

Material narratives and cultural continuity in upcycled textile bag design: a postmodern interpretation of traditional Kutnu fabric

Abstract

The growing demand for sustainable production has encouraged designers to reinterpret traditional textile materials through contemporary design approaches. Although numerous studies have explored textile recycling and upcycling, limited attention has been paid to the intersection of postmodern design theory, cultural heritage, and material narratives within sustainable textile design. This study investigates how traditional Kutnu fabric, a significant element of Gaziantep's textile heritage, can be reinterpreted through postmodern and upcycling approaches to produce contemporary textile bags with both cultural and environmental value.

The research adopted a practice-based design methodology. Defectively manufactured Kutnu fabrics (pre-consumer textile waste) were combined with post-consumer textile materials, including denim, knitted, and woven fabrics, to develop eleven bags and one interior organizer (twelve prototypes in total). Design decisions were guided by postmodern concepts such as collage, hybridity, fragmentation, and reinterpretation, while upcycling principles emphasized material recovery and value creation. Each prototype was subsequently examined through a reflective design analysis conducted by the two designer-researchers against five practice-based criteria, rather than through independent expert or user evaluation. To enhance durability, discarded nonwoven felts were integrated into the structures, and an organizer system was designed to improve functionality.

The findings demonstrate that combining traditional Kutnu fabric with reclaimed textile materials generates products that simultaneously preserve cultural identity, extend material life cycles, and create new aesthetic narratives. Rather than functioning merely as recycled products, the bags serve as material-based storytelling objects, where memory, sustainability, and contemporary design coexist.

The study contributes to sustainable textile design literature by proposing a design framework that integrates postmodern artistic theory with cultural heritage preservation through upcycling practices. Furthermore, it offers an alternative model for transforming textile waste into high-value design products while strengthening cultural continuity.

Keywords: Kutnu fabric, postmodernism, upcycling, sustainable textile design, material narratives, cultural heritage

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Züleyha Değirmenci, Sila Pürsünlü

Textile Engineering Department, Gaziantep University, Turkey

Correspondence: Züleyha Değirmenci, Textile Engineering Department, Gaziantep University, Turkey

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Introduction

Sustainability has become one of the most influential paradigms shaping contemporary textile and fashion design. Beyond reducing environmental impacts, sustainable design increasingly emphasizes extending material life cycles, preserving cultural heritage, and generating new meanings through creative reuse. Within this context, upcycling has emerged not only as an environmental strategy but also as a design methodology capable of transforming discarded materials into products with enhanced cultural, aesthetic, and functional value. Simultaneously, postmodern design theory has challenged conventional understandings of originality by legitimizing fragmentation, hybridity, appropriation, and reinterpretation as creative practices. The convergence of these two perspectives creates new opportunities for reimagining traditional textile materials within contemporary design.

Recent studies highlight that circular economy principles encourage designers to shift from linear production systems toward regenerative models based on reuse, repair, remanufacturing, and upcycling.^{1,2} Among these strategies, upcycling differs fundamentally from conventional recycling because it preserves or even increases

the material, cultural, and aesthetic value of discarded products rather than reducing them to raw materials.³ This perspective has transformed textile waste into an active design resource capable of generating innovative products with new symbolic meanings.

From an artistic perspective, these developments coincide with the evolution of postmodern design theory, which rejects modernism's notions of originality, purity, and stylistic hierarchy. Instead, postmodernism legitimizes hybridity, fragmentation, bricolage, appropriation, and reinterpretation as legitimate creative strategies.⁴ These principles allow materials originating from different temporal, cultural, and functional contexts to coexist within a single design language. Consequently, textile waste can be interpreted not merely as discarded material but as a bearer of memory and cultural narratives capable of constructing new visual and conceptual meanings.

Postmodernism, material narratives and upcycling in contemporary textile design

The emergence of postmodernism fundamentally transformed the relationship between art, design, and materiality by challenging the modernist ideals of originality, functional purity, and stylistic

uniformity. Rather than seeking universal aesthetic principles, postmodern design embraces plurality, hybridity, irony, fragmentation, and reinterpretation, allowing objects from different historical, cultural, and material contexts to coexist within a single design language.⁴ In textile and fashion design, this theoretical shift has enabled discarded materials, vernacular crafts, and everyday objects to become legitimate components of contemporary creative practice.

