# Woven Through Trust and Affect: Four Cases of Fashion Sustainability in Brazil


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**Abstract** This study investigates how fashion practitioners have approached sustainability in Brazil. Through the lens of culture—a recently emerging pillar of sustainability—we look into practices that hint at plural approaches in the dominant western perspectives, especially in terms of their symbolic dimension and value systems. We will briefly present and explore cases of agroforestry, clothing upcycling, alternative leather production, and collaborative spaces and workshops. The notions of 'trust-based relationship' and 'affect' emerge as key elements in the development of more sustainable practices in the field of fashion. This chapter contributes to the sustainability discussion by presenting Brazilian cases from a cultural perspective. It further expands the discussion on decolonizing design and proposes a possible direction for decolonizing fashion. It concludes with reflections on how western and non-western societies can benefit from the addition of these dimensions to the sustainability discourse.

**Keywords** Sustainable fashion practices · Plural fashion sustainability · Cultural sustainability · Brazilian fashion · Fashion design culture · Decolonizing fashion · Case study

## 1 Introduction: (Fashion) Sustainability As We Know It

For over 50 years, researchers and practitioners in the north–west have debated the implications of current practices and the ways in which humankind relates to the Earth. The discussions started emerging in the 1960s as the levels of pollution

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started increasing and in the 1970s with the oil crisis. In 1972, the initiation of global dialogues from the United Nations (UN) reinforced the gradual establishment of the concept of 'sustainable development'. In the 1980s and the 1990s, these discussions reached social and industrial levels. The most frequently used sustainable development terms were introduced by the Brundtland Commission, also known as the World Commission on Environment and Development (WCED), in the UN-commissioned report 'Our Common Future' [48]. The report not only bridged the ecological aspect of sustainable development and the social and economic aspects but also what is generally considered valuable in life. The latest version of the globally agreed idea of sustainability can be found in the UN's 17 Sustainable Development Goals (SGDs). The SDGs [43] are described as 'an urgent call for action by all countries—developed and developing—in a global partnership'.

In the field of fashion academia, the discourse gained a body in the early 2000s (e.g., [10, 18, 47]). Through a critical examination of contextual fashion practices at the beginning of the 2000s, a number of authors offered alternatives to making and producing in fashion. Kate Fletcher, via a series of both single and collectively authored publications, has been a key figure in disseminating the voice of fashion within the sustainability discussion, constantly adding dimensions and perspectives to her seminal 'design journeys' (2008). Since these initial efforts, the discussion has widely expanded within and beyond fashion itself. Today, fashion and sustainability is undoubtedly one of the most prolific directions in the field of fashion, with contributions from a diversity of disciplines and geographies. However, a clear dominance of western perspectives prevails [39], creating a considerable gap in approaches, especially in regard to value systems and structures. This predominant western discourse is anchored in a centuries-long tradition guided by mechanist, dualist and objectivist values, deemed inappropriate for addressing planetary boundaries [41]. As a response to this discourse, this chapter looks into cases from Brazil in order to broaden perspectives, welcoming other consolidated value systems that have long been overshadowed and forgotten.

The Brundtland Commission report (WCED 1987), which established the groundwork of the currently dominant view to sustainability, emphasized the balance of three pillars of sustainable development. These pillars include environmental, social and economic demands for progress. Meanwhile, the notion of culture has recently emerged as the fourth pillar of sustainability (see [3, 40, 42]). Despite the growing number of researchers looking into the culture as a means to achieve sustainability, a wide array of perspectives exist, meaning that there is no single understanding of what culture entails in the development of sustainability practices.

Here, we focus on diversity and eco-cultural resilience as aspects of culture that may support and enable sustainability from the perspective of diverse practitioners in the contemporary fashion system. The research questions that we seek to answer through this study are the following:

– What are the characteristics of sustainable fashion in Brazil?
– How do the characteristics differ from sustainable approaches in western societies?

By answering these questions, the primary aim of this chapter is to emphasize the culture of Brazilian sustainable fashion approaches. Through the lens of culture, we look into practices and models that hint at plural approaches to fashion sustainability in the dominant western discussions. The contribution of this chapter is fourfold. First, it deepens the understanding of the cultural pillar for sustainable development in fashion. Second, it introduces lesser-known yet innovative cases from Brazilian practitioners related to the field of fashion to broader audiences beyond the region. Third, it bridges the cultural perspective from fashion design to fashion sustainability. Finally, the findings contribute to the recently emerged discussion on decolonizing design and suggesting a possible path to also decolonizing fashion.

