

PRESERVING HERITAGE IN THREADS: A STUDY OF ORANG ULU MOTIF ADAPTATION IN CONTEMPORARY ETHNIC WEAR CRAFTED BY SMES

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Abstract. The delicate balance between preserving the rich cultural legacy of Orang Ulu motif patterns and adapting them to current items of ethnic wear made by small and medium-sized enterprises (SMEs) is examined in this research. The study explores how Orang Ulu motifs are used in modern clothing production in Sarawak, Malaysia, acknowledging the importance of community involvement in documenting and organising this cultural legacy. While they need to be protected, these culturally significant designs must also be relevant in contemporary fashion due to modernisation and changing consumer preferences. This study aims to examine factors influencing consumers' purchase behaviour regarding ethnic wear or cultural clothing made by SMEs. Cultural anthropology, design innovation and business development were used to examine how SMEs might preserve Orang Ulu culture. Interviews, surveys and design studies were employed to understand producer and customer preferences and expectations. Relevant variables were obtained from a literature review. This empirical study used a well-structured face-to-face and internet-based customer questionnaire to survey 194 respondents. SPSS software was used to analyse the data using ranking scale analysis, analysis of variance and Pearson's correlation. This research identifies several techniques for incorporating traditional Orang Ulu motif designs into contemporary ethnic clothing to help SMEs balance cultural preservation and market viability. The complex process of conserving cultural themes despite global developments is explored, emphasising the need for adaptation to maintain cultural identity in the global market. The research will help SME owners and entrepreneurs meet customer expectations and build brand loyalty. The study's limitations include a small sample size and a focus on consumer behaviour towards transformative ethnic wear made by SMEs, so the results cannot be applied to other firm types. SMEs making transformative ethnic wear are crucial for economic diversification, particularly in developing nations like Malaysia.

Keywords: Contemporary clothes, cultural preservation, developing motif design, ethnic wear, SME products, transformative design, traditional design.

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1. Introduction and Related Literature

Malaysia has gained international recognition as a highly innovative and swiftly progressing nation, a claim supported by a multitude of indices, including the Global Innovation Index (GII). Consistent with its future paradigm, the country is proactively shifting its economy from one reliant on resources to one that is knowledge-driven. Malaysia is positioned among the foremost innovative economies in Southeast Asia, according to the 2020 GII ranking and it holds a prominent global rank. Malaysia is home to numerous established micro, small and medium-sized enterprises (MSMEs), a subset of which generates considerable employment prospects. As the primary engine of the national economy, the activity of small and medium-sized enterprises (SMEs) is critical. While Malaysia stands as a beacon of innovation, the nation's indigenous Orang Ulu groups face the challenge of safeguarding their cultural heritage amidst economic integration and globalization, particularly within the SME sector. Henceforth, this study delves into the delicate balance that SMEs should strike between preserving the rich cultural legacy of Orang Ulu motifs and adapting them to contemporary ethnic wear as the following literature.

Orang Ulu Ethnic: Situated on Borneo, the third world's largest island, Sarawak possesses an extensive cultural heritage that remains largely uncharted. The culture of Sarawak is vibrant and captivating to investigate due to the presence of distinctive and indigenous ethnic groups (Sahari & Hasan, 2016). The Orang Ulu, a heterogeneous group of peoples residing in Central Borneo - including Sarawak, Malaysia and adjacent areas - historically enforced social stratification through the imposition of limitations on the varieties of ornamentation that individuals were permitted to use and don. Constituting 26 distinct ethnic groups, the Orang Ulu are also known as the "people of the interior" (Rosli *et al.*, 2021). Their various groups include *Kenyah, Kayan, Kelabit, Kajang, Murut, Penan, Saban, Tabun, Ukit* and *Punan*. By custom, Orang Ulu avoided the use of insignia deemed unsuitable for their social class. The tiger, an emblem of authority, was a favoured motif of the affluent, although the Borneo people could only have been informed of the monarch of the Malayan jungle through rumour; tigers do not inhabit their island (Leibrick, 1989).