Materials are therefore no longer understood merely as physical resources but as carriers of memory, identity, and cultural knowledge. From the perspective of material culture theory, objects preserve traces of the social relationships through which they have circulated, enabling designers to reconstruct narratives through material transformation.⁵ Likewise, Ingold⁶ argues that materials should not be regarded as passive substances manipulated by designers; instead, they actively participate in the creative process through their intrinsic properties, histories, and interactions with makers. Consequently, the design process becomes a dialogue between designer and material rather than a one-sided act of production.

Within this conceptual framework, upcycling extends beyond environmental responsibility to become a cultural and artistic strategy. Unlike conventional recycling, which frequently destroys the original characteristics of a material during reprocessing, upcycling preserves existing material qualities while generating products with greater functional, symbolic, and aesthetic value.³ This transformation corresponds closely with postmodern concepts such as bricolage, collage, appropriation, and deconstruction, where heterogeneous elements are reorganized to construct alternative meanings.

Recent studies indicate that sustainable textile design increasingly combines circular economy principles with cultural heritage preservation.^{7,8} Rather than replacing traditional crafts with industrial alternatives, contemporary designers reinterpret local textile traditions through innovative design methodologies that connect historical knowledge with present-day sustainability challenges. Such approaches demonstrate that traditional textiles can contribute not only to cultural preservation but also to the development of environmentally responsible design systems. More recent practice-based studies reinforce this trajectory. Bigolin et al.⁹ propose material inventories and garment ontologies as tools for advancing upcycling methods within fashion practice, while Pareek and Ojha¹⁰ demonstrate that upcycling can be integrated into indigenous textile weaving crafts, simultaneously preserving cultural heritage and encouraging ecological practices. Similarly, Arivanantham and Radhakrishnan¹¹ show that traditional embroidery techniques can be systematically combined with pre-consumer textile waste to support both cultural preservation and sustainable fashion production, a combination of concerns closely aligned with the present study's treatment of Kutnu fabric.

Traditional woven fabrics occupy a distinctive position within this discussion because they embody both tangible craftsmanship and intangible cultural heritage. Their reinterpretation through postmodern design strategies enables cultural continuity without merely reproducing historical forms. Instead, historical textiles become active participants in new design narratives, where previous functions, visible imperfections, and material memories contribute to the aesthetic identity of the final object. This perspective resonates with contemporary theories of craft, which regard making as a process of knowledge production rather than simple object fabrication.¹²

Accordingly, the combination of Kutnu fabric, post-consumer textiles, and discarded industrial materials can be interpreted as more than an exercise in sustainable production. It represents a material-

based narrative in which regional identity, collective memory, craftsmanship, and environmental consciousness intersect through contemporary textile design. The resulting products therefore function simultaneously as cultural artifacts, sustainable design solutions, and artistic expressions grounded in postmodern thinking.

Traditional textiles as material narratives: reinterpreting Kutnu fabric

Traditional textiles constitute more than functional materials; they embody the collective memory, craftsmanship, aesthetic values, and cultural identities of the societies in which they are produced. In recent decades, heritage studies have increasingly emphasized that safeguarding traditional crafts should not be limited to museum conservation but should also include their reinterpretation through contemporary design practices. Such reinterpretations enable traditional materials to remain socially and economically relevant while ensuring the continuity of intangible cultural heritage.

Within this perspective, Kutnu fabric represents one of the most distinctive traditional woven textiles of Anatolia. Produced through the combination of silk warp and cotton weft yarns, Kutnu has historically been associated with ceremonial garments, palace clothing, and regional identity in Gaziantep. Beyond its technical characteristics, the fabric reflects centuries of accumulated weaving knowledge, local craftsmanship, and cultural symbolism. Consequently, Kutnu should be understood not merely as a textile material but also as a cultural medium through which historical narratives and regional identities are transmitted across generations.

Recent heritage-oriented design research suggests that traditional textiles acquire renewed relevance when integrated into contemporary product design rather than being preserved solely as historical artifacts. Such an approach transforms heritage from a static representation of the past into a dynamic design resource capable of responding to present-day environmental, social, and economic challenges. In this context, upcycling provides an effective framework for extending the cultural life cycle of heritage textiles while simultaneously reducing material waste.