The structure of this study is as follows. It begins with the theoretical framework on the culture of fashion design. Next, it briefly presents the research methods and the context of the Brazilian fashion ecosystem. Four cases presenting the different characteristics of Brazilian approaches to fashion sustainability are introduced and reviewed through the lens of fashion design culture. Finally, after discussing the key findings from the cases, the chapter concludes with suggestions for future studies.

## 2 Theoretical Framework: Fashion (Design) and Culture[1]

Both together and separately, the notions of fashion and culture have been widely explored. Previous studies from the social psychology of clothing, in particular, have approached the notion of culture through an anthropological lens (e.g., [16, 21, 25]). These studies tend to explore clothing as cultural representations, traditional costumes and social phenomena, rather than associating it with a field of practice with domain-specific knowledge and skills. Due to the limited competence of the authors on the topic as well as the broad context to be covered, this anthropological view of clothing and fashion is not the main focus of this study.

This study aims to explore the practice of Brazilian sustainable fashion by highlighting discussions from the intersection of fashion and design research. Accordingly, the notion of culture is conceptualized as symbolic material constraints that are directly tied to fashion practice and shared among actors in the fashion system, especially fashion practitioners [13]. Fashion design as a profession comprises encultured practices situated within local and global contexts [9]. In this study, fashion practitioners refer to designers and entrepreneurs who reside within the ecosystem of fashion. A previous ethnographic study in Finland, looking into the practices of Finnish fashion designers, has revealed key concepts of the fashion design culture [13], and we used these as a model for this study. These concepts supported constructing two main categories: ‘objectives of designing’ from the meaning dimension and ‘production system’ from the material dimension.

[1] This section was partially adopted from Chun’s research on fashion design thinking (2018).

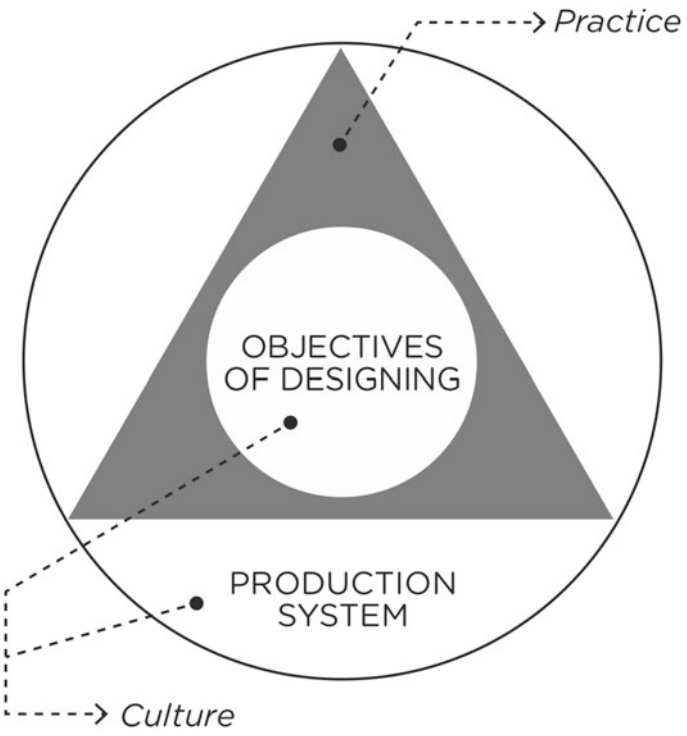


**Fig. 1** Model for visualizing how the internal and external aspects of fashion design culture are situated in the practice (adopted from [13])

These categories are similar to Lawson's [28] internal and external constraints for design but require further understanding of fashion's complexity in terms of its material (clothing) and immaterial (fashion) dimensions (see Fig. 1). This complexity of spectrum allows the fashion system to produce both material and meaning [26, 29] and challenges the dualistic view by enmeshing these two dimensions. Whereas the practice of fashion practitioners may have a direct connection to clothing construction, the production of fashion requires understanding meaning-making elements. In other words, the individual practice of fashion practitioners is intertwined not only with the material production system of clothes but also with the symbolic and social production system of fashion. The following sections further discuss these aspects of the fashion design culture in relation to the meaning and material dimensions.