An additional motif employed in Orang Ulu woven basketry techniques is *kelawit*, which originates from sword blade designs utilised to remove vegetation. Although numerous individuals, particularly weavers in the community, implement the patterns into their basketry, the interpretation and significance of the patterns differ depending on the individual responsible for them. The proliferation of motif nomenclature among different ethnic groups, as well as between individuals and villages, has contributed to this (Ball, 2009). As a result, numerous motifs have even entirely lost their names. Meanwhile, the vast majority of utilitarian objects used by the Orang Ulu do not qualify as works of art; rather, they were created to facilitate daily activities. The woven patterns utilised in their receptacles consist solely of small interpretable symbols. Therefore, these woven patterns lack traditional spiritual and social connotations, being purely ornamental (Ball, 2009). The indigenous Orang Ulu possesses an enduring customary practice of motif creation that manifests their cultural distinctiveness, convictions and heritage. These motifs, which have been transmitted across generations, are an essential component of their material culture. A historical overview is provided to explain the essence of Orang Ulu motif designs. Deeply ingrained in Orang Ulu rituals, beliefs and daily existence, these motifs symbolise significant

concepts that are fundamental to their cultural identity. Nevertheless, at a time characterised by economic integration and globalisation, the Orang Ulu are encountering the formidable task of safeguarding their cultural legacy while actively engaging in modern economies, such as the SME sector (Aaijaz & Ibrahim, 2010).

SME's Product: In addition to food and beverages, tobacco and tobacco products, textiles, fashion, wood, furniture, appliances and electrical apparatus, the small and medium-sized enterprises (SMEs) sector manufactures an extensive array of industrial goods. These firms make a key contribution to Malaysia's national economy by fostering a thriving manufacturing sector, increasing exports to the global market and creating jobs. This contribution has frequently been emphasised, according to Kawane et al. (2022). In addition to the performance and operational excellence that enables SMEs to implement successful business concepts, the future of these organisations will strongly depend on sustainable production methods that integrate environmental and socio-economic factors to meet expectations for optimal products, processes and productivity. Several mechanisms utilised by SMEs to accomplish sustainability in their manufacturing operations have been examined, including the combination of the lean principle and eco-design/materials selections to improve non-emitting, energy-conserving practices.

Various studies have used statistical methods to analyse factors that contribute to the environmentally, economically and socially sustainable business activities of SMEs. These enterprises constitute a substantial portion of the regional economy and their sustainability has a profound influence on the sustainability (Kawane *et al.*, 2022). SME-oriented funding, research and development must be enhanced, as must their use of cutting-edge technologies. Nevertheless, they possess assets in the form of decision-making flexibility and extensive engagement with the external environment. Yadegaridehkordi et al. (2023) provided empirical evidence supporting the notion that small and medium-sized enterprises engage in innovative endeavours that promote environmental sustainability and positively impact a region's environmental, economic and social performance.

Similarly, the assertion that an organisation's environmental performance is significantly predicted by its environmental sustainability orientation was substantiated by Rehman et al. (2022). Moreover, Dey et al. (2022) discovered a positive correlation between the economic performance of SMEs and the implementation of circular economy practices, suggesting that these firms could enhance their environmental performance (Dey *et al.*, 2022). On the other hand, the paucity of resources available to SMEs and the influence of management perceptions must be considered as obstacles to this enhancement. In response, Artin (2022), Fahad et al. (2022) and Rodríguez-Espíndola et al. (2022) proposed strategies to address these obstacles, including governmental and non-governmental provision of opportunities for collaboration, networking and training.

Material Culture: Prown (1982) defined material culture as the examination of artefacts that represent the beliefs of a specific community or society during a specific period. The world arguably presents itself to us through tangible objects and undergoes ongoing development through our actions. Prown (1982) proposed that the classification of items should be based on their functions to facilitate the organisation and retrieval of information, given the extensive cultural variation of these objects. His six classifications encompass art (paintings, drawings, print, sculpture, photography), diversions (books, toys, games, meals, theatrical performances), adornment (jewellery,

clothing, hairstyles, cosmetics), modifications of the landscape (architecture, agriculture), applied arts (furniture, furnishings, receptacles) and devices (machines, vehicles, musical instruments, implements, scientific instruments) (Prown, 1982). This study focused on investigating adornment design in Orang Ulu culture.

