and new models of engagement, thereby generating a positive impact on the CCIs. Through research in the field of digital innovation, the GFRC aims to investigate, develop, and experiment with advanced techniques for the visualization, representation, and use of material artefacts to promote sustainable use of new technologies, which are considered both as tools for the protection of the heritage and as tools for its dissemination and activation.

In light of this scenario, by its own very nature, the GFRC becomes one of the major driver for scientific research within university, cultural institutions, and the fashion industry to shape a dynamic and multi-stakeholder framework built around a fashion archive, ensuring the preservation and continuity of the historical memory associated with the designer. Indeed, the GFRC is based on an interdepartmental setting within Politecnico, involving different disciplinary components of the University: the Department of Design, the Department of Mechanics, the Department of Electronics, Information and Bioengineering, and the Department of Mathematics, being grounded on an interdisciplinary vision that combines heritage with innovation and technology to integrate a deep domain knowledge in design and fashion with ICT, User Experience, and User Interaction skills.

³⁴ https://filipari.com/

³⁵ https://orangefiber.it/it/

TABLE 4 Summary of culture-intensive activities by the gianfranco ferré research center.

Dissemination • Archival Guided Tours • Thematic exhibitions	Didactics POLIMI Institutional didactics Experimental didactics (MOOC)	Research Phygital fruition models Advanced manufacturing processes			
Cultural and Social Sustainability Network Co-creation Heritage Activation through knowledge recovery					
Cultural Entrepreneurship Level • Micro (students) • Meso (local stakeholders and interdisciplinary research hubs) • Macro (impacts on CCIs)					

The GFRC is guided by a model which leverages archival resources for educational, dissemination, and research purposes enabling an overall offer of services, experimentations and scalability impacts emerging from the archive to become an animated one (Schnapp, 2013). The three trajectories outlined in the paper constitute the three major areas of investigation of the centre, at the same time being intersected by different approaches to studying and analysing the archive (Table 4).

The first stage focuses on the **preservation and continuity of memory**. This approach emphasizes the importance of maintaining its value through the conservation, organization, care and digitization processes of its historical materials witnessing Ferré's activity. These activities allow an always-increasing understanding of the archival historical memory and ensure accessibility for future generations, especially supporting the dissemination and educational roles of the archive. In this context, the GFRC is carrying on the former Foundation's activity of digitisation of materials to enrich the database at hand while pursuing its didactic tours of the archive, offering lessons and deepenings on the designer's life and practice to schools and universities.

A second trajectory of developed activities aims to innovate the architecture of the archive in light of new technologies and enhance its content by developing **new models of engagement** and creating new narrative formats. This involves rethinking curatorial approaches according to which archival materials are accessed and used, promoting a democratised and interactive experience. By doing so, the archive becomes a living resource that supports contemporary educational and research activities, testing and experimenting with technologies such as machine learning and AI to restructure and create a new vocabulary of metadata based on the ones inserted over time by the Foundation's employees in the virtual platform.

The third trajectory proposed by the GFRC seeks to generalize the knowledge generated from the archive to produce positive impacts on CCIs. This is achieved through the development of collaborative projects and new research trajectories that extend the reach of the archive beyond its traditional boundaries. The goal is to create a broad range of applications that can benefit the industry, ultimately driving innovation and contributing to the sector's growth. These regard testing and experimenting with technologies aimed at

rematerialise the artefacts, techniques and cultural aspects preserved within the archive by reinterpreting them in light of manufacturing technologies such as 3D printing, laser cut and whole garment to sustain research towards the definition of a sustainable ecosystem of practices for fashion design.