From a postmodern perspective, combining Kutnu fabric with discarded contemporary textiles creates a dialogue between different temporalities, production systems, and cultural contexts. The juxtaposition of industrial materials such as denim or knitted fabrics with a historically significant woven textile exemplifies postmodern principles of hybridity, bricolage, and material reinterpretation. Rather than concealing differences between materials, the design process intentionally preserves their contrasting textures, histories, and previous functions, allowing each component to contribute to the overall narrative of the final product.

Accordingly, the present study interprets Kutnu fabric not simply as a traditional textile requiring preservation but as an active design material capable of generating new cultural meanings through sustainable contemporary design. This perspective extends existing discussions on textile heritage by positioning material reuse as a mechanism for both environmental sustainability and cultural continuity.

Research gap and the purpose of study

Despite the growing body of research on sustainable textile design, several important gaps remain in the existing literature. Previous studies have primarily investigated upcycling from environmental, technical, or fashion-oriented perspectives, emphasizing waste reduction, product redesign, and circular production systems.^{7,8}

Meanwhile, research concerning traditional textiles has generally focused on historical development, weaving techniques, conservation, and cultural documentation rather than their reinterpretation through contemporary design theories. Similarly, studies addressing Kutnu fabric have predominantly examined its historical significance, production characteristics, and adaptation into modern textile products, while limited attention has been given to its conceptual role as a medium for cultural storytelling within sustainable design practices. Even recent practice-based studies that combine heritage craft with upcycling^{10,11} tend to foreground either the ecological or the cultural-preservation dimension of the practice, without explicitly situating the resulting artifacts within postmodern design theory; the present study addresses this narrower gap by connecting Kutnu-based upcycling explicitly to postmodern concepts of hybridity, fragmentation, and material narrative.

In parallel, postmodern design theory has extensively discussed concepts such as hybridity, fragmentation, bricolage, appropriation, and reinterpretation.^{4,13} However, these theoretical perspectives have rarely been integrated with sustainable textile design research through practice-based design applications employing traditional woven fabrics. Likewise, studies in material culture have emphasized the social and cultural meanings embedded within objects,^{5,6} yet relatively few investigations have explored how these theoretical concepts may be translated into contemporary textile products developed through upcycling methodologies.

Accordingly, the present study addresses this interdisciplinary gap by integrating postmodern design theory, material narrative, cultural heritage, and upcycling within a single design framework. Rather than approaching Kutnu fabric solely as a traditional textile requiring preservation, this research interprets it as an active design medium capable of generating new cultural meanings through the combination of pre-consumer textile waste and post-consumer garments. In doing so, the study proposes a practice-based model demonstrating how sustainable textile design can simultaneously contribute to environmental responsibility, cultural continuity, and contemporary artistic expression.

The originality of this research therefore lies not merely in the production of upcycled textile bags but in establishing a conceptual relationship between traditional textile heritage, postmodern artistic thinking, and material-based storytelling. This interdisciplinary perspective expands current discussions on sustainable textile design by positioning cultural heritage as an active component of circular design rather than a passive object of conservation.

Based on the theoretical framework presented above, this study aims to reinterpret traditional Kutnu fabric through postmodern and upcycling approaches in order to develop contemporary textile bag designs that integrate sustainability with cultural continuity. Specifically, the research seeks to investigate how defectively manufactured Kutnu fabrics and post-consumer textile products can be transformed into value-added design objects while preserving their material identity and cultural significance. Furthermore, the study evaluates how material narratives emerge through the combination of heterogeneous textile surfaces and examines the potential contribution of these design practices to sustainable fashion, contemporary textile art, and cultural heritage preservation.

Material and method

This study adopted a practice-based design research methodology, in which knowledge is generated through the iterative process of designing, producing, and critically evaluating creative artifacts.

Unlike conventional experimental research that primarily investigates measurable variables, practice-based research positions the designed object itself as a source of knowledge and reflection.¹⁴ Within this framework, the development of textile bags served not merely as a production activity but as an exploratory process through which the relationships between cultural heritage, postmodern design theory, and sustainable material use were investigated. The research was structured in five sequential stages:

- 1) Material collection and selection
- 2) Design concept development
- 3) Prototype production
- 4) Reflective material and design analysis
- 5) Reflective usability analysis of the final products

This methodological framework enabled the systematic integration of cultural, environmental, and aesthetic considerations throughout the design process.