## *2.1 Meaning Dimension: Objectives of Designing*

Regarding the objectives of designing being the internal aspect of fashion design culture, one point needs to be made: the practitioner is not a machine that works

with an order placed by someone. A fashion practitioner makes their own choices in a situated manner [22] and is deeply affected by contexts. In other words, an action of fashion design takes place within the set of intentions of the situated designer to turn clothes into fashion, as Loscheck (2009) observed. In this respect, despite a clear limitation from the binary approach, Manzini ([30], pp. 33–37) offered a useful distinction to understand two types of design: problem-solving and sense-making. Design as problem-solving is associated with a simple daily issue in an entangled global matter in the physical and biological world. Meanwhile, design as sense-making emerges from the social and cultural world, constructing meanings and conversations for producing certain values. Manzini [30] argued that these two types co-exist. In this work, we go one step further and argue that rather than co-existing, these two types of design are entangled in such a way that a clear distinction is rare. Meanwhile, the shared culture of fashion practitioners is associated with the idea of fashion into which they intend to transform. Thus, keeping in mind the entangled and non-dualistic view of these two dimensions, it is more relevant to consider the culture of fashion design as sense-making, as clothes can only become fashion through social dialogues and experiences [29].

## *2.2 Material Dimension: Production System*

Related to the external aspect of fashion design culture, we need to consider a spectrum of factors that surround the practice of individual designers in the material dimension. Different from the objectives of design that rely on the social and symbolic production of fashion, the production system is relevant for the materiality of clothes, as fashion practitioners need to join social communication in order to turn clothes into fashion [29]. However, the production of clothes is as important as the meaning production of fashion, because this aspect situates the practice of individual fashion practitioners in the physical world. In order for them to produce many pieces of clothes and other items as a collection,and for the clothes to be worn and finally become the fashion, a series of conscious efforts are required due to the complexity of the clothing industry. This complexity in the system of fashion, supported by the production and consumption of clothes, was described by Aspers and Skov [2] using the notion of ‘encounters’ (p. 803):

> The concept of encounters shifts focus away from individuals and entities and allows us to zoom in on interaction, negotiation and mediation between people and products, buyers and vendors, but also between different professions and different nationalities, and ultimately also between economy and aesthetics.

This view helps us to understand the entanglement of the practice of individual fashion practitioners with their shared culture. This study explored these encounters from the practitioners’ perspective. However, the enmeshing of relationships is especially visible through their practices.

### 2.3 Key Concepts of the Fashion Design Culture

In addition to these categories of the fashion design culture, the corresponding concepts were identified as more detailed features [13]. Table 1 summarizes these concepts under two categories.

Despite its representation of western societies, these categories and concepts shed light on the culture of fashion design as a way to explore sustainable fashion practice. The two categories and corresponding concepts are equally important for understanding the shared culture of fashion practitioners in terms of both the symbolic and social dimension and the material dimension. The concepts of usefulness, everyday life, wearer, practitioner him/herself, and temporality are all vital for understanding the social construction of fashion through constant dialogues between individual fashion practitioners and wearers. From the perspective of fashion practitioners, especially designers, a piece of clothing needs to be both wearable and attractive for potential wearers. However, due to experience and wearing factors, pieces of clothing are not stable objects [45]. As the makers in creative practices, fashion practitioners also enjoy the development of clothes that can become a space for experimentations, experiences and meaning construction. In the meantime, the concepts related to the production system of clothes reflect the complexity in the physical and material world. The intensified biannual structure for showcasing fashion collections, also known as fashion week, triggers rapid production and cooperation among fashion practitioners with other actors on the global and local scale. At the same time, diversified feedback loops support the development of new collections. How can this model of the fashion design culture thus be used to examine fashion and sustainability in the specific context of Brazil? In order to answer this question, the following section presents the methods used for data collection and interpretation, as well as an overview of the Brazilian fashion ecosystem and its features.

## 3 Research Methods

Using a purposive sampling approach [19], we chose four cases that show the potential of the Brazilian approach to fashion sustainability to explore deeper. The sampling was conducted through the mobile application WhatsApp due to its wide use in Brazil. A group chat, called Grupo Transparência (‘Transparency Group’ in English), with a shared interest in the topic of sustainable fashion was used (see ‘transparencia.me’). Different actors in the Brazilian fashion industry have been actively engaged in discussions on the topic and some of the cases for this study were invited through the application. The selected cases are FarFarm, C(+)mas, beLEAF and Ateliê Vivo. Each case will be presented in detail later.