The study of consumer behaviour involves analysing how individuals or groups choose and decide what to buy, use or dispose of to fulfil their needs and preferences (Jalil & Shaharuddin, 2019). Gaining insights into consumer preferences, attitudes and purchasing behaviour is crucial to ascertain how prospective customers would react to novel products or services. In addition to helping marketers to boost sales through the manipulation of client responses, comprehending consumer behaviour also enables firms to identify untapped prospects. Academic research has focused extensively on customer perceptions, preferences and satisfaction in the global market and consumer behaviour. However, conclusive evidence is lacking about customer preferences, purchasing intentions and perceptions of small and medium-sized enterprises in the hospitality and tourism industry (Munusamy & Chelliah, 2011). Understanding customers is crucial to meeting their expectations and achieving customer loyalty and satisfaction. In turn, these aspects are essential if organisational goals are to be reached and regarded as a fundamental measure of success and a potential benchmark for excellence in any organisation (Munusamy & Chelliah, 2011).

Motif and Dress Design: A motif is a repeating design that helps reinforce a main theme. Various floral, geometric motifs are repeated to highlight the design (Suhaimy & Abdullah, 2019). The design of a dress can depend on the theme, with the design consisting of images or forms that represent that theme. A pattern can be regarded as that part of the design that carries its identity or character. In the design world, this is called a motif. Motifs are often used repeatedly throughout the design, thus becoming the main point of the design. A motif frequently plays the same role even after being used only once (Rosli *et al.*, 2021). Designers perform intermediary and facilitating roles in the collaborative process, transferring ideas between different sources.





Designers can leverage their expertise across several domains to generate novel thoughts and foster creativity (Tung, 2012). Globalisation in the fashion industry, along with the emergence of small and medium-sized enterprises, has ushered in a new era characterised by increased cultural interchange. Small and medium-sized enterprises, which are frequently strongly integrated within local communities, possess a distinct advantage in their ability to contribute to the conservation of indigenous culture. This section explores SME involvement in manufacturing modern ethnic clothing, specifically focusing on these firms' motives, problems and achievements in integrating Orang Ulu motif designs. The recent globalisation of fashion has forced a reassessment of conventional designs, resulting in their integration into modern ethnic clothing.

Ultimately, the research emphasises the significance of conserving and modifying Orang Ulu motif designs in modern ethnic clothing items made by small and medium-sized enterprises (Suhaimy & Abdullah, 2019). SMEs can have significant impacts on cultural sustainability and economic development by effectively managing the interplay between tradition and modernity (Yadegaridehkordi *et al.*, 2023). The objective of the current research is to encourage further investigation and cooperation between indigenous people and the fashion business for the mutual benefit of cultural preservation and economic expansion. Industrialisation has driven a clothing transformation from traditional to modern outfits. Modern cultural outfits require

harmonious motif junction. Consequently, this has fundamentally changed the practice of traditional clothing production.

Motif design is a significant aspect of Orang Ulu's material culture because it reflects the community's cultural identity, values and beliefs. Orang Ulu motif designs are characterized by intricate patterns and symbols that are rich in meaning and often draw inspiration from the natural world. The motif designs of the Orang Ulu community possess a significant cultural heritage, characterized by a lengthy and profound historical background. The cultural artefacts have been transmitted across successive generations and are regarded as a means of safeguarding the community's historical and traditional legacy. Rosli et al. (2021) assert that motifs constitute the primary focus in the design of adornments and art within ethnic communities, serving to enhance the aesthetic appeal of the artwork. The production of hand motif art by ethnic groups in Sarawak is characterized by meticulous, delicate and unique craftsmanship. "High-ranking" motifs applied in Orang Ulu culture are the human figure, hornbill, tiger or leopard. Some of the common categories of motif types in the art include the Table 1 (Ball, 2009; Leibrick, 1989; Omar *et al.*, 2016; Sahari, 2013; Sahari & Hasan, 2016; Suhaimy & Abdullah, 2019).