Design development and prototype production

Following material selection, a design brief was developed to guide the creative process. The primary objectives were to preserve the visual identity of Kutnu fabric, maximize the use of pre- and post-consumer textile waste, apply postmodern design principles, and ensure functional usability. The design process followed an iterative practice-based approach in which material exploration, conceptual development, sketching, and prototype production evolved simultaneously.

Initially, all textile materials were documented and classified according to their structural characteristics, surface textures, colour relationships, cultural associations, and compatibility with Kutnu fabric. Rather than concealing production defects or signs of previous use, these features were intentionally retained whenever they enhanced the material narrative of the final product. Consequently, visible traces such as faded surfaces, seam marks, and structural irregularities were considered valuable design elements reflecting the previous life cycle of the materials.

Based on the design brief, preliminary sketches and alternative material combinations were developed and continuously refined throughout the production process. Postmodern design principles—including hybridity, fragmentation, juxtaposition, layering, and reinterpretation—guided the integration of traditional Kutnu fabric with reclaimed contemporary textiles. Design decisions regarding material proportions, structural reinforcement, handle placement, organizer configuration, and decorative elements were revised repeatedly in response to material behaviour during prototype production.

This iterative process resulted in eleven bags and one interior organizer (twelve prototypes in total). Rather than representing variations of a single product, each prototype embodied a distinct interpretation of cultural heritage, sustainability, and material narratives through the creative reuse of traditional and reclaimed textile materials. Preliminary sketches, alternative material pairings, and construction trials were recorded throughout the process in a design journal; combinations that compromised either the legibility of the Kutnu weave or the structural stability of the bag were identified and set aside before a design was finalised, so that the twelve prototypes presented here represent a selection from a wider field of tested possibilities rather than a predetermined outcome.

Criteria and procedure for reflective design analysis

After the production of the prototypes, each design was examined through a reflective design analysis conducted by the two designer-researchers (the authors) rather than through an independent panel of experts or end users. Following completion of each prototype, both designers independently recorded written reflections on how the design addressed each of the five criteria presented in Table 1; these individual reflections were then compared and reconciled through discussion to produce a shared interpretation for each prototype. This procedure draws on established approaches to reflection-in-action and reflection-on-action in design practice¹⁵ and on the interpretive, first-person modes of inquiry characteristic of design thinking.¹⁶ Because the assessment was conducted by the designers themselves rather than by an independent panel, it is reported throughout this paper as a reflective design analysis rather than as an objective evaluation, and its findings should be read as interpretive rather than statistically generalisable.

The study prioritized the use of pre-consumer Kutnu fabric waste and post-consumer textile products to minimize the consumption of new raw materials. Textile materials were obtained through legal and voluntary sources, and no additional fabrics were produced specifically for this research. The design process was conducted in accordance with the principles of resource efficiency, material recovery, and cultural sustainability. The objective was to demonstrate that traditional textile heritage can be preserved through environmentally responsible design practices while extending the life cycle of discarded textile materials. In this study 11 bags and an organizer were designed. The selection of twelve prototypes was not intended to establish statistical representativeness but to provide conceptual diversity. Collectively,

the prototypes illustrate different approaches to cultural continuity, material reuse, aesthetic transformation, and functional adaptation within sustainable textile design.

Findings: design outcomes as material narratives

The practice-based process described in Section 3 resulted in twelve prototypes—eleven bags and one interior organizer—each conceived as a distinct material narrative rather than a variation on a single product. Materials collected for the eleven bags were first grouped according to colour compatibility and the themes established during the design-brief stage (Figure 1). Rather than presenting the prototypes sequentially as isolated case descriptions, the findings below are organised according to the five criteria introduced in Table 1 (cultural continuity, material narrative, sustainability, usability and postmodern expression), so that the outcomes can be read directly against the framework established in the preceding sections.



Figure 1 Example design groupings.