For a broader contextual understanding of the Brazilian fashion ecosystem, we conducted semi-structured interviews with local experts in Brazil. In addition, one of the authors in this study had experiential knowledge as a native practitioner and

**Table 1** Summary of concepts for fashion design culture (adopted from [13])

| Category/Dimension | Concept | Description | Keywords |
|---|---|---|---|
| Objectives of designing/Meaning | Usefulness | Creating something wearable, functional and comfortable for potential wearers | Functional, comfortable, practical |
| | Everyday life | Making sense for potential uses in daily lives while representing wearers' personality | Experiences, personal, daily life |
| | Wearer | Dressing the body of wearers who reinterpret the design based on their needs and experiences | Interpretation, needs, values |
| | Practitioner him/herself | Deriving enjoyment and self-satisfaction from the process of designing, which conveys certain values | Process-oriented, pleasure, proposal |
| | Temporality | Paying attention to time changes constantly while speculating on the future | Topical issues, trend, speculation |
| Production system/Material | Coexistence of globalism and localism | Engaging on both global and local scales while producing fashion and textiles | Selling and sourcing globally, producing locally, local techniques and crafts |
| | Multiplicity of actors | Cooperating with various actors in the process of producing fashion and textiles | Building trust, mutual respect, cooperation |
| | Speed | Maintaining the choreographed production of fashion and textiles within a limited timeframe | Vicious rhythm, efficient planning, prioritizing |
| | Seasonality | Creating a new meaning or revisiting previous works while reflecting seasonal changes | Seasons in nature, fashion calendar, newness |
| | Plural feedback | Collecting direct and/or indirect responses from wearers and clients for sensing future production directions | Multi-channelled, indirect and direct feedback, satisfaction |

this provided useful points to reflect upon. Until recently, for more than a decade, Julia Valle-Noronha worked in the Brazilian fashion industry as a fashion design practitioner on different scales; from a fast-fashion retailer to a large ready-to-wear brand, an haute couture house and her own fashion label. Her reflections on the experiences were supported by desktop research and literature on Brazilian fashion and were complemented by the interviews.

This study followed the main case study principle [49]. Multiple sources of evidence were gathered to characterize the Brazilian approaches to fashion sustainability in four distinctive cases. The collected data include semi-structured interviews with the founder or owner of each case via the video communication application Zoom, as well as secondary sources such as magazine articles, official websites and video interviews. The interviews were conducted mostly in English because one author was not a native Portuguese speaker. However, the interview participants were able to clarify their intentions in Portuguese when describing complex processes and specific terms. The fact that one author was not a native Brazilian or a Portuguese speaker allowed this study to employ triangulation of the authors for increasing reliability [37]. The findings that emerged from the collected data were reviewed constantly by two authors while interpreting. The authors discussed any possible bias and misinterpretations to present balanced perspectives of the findings.

## 4 Context: Fashion and Sustainability in Brazil

One obvious, distinctively unique feature of Brazil also reflected in the nation's fashion is the Amazon rainforest, a unique ecosystem, currently under threat, abundant in biodiversity and indigenous knowledge and the practices related to these [27]. This diversity is also perceived in its demographics. The Brazilian population is largely miscegenated, with racial heritage from Europe (including Portugal, Spain, Italy, Germany, Netherlands, Poland), Asia (especially Japan and Korea), the Middle East (especially Lebanon and Syria), and indigenous people, at present, are a minority in their original land [24]. This mixture of different races being involved in the local fashion ecosystem is another specific feature of the country (see [34]). Brazil is a land of disparities, especially social disparity, with massive economic inequality. The carnival and football seasons have huge impacts on Brazilian society, which embraces the production and consumption of fashion.

Before entering the discussion on fashion and sustainability in Brazil, it is important to introduce how 'fashion'—as a western conceptualization of 'what people wear' ([5], 3)—has been discussed across the country. Historically speaking, the adoption of this western conception of fashion in Brazil started in the 1920s, when the local textile industry sought to level itself with North American and European industries [35]. But it was not until the 1950s that the discourse gained a body in society, especially in the economically prosperous Central South, through the dissemination of lifestyle magazines that portrayed western styles produced in Brazil as a frequent disconnection between figure and context [46]. Together with the growth

of this discourse, the integration of indigenous knowledge and practices lost space to a stronger presence of 'prêt-a-porter' clothing, especially after the 1990s when the common practice of made-to-measure was replaced by more affordable mass-manufactured clothes. Aligned with this, it was in the mid-1980s and 1990s that high fashion achieved projection [11], through the activities of, for example, the Grupo Mineiro de Moda in the 1980s [12] and Morumbi Fashion in the 1990s, later establishing itself as São Paulo Fashion Week.