Deepdiving into the model proposed, the GFRC undertakes a comprehensive approach to dissemination activities, strategically broken down into guided tours and thematic exhibitions. The first track consists of guided tours of the archive and the historical foundation and is designed not only to educate students, researchers and amateurs about Ferré's design approach to fashion but also to foster a deeper understanding of the broader historical and cultural contexts that influenced his work. These tours have an even greater impact on citizens when conducted in conjunction with events such as ApritiModa or MuseoCity, cultural networks in which the centre plays an integral role. The second track, thematic exhibitions, provides a dynamic platform for showcasing curated selections from the Ferré archives. These exhibitions are meticulously organized around specific themes that highlight various aspects of Ferré's contributions to fashion design, such as his pioneering use of materials or his architectural approach to garment construction. This was the case of the exhibition held in 2023 in Los Angeles titled "Gianfranco Ferré. Design Principles" focused on showcasing a selection of white shirts paired with illustrations from the archive and "augmented" by the presence of a digital catalogue and a guide that gave access to a set of materials in the archives that could not be included in the set.

For what concerns didactics, while maintaining traditional lectures to high schools and universities at the Center, the GFRC has started an increasing integration within **institutional didactic programs** of the School of Design at Politecnico di Milano. These programs aim to integrate both archival materials studies and learning approaches from Ferré's design activity into the bachelor and master curriculum, encouraging critical thinking in students based on culture-intensive approaches. On the other hand, the GFRC has started to play with **experimental didactics** to broaden accessibility to the archive by searching for engaging ways to democratize fashion heritage through education, offering flexible, self-paced learning opportunities that utilize the Ferré archive to innovate educational offerings.

What mainly distinguishes the GFRC from other cultural institutions is the high vocation towards techno-scientific, humanistic and curatorial research, trying to find new ways to reinterpret the archive and generalise the knowledge to cultureintensive contexts and CCIs in general. The Phygital Fruition Models track explores the integration of physical and digital experiences to enhance the accessibility and engagement with fashion archives. This starts with a necessary redefinition of the archival database organisation and consequent architecture of metadata to allow hyperlinks among data and unveil visualisations and interfaces that may arise unexpected and serendipitous discoveries (Toms, 2000). If this approach is aimed at dematerialising the archive, the research track Manufacturing dealing with Advanced traditional experimentations focuses combining on craftsmanship characterising Ferré's work with modern technology to rematerialise artefacts and recover and update the related manufacturing knowledge. This research offers the possibility to search into sustainable practices, new materials, and automated systems, aiming to revolutionize fashion manufacturing processes with profound impacts on the industry.

Conclusion

Through literature and desk research, the article demonstrated how fashion has the right role in fostering new entrepreneurship paths devoted to cultural and social sustainability particularly when dealing with impacts on the preservation of memory, community activation, and cocreation with stakeholders. This particularly refers to the creation of what is defined as a cultural ecosystem "an environment in which different actors (i.e., public and private organisations, associations, communities, artists, creative people, citizens), interested in producing and consuming arts and culture, interact" (Dameri and Demartini, 2020, p. 1886). As happening for the GFRC, the union among fashion companies and related heritage, public museums and cultural institutions in general, together with the fundamental approach typical of "entrepreneurial" universities (Dameri and Demartini, 2020, p. 1886), can act as a hub to activate and foster relationships and as an engine for leveraging talent that has a strong cultural background rooted in culture-intensive knowledge but with a

distinguished catch towards open challenges dictated by contemporary practices and approaches especially proposed by the digital and sustainable transformation fashion and all the CCIs need to face. This transformation presents diverse research and fruition opportunities for researchers, designers, students, and interdisciplinary professionals in the fields of Fashion Heritage, Fashion Design and Fashion Curation, as well as Human Computer Interactions, Digital Humanities, and various Engineering domains. Given the issues raised and the findings of the research, it is reasonable to argue that fashion archives have the capacity to rethink their structure and reach, evolving into complex assemblages comprising a multitude of meanings interconnected through technologies, practices, and media (Vandi, 2024, p. 177).

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

FV has contributed the "The Role of Fashion Heritage within Cultural Entrepreneurship Initiatives." AV has contributed the Introduction, Methodology with complementary input from FV, Results and Conclusions. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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