Table 1 Criteria applied in the reflective design analysis

Criterion	Evaluation focus	Theoretical basis
Cultural continuity	Preservation and reinterpretation of Kutnu heritage	Smith (2006); UNESCO (2003)
Material narrative	Visibility of previous material histories	Miller (2008); Ingold (2013)
Sustainability	Reuse of pre- and post-consumer textile waste	Fletcher (2014); McDonough & Braungart (2002)
Usability	Daily usability, storage capacity, ergonomics	Norman (2013)
Postmodern expression	Hybridity, collage, juxtaposition, reinterpretation	Jencks (2011); Jameson (1991)

Overview of the twelve prototypes

Table 2 provides a comparative overview of the guiding theme, dominant reclaimed materials, and principal design strategy associated

with each prototype; the corresponding photographs are presented in Figures 2–13.

Table 2 Summary of prototype themes, materials, and design strategies

Prototype	Guiding theme	Dominant reclaimed materials	Principal design strategy
Bag 1 (Figure 2)	Cultural Continuity and Modern Surfaces	Warp-knit fabric, nonwoven felt	Surface layering, reinforced opening
Bag 2 (Figure 3)	Industrial Identity and Rebellious Transformation	Black denim, knit jersey	Repurposed pocket, contrast of rigidity/softness
Bag 3 (Figure 4)	Fragmented Identity and Material Narrative	Lined and unlined knits	Patchwork collage, metal hardware
Bag 4 (Figure 5)	Colour, Ritual and Cultural Fluidity	Piqué knit, woven cotton	Asymmetric colour-field composition, beaded handle
Bags 5–6 (Figure 6–7)	Simplicity, Denim Compatibility and Modernism	Denim, faux leather	Minimalist repetition with varied handle detailing
Bag 7 (Figure 8)	Timeless Elegance	Satin, lace	Drape/stability contrast, mixed bead geometry
Bag 8 (Figure 9)	Street Fashion and Soft Living	Lilac knit, garment collar	Repurposed collar as pocket, denim-reinforced opening
Bag 9 (Figure 10)	Balance, Simplicity and Functional Aesthetics	Grey knit, woven cream fabric	Diagonal stripe orientation, soft-form strap
Bag 10 (Figure 11)	Fragmented Wholeness and Reconfiguration	Child's garment (knit, fringe)	Asymmetric assembly, repurposed fringe texture
Bag 11 (Figure 12)	Fragmented Structure, Balance and Ecological Emphasis	Shirting fabric, jute cord	Diagonal triangulation, natural-fibre accent
Bag 12 (Figure 13)	Transparency, Modularity and Controlled Order	Transparent nylon	Modular compartmentalisation



Figure 2 Bag 1.



Figure 3 Bag 2.



Figure 4 Bag 3.



Figure 5 Bag 4.



Figure 6 Bag 5.



Figure 7 Bag 6.



Figure 8 Bag 7.



Figure 9 Bag 8.



Figure 10 Bag 9.



Figure 11 Bag 10.



Figure 12 Bag 11.

Cultural continuity: reinterpreting Kutnu across the collection

Across all eleven prototypes, Kutnu fabric was retained as a constant visual and structural reference, functioning as the element that anchors each design to Gaziantep's textile heritage regardless of the accompanying reclaimed materials. In prototypes such as Bag 1 (Figure 2, "Cultural Continuity and Modern Surfaces") and Bag 9 (Figure 10, "Balance, Simplicity and Functional Aesthetics"), the traditional weave was combined with contemporary knit and woven surfaces without altering its characteristic colour palette or structure, allowing the fabric to remain legible as Kutnu even when embedded within an unfamiliar material context. In colour-driven compositions such as Bag 4 (Figure 5), Kutnu functioned less as a background material and more as a chromatic and symbolic anchor, its historical association with ceremonial dress reframed alongside contemporary piqué and woven surfaces. Consistent with the heritage-oriented design literature discussed in Section 1.3,^{17,18} these outcomes indicate that cultural continuity was achieved not through literal reproduction of historical forms but through the sustained visibility and structural integration of Kutnu within new, hybrid compositions.