Table 1. Classification of Orang Ulu's Motifs and their Properties in the SME Orang Ulu products

	Geometrical Motif	Abstract Motif	Animal Motifs	Mythological Motifs
Photo				
Description	These motifs are based on geometric shapes and patterns such as squares, circles, triangles and spirals. Photo taken by the author and it is inspired by Tiger feet	These motifs are based on shapes that are not representational of any specific object. The photo was taken by the author and it is inspired by the human and it has been reconstructed.	These motifs are based on the shapes and patterns of animals, such as birds, fish, etc. Photo taken by author and in this sunhat, Dragon used straightforwardly in decorative design.	These motifs are based on the myths and stories of different cultures, often featuring figures such as gods, goddesses and heroes. Photo taken by author and in this sunhat, Decorated with spiritual dragons and aso' motifs (dog motifs)

The intricate motifs of the Orang Ulu, encompassing various ethnic groups, carry deep cultural significance and have been a persistent element of their material culture. As Malaysia witnesses a shift from resource-reliance to a knowledge-driven economy, SMEs play a pivotal role in this transition by manufacturing a diverse array of industrial goods, including textiles and fashion. To elucidate the intersection of cultural preservation and economic viability, this study focuses on the integration of Orang Ulu motif designs into modern ethnic clothing produced by SMEs. As Malaysia's SMEs contribute substantially to the national economy, understanding the dynamics between sustainable production, economic considerations and the design process becomes paramount for their continued success. Furthermore, the introduction emphasizes the study's commitment to exploring consumer behaviour about ethnic wear from SMEs, offering insights into customer preferences and attitudes. The connection between sustainable practices, economic considerations and the preservation of cultural identity

is positioned as a central theme, setting the stage for a comprehensive examination of the adaptation of Orang Ulu motifs in contemporary ethnic wear within the SME sector.

1.1. Hypothesis Development

The researchers expected that consumers' preferences for the five components (traditional design, transformative design, pattern design, multi-material design and decorative design) would influence their desire to buy ethnic wear products. These five elements are accepted from previous research (Miyauchi *et al.*, 2023), which tested the willingness to purchase denim garments as a unique product. As a result, the five design aspects were assessed to purchase ethnic wear products (Figure 1).

1.1.1. Traditional Design

Miyauchi *et al.* (2023) defined traditional design as the preservation of original design. Producing items with these qualities would enable consumers to buy authentic reproductions of popular Orang Ulu attire (Fujioka & Wubs, 2020; Sahari, 2013). Thus, the inclusion of traditional design aspects in Orang Ulu clothing products might influence consumers' purchasing intentions. As a result, the following hypothesis was proposed:

H1: Consumers who prefer traditional design elements show a high willingness to purchase ethnic wear products.

1.1.2. Transformative or Developed Design

Transformative design is a design framework that is out of the ordinary. The term "transformative" refers to the process of changing the shape or structure of anything without its substance being lost (Miyauchi *et al.*, 2023; Moon *et al.*, 2013). Furthermore, luxury fashion designers have made advancements to highlight the visual attraction of distinctive fabrics (Fujioka & Wubs, 2020; Jalil & Shaharuddin, 2020). As a result, the use of transformational design aspects in ethnic wear products might affect consumers' purchasing intentions. Therefore, the following hypothesis was proposed:

H2: Consumers who prefer transformative design elements show a high willingness to purchase ethnic wear products.

1.1.3. Pattern and Motif Design

The application of a pattern is referred to as pattern design. Certain patterns increase the aesthetic appeal of a product's appearance (Feijs & Toeters, 2018; Lungu *et al.*, 2021). Pattern design is now considered a vital aspect that influences the purchasing motives of today's consumers, given the improvements in the aesthetic appeal and emblems of brands (Suhaimy & Abdullah, 2019). As a result, the use of pattern design in ethnic wear products might impact consumers' purchase decisions. Therefore, the following hypothesis was proposed:

H3: Consumers who prefer pattern design elements show a high willingness to purchase ethnic wear products.