After having lost much of its textile industry to the growth of the same industry in Asia, the Brazilian clothing and textile industry now holds fifth place in the world in terms of volume [7] and currently concentrates on clothing manufacturing. Recently, a number of Brazilian fashion brands have gained global recognition or/and have reached the international market, such as Osklen, Havaianas, Melissa. However, the industry is still rather dedicated to the internal market, with exports being as low as 0.05% [44]. The large Brazilian population (roughly 211 million in 2019) allows self-sufficiency without the need for external markets. Some of the difficulties in internationalizing Brazilian fashion are due to the extremely high taxes that fall upon produced goods as well as the lack of a clear standardized measurement system, which directly reflects the plurality of the bodies of the nation [33].

Until very recently, the high fashion industry and the events related to it mimicked western traditions through seasonal fashion weeks and showrooms, trends and values, with few representatives of what could be called essentially Brazilian fashion. For example, although organizing fashion weeks as Autumn/Winter and Spring/Summer seasons could somehow express the climate of the southern regions of the country (where most economic growth also resides), this does not express the climate of the northern regions, where seasons may be more related to water precipitation and tides than temperatures. Some contemporary examples that have essentially worked and valued Brazilian culture throughout the years in their designs are Auá, Ronaldo Fraga, Rosa Chá, Helen Rödel and Flávia Aranha. More recently, however, with the growth of sustainability and post-colonialist discourses, brands that evoke local practices, knowledge and values have grown in number and acknowledgement, playing an active part in the current conceptualization of fashion in Brazil. Events such as the late Prêmio Rio Moda Hype (for young designers) and the more recent Brazil Eco Fashion Week (exclusively showcasing sustainability brands) have helped in this shift.

Fashion and sustainability in the twenty-first century Brazil is a recent phenomenon. In academic environments, the discussion has spread quickly through the much consolidated and acknowledged Colóquio de Moda, currently in its 15th edition, with hundreds of papers published on the topic. The newly emerging Rio Ethical Fashion [38], with its content freely available online, has stimulated discussions on fashion and ecology. In addition to this, the work of Lilyan Berlim [8] has been seminal in the country and helped build a discourse from the Brazilian perspective, as discourses have previously been tuned to western aspects through the works of, e.g., Fletcher [18] and Black [10]. As for the commercial dimension, despite the breadth and depth of efforts to develop fashion for sustainability in the country, its reach is limited to a narrow number of individuals financially able to engage

in its consumption and wear practices. However, as the number of practitioners and researchers in the field grow, dissemination and cost become more efficient, allowing a wider reach.

## 5 Four Cases of Brazilian Sustainable Fashion

From this context of Brazilian fashion, in this section, we present four cases that characterize certain aspects of Brazilian approaches to sustainable fashion. The cases represent four different approaches, namely agroforestry (FarFarm), clothing upcycling (C(+)mas), alternative leather production (beLEAF), and collaborative spaces (Ateliê Vivo).

### *5.1 FarFarm: Agroforestry for the Fashion Industry*

> The SDGs [chosen for the project] are 100% on the environmental side, but when you get to the Amazon it is impossible to ignore the people, the culture (B Bina 2020, interview, 19 May)

FarFarm [17] emerged from its founder Beto Bina's desire to foster positive development in his motherland, Brazil, after a successful career abroad, aligning with the SDGs 13, 14, and 15 (Climate Action, Life under Water, and Life on Land). Inspired by his father's work with indigenous communities in the Amazon, he decided to bring agroforestry to the region by following syntrophic foundations [20]. Such foundations follow ancient knowledge, taking into consideration heritage, rituals, self-knowledge and the development of the local community to regenerate the land rather than deplete it. Though seemingly unlikely, cotton was Bina's fibre of choice after becoming acquainted with the cotton fibres Rim de Boi (*Gossypium barbadense brasiliense*) and Mocó (*Gossypium hirsutum latifolium*), as well as the successful Pima cotton plantations in the Peruvian Amazon. The chosen area for beginning the project was the Santa Bárbara community, in Pará state, Brazil, an area already familiar to Bina, where the Amazonian biome thrives.

Bina describes the community as being formed by extremely knowledgeable and sophisticated people, who hold an immense understanding of the forest—much of which is still unfamiliar to researchers in the field. He adds that 'relationship' is central to their being among themselves and with the land, with strong importance given to emotions and bonds as opposed to financial compensations. For example, the well-consolidated Maslow hierarchy of needs [31] is invalid among these communities, as the emotional dimension (described by Maslow as Love and Belonging) sits at the bottom of the pyramid. However, the contemporary western regime has impeded most male indigenous people from carrying out their traditional activities, as they became illegal under the Brazilian Republic. These activities included hunting in the

**Fig. 2** FarFarm community in Pará on regenerated land. *Image Credit* renature.co / Cecilia Rechden

forest and rivers or performing indigenous rituals, which directly connected them to the land. Due to this, women have become central to the development of the project, and they have taken on core roles (Fig. 2).