Material narrative: visibility of prior histories

A recurring finding across the collection is the deliberate retention of traces belonging to the materials' previous life cycles, in line with Miller's⁵ and Ingold's⁶ understanding of objects as carriers of accumulated social and material history. Several prototypes made this narrative dimension explicit through functional reuse of recognisable garment components: in Bag 2 (Figure 3), a pocket removed from denim trousers was reattached to the base of the bag in its original form, preserving its prior function; in Bag 8 (Figure 9), the collar of a summer dress was repurposed as an exterior pocket, with its decorative trim intentionally left visible; and in Bag 10 (Figure 11), fringes salvaged from the hem of a child's dress were reworked into a textured surface detail. Rather than concealing seams, fading, or structural irregularities, the design process treated these features as legible evidence of prior use, positioning each bag as what Section 1.3 describes as a "material-based storytelling object" rather than a conventional recycled product.

Sustainability: strategies of material recovery

Sustainability outcomes were achieved primarily through the combination of pre-consumer Kutnu waste with post-consumer garments—denim trousers, knitwear, satin garments, and children's clothing—rather than through the introduction of new raw materials. Discarded nonwoven felt was consistently integrated into the internal structure of the bags to provide reinforcement, most notably at stress

points such as the opening of Bag 1 (Figure 2) and the base of Bag 8 (Figure 9), where additional strips of felt or denim were used to extend structural durability without requiring virgin materials. This approach corresponds to the distinction, established in Section 1.2, between conventional recycling and upcycling³: rather than reducing textile waste to a lower-value raw material, the design process preserved and, in several cases, enhanced the material's functional and aesthetic value by reassigning it a new structural role. Across the collection, reclaimed materials—pre-consumer Kutnu offcuts, post-consumer garments, and salvaged nonwoven felt—constituted the visible majority of each prototype's outer and reinforcement layers, with new materials limited largely to thread, zips, and, in selected prototypes, beads and metal hardware; exact proportions by weight were not systematically recorded during production, and this is acknowledged as a limitation in Section 4. It should also be emphasised that these outcomes demonstrate material recovery—the diversion and reuse of specific pre- and post-consumer textile items—rather than a comprehensive environmental sustainability assessment; claims regarding broader impacts such as reduced carbon or water footprint would require a life-cycle assessment, which falls outside the scope of this practice-based study.

Usability and structural adaptation

Usability was pursued as a design objective through handle design, structural reinforcement, and, in the case of Bag 12 (Organizer) (Figure 13), a dedicated organizer system; these design decisions were intended to support durability, ergonomics, and daily use, but, as discussed in Section 4, they were not verified through wear trials, load testing, or user assessment, and should therefore be read as design intentions rather than demonstrated performance outcomes. Handles were consistently produced from the bags' own reclaimed fabrics or from salvaged components—self-fabric handles in Bags 1 and 6, a repurposed faux-leather handle in Bag 5, denim handles in Bag 2, and beaded handles in Bags 4 and 7 (Figures 2, 3, 5–8)—demonstrating that functional elements were treated as integral extensions of the material narrative rather than as neutral hardware. Bag 12, the transparent nylon organizer, was designed to be transferred between the different bags in the collection, addressing storage and daily transition needs while allowing the compartmentalized arrangement of small objects such as pens, keys, and zip-closed items. This modular solution is consistent with Norman's (2013) emphasis on usability as a design consideration operating alongside aesthetic and cultural considerations.



Figure 13 Bag 12 (Organizer).

Postmodern expression: hybridity, collage, and fragmentation

Hybridity, bricolage, collage, and fragmentation^{4,13} were established as design intentions from the outset of the design brief (Section 2.1);

this section therefore examines analytically how far the finished prototypes embody these concepts, rather than simply restating the intended strategy as a finding. Bag 3 (Figure 4, “Fragmented Identity and Material Narrative”) most directly embodies collage, combining thickly lined knit, thin flat knit, and Kutnu fabric in a patchwork structure; the resulting contrasts of rigidity and softness, and the visible metal hardware at each material junction, are interpreted here as a case in which the individual materials retain a legible identity while participating in a shared composition, consistent with the collage principle rather than a predetermined restatement of it. Bag 10 (Figure 11, “Fragmented Wholeness and Reconfiguration”) and Bag 11 (Figure 12, “Fragmented Structure, Balance and Ecological Emphasis”) extend this logic through asymmetric and diagonal arrangements, in which sharply bounded colour and texture zones reference the fragmented condition of contemporary life while their reassembly into a single surface signals a search for renewed wholeness. Taken together, these prototypes demonstrate that fragmentation and reassembly functioned not merely as aesthetic devices but as conceptual translations of the postmodern principles established in the theoretical framework.