1.1.4. Multi-Material Design

The use of multiple materials is referred to as multi-material design. This is positioned in the fashion environment to develop new designs (Sellato, 2017). Ethnic

wear goods retain their original distinctiveness while expanding the spectrum of fashion patterns by incorporating new fabric combinations (Suaib *et al.*, 2020). The use of multi-material design in ethnic wear products might affect consumer purchasing intentions. Therefore, the following hypothesis was proposed:

H4: Consumers who prefer multi-material design elements show a high willingness to purchase ethnic wear products.

1.1.5. Decorative Design

Decorative design refers to the addition of embellishments such as embroidery, applique and printing. As designers began creating ethnic wear products as fashion products, the self-expression and personal fashion appeal of consumers grew more significant (Ismail *et al.*, 2021). As a result, today's consumers embellish their ethnic wear products with decorative design components, which are also worn as a form of self-expression. Consequently, numerous designers have positioned decorative design to expand and disrupt the market (Ismail *et al.*, 2021). As a result, the use of decorative designs in ethnic wear products may increase the product's value to buyers. Therefore, the following hypothesis was proposed:

H5: Consumers who prefer decorative design elements show a high willingness to purchase ethnic wear products.

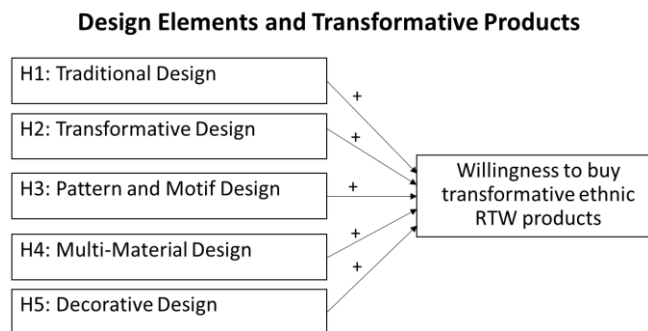


Figure 1. Model of Intention willingness to purchase ethnic wear products

2. Methodology

The methodology employed in this study was intended to produce a comprehensive understanding of the preservation and adaptation of Orang Ulu motif designs in contemporary products made by small and medium-sized enterprises products. A mixed-methods approach was used, which included qualitative interviews with Orang Ulu designers and entrepreneurs, as well as quantitative data collection regarding market trends and consumer preferences for Orang Ulu-inspired SME-made products. The study took place in the Sarawak region of Malaysia, which is home to a significant Orang Ulu population.

2.1. Qualitative Data Collection

Qualitative data was gathered through semi-structured interviews with key informants. In this phase, the interviews were intended to verify the motifs developed for new products among SME entrepreneurs and local clothing designers. The aims were to provide logical inferences about existing trends in organisational performance, uncover future paths to corporate business progress and obtain recommendations for

methods to accelerate change in the manufacturing industries sector. Collation and analyses were generated from the semi-structured interviews with eight managers/experts/owners/designers and registered enterprises run by indigenous people. As previously stated, important variables driving designers to produce ethnic clothes were initially acquired by searching the literature in databases such as Web of Science, EI, ASCE and Science Direct. Then, from May 2023 to June 2023, eight people involved in ethnic wear design and production were invited to semi-structured interviews to supplement the exhaustive material from the literature search. To improve the study outcomes, a follow-up semi-structured interview study was held with people with more than five years of clothes design and production experience. The interview questions were divided into four categories, as explained below.

(1) The first segment addressed the informants' views on traditional wear or ethnic clothing design by asking, 'How knowledgeable are producers in the ethnic clothing sector?', 'How willing are clothing manufacturers to invest money and resources in the development of handcrafted ethnic clothing?' and 'How well do consumers understand the concept of ethnic wear or traditional fashion?'

(2) The second part centred on the informants' attitudes and experiences: 'Have you ever designed or financed the production of transformative ethnic clothing?'

(3) The informants' visual stimulus opinions, observations and perceptions were addressed in the third section.

(4) In the final section, demographic information was obtained, such as each subject's age, occupation, employer location, firm size, university and number of years of work experience at their current organisation.

For every 30-minute interview, the audio was recorded with the interviewee's permission. The interviews were typed up and the interview transcripts were checked regularly to ensure authenticity and consistency.