The work with cotton, although small, has helped develop a connection between the community and the land and provided a financial means for people to improve their livelihoods. Community members see in this both the recognition of their knowledge and an opportunity to put it into practice, sustaining their indigenous culture. For them, the connection to the fashion and textile industry hardly affects how they perceive their work, but for the fashion industry, this is a unique opportunity to start to reverse the damage that monoculture and its consequences have caused to the environment.

Despite its small scale, FarFarm has already established some important collaboration projects with large-scale enterprises, such as Renner (the largest national fast-fashion company) and Nespresso (the international coffee processing company). In addition, the project has recently expanded beyond the Amazonian region and has now settled in the Cerrado biome in Minas Gerais, for example, and as a small organic cotton plantation in the São Paulo urban environment.

## *5.2 C(+)mas: Upcycling Specialist*

Sustainability in Brazil emerges from the people ([14], interview, 21 April).

Founded by Agustina Comas (Brazil/Uruguay) in 2008 and consolidated as a brand in 2015, C(+)mas [14] has been at the forefront of upcycling in Brazil. Comas' interest in the process started during her bachelor studies when she reflected on

**Fig. 3** Example of upcycled clothing on sale at C(+)mas online shop. *Image credit* C(+)mas

how discarded clothing could be used as 'raw material' for new clothes—a process she calls 'rescue'. Working with large-scale shirting industries in Brazil after her graduation has been both shocking and motivating to the young designer: the number of discarded shirts due to poor fit or small defects was enormous. At the same time, ready-made pieces offered a great opportunity to be redesigned into other garments. By becoming closely acquainted with factory owners, she was able to buy the discarded pieces at a low price and rework them into new, exciting pieces.

Comas notes that much in Brazil, the largest country in South America, reflects the dimensions of the country: 'it is common to find brands you have never heard of, and when you get to know about them you realize there are over 300 stores spread across the country' ([14], interview, 21 April). In 2018, the country produced 5.7 billion items of clothing, with an export rate of 0.05% [44]. To her, these numbers confirm the need to act on unsold, unused garments and circulate them back into the market and use. Her response to these worrying numbers was the development of a systematized method for upcycling clothes, especially shirt (Fig. 3), in collaboration with Ana Inés, a friend based in Uruguay, via Skype. Over the years, their explorations have expanded and the brand C(+)mas now carries a large repertoire of upcycling pieces added to fabrics made of textile salvages, such as Oricla (see Fig. 4).

According to Comas, sustainability is in its early stage in Brazil, but great individual efforts have started to gain attention and recognition, such as the Brazil Eco Fashion Week, the Grupo Transparência and the local Fashion Revolution. However, she sees that much of the initiatives focus on the social dimension of sustainability or are very experimental and difficult to scale. For the future of upcycling in fashion, she imagines a parallel system working together with the fashion industry, making use of discarded textiles in a symbiotic relationship.

**Fig. 4** Oricla textile developed by C(+)mas. *Image credit* C(+)mas

### *5.3 beLEAF: Plant-based Textile Innovation*

> Our work today is the result of a combination of almost magical coincidences (P Amaury 2020, interview, 19 May)

beLEAF is the trademark of a material innovation project developed by Paulo Amaury and Eduardo Filgueiras under the Nova Kaeru company (Nova [36], a pioneer in sustainable leather alternatives based in the town of Bemposta in Brazil. The idea for the company started when Filgueiras ran a frog farm for the food industry and was frustrated by a large amount of skin being discarded. However, frog skins were too small to use. After years of research to develop organic tanning and attempts with different food industry by-products, he was challenged by a pirarucu fish specialist (*Arapaima Gigas*) in the Amazon to tan the species. The giant fish skin leather became a significant cause of social and environmental sustainability in the Brazilian Amazon.[2] More recently, looking at the plants in the backyard of Nova Kaeru's factory, the duo decided to take on a new challenge: tanning plants.

Thus, beLEAF development [6] targeted yet another giant species, this time the *Alocasia Macrorrhizos* plant, native to Asia, but which also thrives in South American ground (nicknamed elephant's ear). This development is set to change how humankind relates to leather-like surfaces. With its 120 cm long and 100 cm wide

[2] Pirarucu is a fish native to the Amazon Rivers and one of the largest freshwater fish in the world, weighing up to 200 kg and measuring over 2 m in adulthood. More about Nova Kaeru's work on pirarucu as a sustainable approach to leather can be read in D'Itria and Valle-Noronha's [15] case study.