Discussion

The discussion below first considers what can be directly observed in the finished prototypes before turning to their interpretation against the theoretical framework introduced in Section 1. The findings presented above indicate that the twelve prototypes (11 bags and an organizer) collectively operationalise this theoretical framework, translating postmodern design concepts and material culture theory into concrete, wearable design outcomes. At the level of direct observation, structural decisions such as the placement of reinforcement felt, the retention of a denim pocket, and the asymmetric assembly of a child’s garment are documented in Section 3. Interpreted against Ingold’s⁶ argument that materials actively participate in the creative process, these decisions are read here as evidence that Kutnu fabric and reclaimed garments were not treated as passive substrates awaiting reinterpretation, but as materials in continuous dialogue with the designers, echoing the iterative, non-linear process described in Section 2.1.

The results also substantiate the study’s central claim, introduced in Section 1.4, that Kutnu fabric can be positioned as an active design medium rather than an artifact requiring static preservation. Across the collection, cultural continuity was sustained precisely because Kutnu was permitted to interact with materials from unrelated temporal and functional contexts—denim workwear, satin evening wear, and children’s clothing—without losing its own legibility. This supports the heritage-oriented design literature’s contention that safeguarding intangible cultural heritage need not be confined to conservation, but can be extended through contemporary reinterpretation,^{17,18} while simultaneously demonstrating the upcycling principle that material value can be increased, rather than diminished, through creative reuse.³

Limitations

At the same time, the findings should be interpreted within the limitations inherent to practice-based design research. As noted in Section 2.2, the twelve prototypes (11 bags and an organizer) were not intended to constitute a statistically representative sample but rather to illustrate conceptual diversity within a single design framework; consequently, the criteria in Table 1 were applied through the reflective design analysis conducted by the two designer-researchers rather than through independent expert or user evaluation, and the resulting interpretations should not be read as generalisable findings. A related

limitation concerns positionality: because the same individuals both produced the prototypes and interpreted them against the theoretical framework, the analysis is inherently susceptible to confirmation bias, and an independent reader may not identify the same postmodern or heritage-related qualities in the finished objects. Claims concerning durability, ergonomics, and usability (Section 3.5) are similarly based on design intention rather than on wear trials, load testing, or user assessment, and the proportion of reclaimed to new material was not systematically quantified during production (Section 3.4). Future research could extend this study by incorporating structured consumer or expert evaluation of the prototypes’ perceived cultural authenticity and usability, quantitative assessment of the durability contributed by the felt reinforcement strategy described in Section 3.4, and systematic material-composition reporting.

Conclusion

This study set out to reinterpret traditional Kutnu fabric through postmodern and upcycling approaches in order to develop textile bags that integrate sustainability with cultural continuity. Through a practice-based methodology combining pre-consumer Kutnu waste with post-consumer denim, knitted, and woven materials, twelve prototypes were produced in which visible traces of prior use—seams, pockets, fringes, and structural irregularities—were retained as deliberate design elements rather than concealed defects. The findings demonstrate that cultural continuity, material narrative, sustainability, usability, and postmodern expression can be addressed simultaneously within a single design framework, positioning the resulting bags as material-based storytelling objects rather than conventional recycled products.

The originality of this contribution lies in establishing a conceptual and practical relationship between traditional textile heritage, postmodern artistic theory, and upcycling methodology—an intersection that, as identified in Section 1.4, remains underexplored in the existing literature. By treating Kutnu fabric as an active design medium capable of generating new cultural meanings, rather than as a historical artifact requiring preservation in isolation, this study offers a preliminary, practice-based conceptual model—grounded in a single design team’s reflective analysis of twelve prototypes—that other regional textile traditions facing similar heritage and waste challenges may find useful as a starting point for adaptation. Establishing this model as a validated, transferable framework would require the larger-scale trials and independent evaluation outlined below. Future work should extend this framework through larger-scale production trials, structured user and expert evaluation, and comparative studies applying the same postmodern-upcycling model to other traditional woven textiles.

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Conflicts of interest

The authors declare no potential conflicts of interest.

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