2.2. Quantitative Data Collection

All the variables in the proposed model were measured using a multi-item self-administered survey questionnaire. The first component of the questionnaire solicited demographic information from the participants, whereas the second segment contained all the measurement items for all the variables. The measurement items of all three constructs were multi-item seven-point scales. To collect quantitative data, surveys were distributed to consumers who had purchased garments from SMEs. Consumer preferences, purchase reasons and the impact of cultural authenticity on purchasing decisions were assessed through the surveys. A conclusive cross-sectional descriptive study approach was used to evaluate and acquire an understanding of the perceptions of consumers who preferred/purchased handcrafted products. A questionnaire with three components served as the survey instrument.

The first component addressed the respondents' socioeconomic and demographic characteristics, such as income, age, career and educational credentials. The following section aimed to evaluate the respondents' overall views on ethnic wear by examining whether the items made by SMEs were conventional or transformational and then obtaining deeper insights into the respondents' perceptions of these specific products. The final segment concentrated on the created artisanal ethnic clothing designs. A pilot survey was conducted on a diverse range of clients to ensure the accuracy of the data. Following content analysis, as well as extensive discussion and deliberation, the questionnaire was revised, with some items removed and others added. The trial ran

from September 2023 until November 2023. The questionnaires were manually administered to ensure the accuracy of the information provided. In the previous two years, they needed to have purchased SME products or visited SME stores, village industry shops, or rural craft exhibits at least once.

A Likert scale was used to identify how practices in small businesses that make clothes for ethnic Orang Ulu people were changing over time, with a set of five questions answered for each theme. The feedback was coded to give symbolic meaning to the themes identified, based on the research goals. SPSS version 25 was used for the analysis, with the results compared to the answers and observations from the interviews. To ensure the data was correct, it was reverse-scored and checked for good association. The information was also tested to determine its reliability. The Likert scale contained comments to which the responses ranged from (1) *strongly disagree* to (5) *strongly agree*.

The pilot study was performed to ensure the measurement tool was effective and the items were easy to understand. The first step in the data analysis process was to use the SPSS statistical descriptive menu to check that the data was complete and useful. To ensure the high content validity of the instrument, variables demonstrating how consumers felt about goods made by small businesses were gathered from previous research and carefully examined by six professionals and two academics with more than five years of experience. Reliability tests were performed on the data to ascertain whether random mistakes, which can lead to inconsistency and lower reliability, were not too problematic.

3. Findings and Discussion

3.1. Qualitative Data Analysis

Developing ethnic wear design for SMEs required a systematic and creative design process. The subsequent phase involved sketching and creating initial designs, generating motif sketches and ethnic wear design concepts and sketching preliminary designs for three costumes that incorporated the chosen motif. Once the research and inspiration have been gathered, the next step is to conceptualize motifs in the clothing design. This involves creating sketches or digital renderings of the motif, experimenting with different shapes, colours and patterns and refining the design until it reflects the community's cultural identity. This study adopted the main character in the Orang Ulu motif design (abstract motif design) which is a spiral and curvy shape as shown in Figure 2 and inspired by a decorated baby carrier from Table 1.

Figure 2 shows the stages of creating SME-made ethnic wear products to validate the designs and materials. The first step began with conceptualisation, brainstorming and generating ideas for motifs that would resonate with the values and industry of SMEs. Following this, digital rendering and the transfer of sketches to a digital format commenced, with graphic design software used to digitise both the motif and costume sketches. The process also included experimenting with colour schemes and detailing. Finally, the ethnic wear prototypes were created by developing prototypes of the three costumes.

The study did not employ a highly specific method for developing prototypes, as it was not the primary goal of the research. Instead, the focus was on obtaining feedback from observing prototypes related to the preservation and adaptation of Orang Ulu motif designs in contemporary ethnic wear Small and Medium-sized Enterprise

(SME) products. Hence, all three artisanal ethnic Orang Ulu dresses were presented at the Sarawak Eco-Fashion Gala in Kuching, held in November 2023, to ensure some of the respondents could see the outfits in a real setting and provide a better evaluation.