**Fig. 5** Application of treated plant Elephant ear (*Alocasia Macrorrhizos*) in a bag by designer João Maraschin. *Image Credits* João Maraschin

leaves, the plant allows enough surfaces for the production of both accessories and clothing and requires little resources for growth (Fig. 5). The project was officially launched after 5 years in 2020 and was carried out by the company's technicians and staff. The unique network created through supplying pirarucu leather to key fashion companies in the world offered them a great testbed and high-quality feedback from the early stages of development.

Amaury assigns much of the success of their developments to a feeling of trust among the collaborators and to Filgueiras's true love and passion for sustainable material innovation. To the local community, the company has brought training and job opportunities. Bemposta is a small town in the state of Rio de Janeiro and has a high unemployment rate. Its efforts focus on working with and providing jobs for the local population, with many individuals working on the same project with a sense of shared ownership. They do not see the lack of financial backing from research institutes or governmental bodies—frequent in material development projects in western countries—as an issue; they see it as a quality that grants them the independence to develop projects at their own pace and according to their own values. For the world, beLEAF has the potential to create a permanent shift in the aesthetic orientation of leather-like products as well as radically reduce environmental impacts as the material requires minimum processing, unlike other current developments in plant-based textiles (e.g., cellulosic fibres). In this way, it is taking a step away from human-centred perspectives towards material innovation, relying on close engagement with vegetable and social entities.

## *5.4 Ateliê Vivo: Collaborative Space for the People*

> We are motivated by the desire of encounters and transformation [...] and believe in the power of the collective (G Cherubini 2020, interview, 7 June)

Ateliê Vivo ('Living Studio' in English) started in 2015 as a space to rethink and motivate new forms of making, experiencing, and consuming fashion. It was initiated by multidisciplinary artist–researcher Karla Girotto and had its first home in Casa do Povo—a cultural centre in the city of São Paulo, in Brazil (Ateliê [4]. Currently, the project is led by a collective formed by Andrea Guerra, Carolina Cherubini, Fábio Lima Malheiros, Flávia Lobo de Felicio, and Gabriela Cherubini, as well as a number of collaborators and has recently moved to a new space in the city. In addition to working on the same project, the collective shares a background in the fashion and creative industries and restlessness to promote change. The space houses a public pattern-cutting library and a lab for fashion and textile practices, cross-disciplinary study and research groups in aesthetics (Fig. 6). Through the practices of making and reflecting, Ateliê Vivo seeks to explore the symbolic dimension of making through a constant state of sharing knowledge. Participants are particularly interested in raising awareness of the importance of time in developing relationships with clothing and fashion. They also emphasize how making together—when different bodies engage in performing similar tasks in the same physical space in silence—creates a special opportunity for deep reflection .

**Fig. 6** Ateliê Vivo's physical space at Casa do Povo. Sewing machines, pattern cutting library and cutting tables. *Photo* Mariane Lima

For the participants, coming to the workshop is more than merely a means to make new clothes or learn a new skill. Social interaction is just as important for the exchange of ideas, personal growth and increasing one's knowledge of the self. The participants and workshop facilitators (both internal and external) become essential partners in consolidating the roles of the space. To the fast-paced, consumption-driven city of São Paulo, the space promotes resistance as it invites slow making, and material and knowledge sharing (Fig. 7).

For the first 2 years, the space was funded by public initiatives and held open cutting and introductory sewing workshops every first Saturday of the month, where volunteers guided the participants. As the project evolved and the demand for extra workshop hours grew, classes began charging a fee, though the library remains open to

**Fig. 7** Facilitator and participants in a hand-stitching dressmaking workshop. *Image Credits* Ateliê Vivo (Instagram)

**Table 2** Summary of the relationship between fashion design culture and cases of Brazilian sustainable fashion

| Fashion design culture | | Cases of Brazilian sustainable fashion | | | |
|---|---|---|---|---|---|
| Category/dimension | Concept | FarFarm | C(+)mas | beLEAF | Ateliê Vivo |
| Objectives of designing/Meaning | Usefulness | | x | x | x |
| | Everyday life | | x | | x |
| | Wearer | | x | x | x |
| | Practitioner him/herself | x | x | x | x |
| | Temporality | x | x | x | x |
| Production system/Material | Coexistence of globalism and localism | | x | x | |
| | Multiplicity of actors | x | x | x | x |
| | Speed | | x | | x |
| | Seasonality | x | | x | |
| | Plural feedback | x | x | x | x |

the public and the introductory workshops continue. A number of fully-funded positions are also available for those unable to cover the costs. The instructors promote the sharing of materials (such as paper or fabric) within the classes. In addition to the courses offered at Ateliê Vivo, members also facilitate workshops in other institutions, raising funds to sustain the project. In the first semester of 2020, the project's business model was reviewed. Despite the financial struggle, the members find their 'everyday, love and life' (G Cherubini 2020, interview, 7 June) in the space and are truly motivated to continue affecting how people and clothes relate.

## 6 Discussion and Conclusion

In this study, we asked what are the characteristics of sustainable fashion in Brazil, and how these characteristics are different from the approaches in western societies. The questions are addressed by the following Table 2, on the basis of the individual description of the cases. The table summarizes the analysis of the cases of Brazilian sustainable fashion via diverse concepts introduced as the features of fashion design culture.

Overall, an added emphasis on the notions of 'affect'[3] and 'relationship' can be related to different concepts. Regarding the notion of affect, through the concepts

[3] In this work, affect is understood as 'an ability to affect and be affected' ([32], p. xvi) and includes both emotional and non-emotional changes in a body's ability to relate to other bodies (c.f., [45]).

of 'practitioner him/herself' and 'temporality', the ways in which Brazilian fashion practitioners intend to conduct their sustainable practices while fully embracing their personal emotions and emphasizing topical issues of society to which they are emotionally attached are clear. In relation to the concepts of 'multiplicity of actors' and 'plural feedback', we found that the Brazilian fashion practitioners had a relationship-centred approach. They heavily rely on local actors and resources and the community-driven bottom-up ecosystem, rather than on centralized support from governmental or regional funds. This encourages them to be innovative and to continually revisit their resources. Overall, it can be argued that Brazilian fashion practitioners demonstrate their particular culture for actualizing fashion sustainability through their affective and relationship-centred approaches. Our findings illustrate distinct differences from the western approaches to fashion sustainability. Whereas western approaches are heavily motivated by official bodies, such as political and economic organizations and units, the cases from Brazil show approaches centred on people and practices, starting from smaller scale actions and reaching wider audiences through time. Brazilian indigenous philosopher, Ailton Krenak, conceptualizes such efforts as those of '[…] "collective people", cells able to transmit through time their visions about the world' ([27], p. 12).

However, the purpose of this study was not to segregate different approaches. In order to address complex issues on sustainability, conjoined efforts are needed that complement each other. The findings from the cases invite further reflections to seek their possible applications in other contexts. In sum, this study looked into the ways in which fashion design practitioners have approached sustainability in Brazil. Through the lens of culture, we reviewed practices and models that both potentially advance and challenge the traditional western perspectives to fashion design. More specifically, we explored the cultural pillar of sustainability [23, 40], to view where its symbolic and material dimensions situate the local fashion practitioners.

Emerging from the four cases, the notions of affect and relationship and how these may support sustainability practices became the focus of this study. These findings need to be further studied to make a meaningful impact on the mainstream, western-centric, academic discourses on fashion sustainability. Related to this point, a clear shortcoming of this study is that it employed a European perspective to culture while exploring Brazilian cases of sustainable fashion (e.g., [30]). Thus, more systematic and in-depth reviews of knowledge that speak to the notion of culture in South America, beyond Brazil, are required. The recent development of the discussion on 'decolonizing design' can provide useful guidance for navigating the underexplored indigenous knowledge on fashion design and culture (see Abdulla et al. [1]). This chapter introduces four cases of Brazilian sustainable fashion, mostly in the Central South region, and depicts only a piece of a comprehensive and complex puzzle. The richness of Brazil as a country and a culture requires further studies on fashion sustainability by not only the local academic community but also the global community.

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In the cases described here, however, affect is tightly connected to the emotional dimension of engagements.

The open-endedness and limitation of this study are due to the emerging stage of the discussions on the pluralities of sustainable development. Instead of isolating the world, the future of sustainable development should fully acknowledge and embrace different approaches. Accordingly, we suggest that both western and non-western societies become inspired by the cases from Brazil and that Brazilian fashion practitioners, with their innovative approaches, become more active in the global conversations on fashion sustainability.

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## Appendix: List of Interviewees

- FarmFarm—Beto Bina (founder/owner)
- C(+)mas—Agustina Comas (founder/owner)
- beLEAF—Paulo Amaury (co-founder/owner)
- Ateliê Vivo—Gabriela Cherubini, Flávia Lobo, and Andrea Guerra (co-founders).

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