Figure 2. Design process from ideation to create artisanal ethnic orang-ulu wear

The authors expected to learn about handcrafted ethnic Orang Ulu attire, information that would assist craftsmen and local dressmakers in the manufacturing of ethnic wear. The major goal was to comprehend both favourable and negative perspectives of the artisanal transformational ethnic Orang Ulu attire. The demographic profile of the interviewees is listed in Table 2.

The interviews, which lasted between 20 and 30 minutes, were audio-recorded and transcribed. The interview data was evaluated using open coding and microanalysis. The interview transcripts were read in a variety of ways, the coded data was labelled and news stories were written. Following the creation of ‘the initial categories, the coded data was evaluated, interpretive alternatives were discussed and the organisation and display of the data were decided. Researchers and clinicians whose work focuses on a certain group may find it beneficial to conduct usability testing geared exclusively to that community. The participants in this survey were asked for their thoughts and comments on the usability and functioning of ethnic wear.

Orang Ulu dress. C1 stated, *“The artisanal collection demonstrates a deep respect for traditional craftsmanship. The meticulous detailing and intricate handwork on the Orang Ulu motifs showcase an understanding and appreciation of our cultural heritage”*. D2 believed that *“The integration of Orang Ulu motifs in this artisanal collection is truly innovative. The designer has skillfully blended traditional elements with contemporary design, creating pieces that are not only culturally rich but also fashion-forward”*. Table 3 shows the positive and negative comments of the informants in response to the artisanal ethnic Orang Ulu dress design. Regarding the experience of involvement in sustainable trends in SEM-made products, E1 said, *“The emphasis on sustainability, particularly through the collaboration with local artisans, aligns well with current consumer trends. This eco-friendly and socially responsible approach can contribute positively to the brand's image”*. Nevertheless, all the informants suggested that collaboration with local artisans for this collection would enhance its sustainability.

Concerning cultural purposes, L2 stated *“There may be concerns about cultural appropriation that need careful consideration. It's essential to ensure that the collection respects the cultural context without commodifying or misusing Orang Ulu motifs in a way that could be perceived as insensitive”*. L1 emphasised the *“need for a more critical engagement with industry norms and practices within the fashion system. How the collection addresses or challenges existing power structures, stereotypes and consumerism in the fashion industry should be more explicitly explored within an academic context”*.

Table 2. Demographic information interviewees

	Age	Career	Expertise	Experience	Sex
C1	52	Craftsmen	Orang Ulu Craftsmen	25 years	Male
D1	44	Designer	Fashion Designer specializing in Ethnic Wear	14 years	Female
E1	48	Entrepreneur	SME Entrepreneur	11 years	Male
L1	40	Lecturer	Academic Experts in Fashion Studies	15 years	Male
E2	36	Entrepreneur	SME Entrepreneur	5 years	Female
L2	38	Lecturer	Academic Expert in Fashion Studies	9 years	Female
D2	36	Designer	Fashion Designer specializing in Ethnic Wear	5 years	Female
D3	48	Designer	Fashion Designer specializing in Ethnic Wear	12 years	Male

D3 had a positive experience when working on cultural clothing design, but he emphasised that this new collection primarily focused on a few prominent Orang Ulu motifs, missing an opportunity to explore the full richness of the tradition. A more comprehensive exploration of lesser-known motifs could have added depth to the collection. C1 believed that while collaboration with local artisans had been mentioned, the specific details of the collaboration process and the involvement of craftsmen could have been communicated more transparently. Clarity on how artisans contributed to the collection would be essential for a more accurate representation.

The information obtained from the eight respondents showed that the concept of creating artisanal ethnic Orang Ulu dress based on new trends was acceptable. However, the collaboration needed to be improved and more transparent; some suggested undertaking market analysis before these kinds of ethnic wear were introduced in SEM-made products. The respondents believed that the pricing strategy for these artisanal dresses would need careful calibration. While the products could be seen as unique and culturally rich, a judicious balance between exclusivity and affordability was deemed crucial for attracting and retaining consumers.

L1 presented her valuable reaction when she understood that the motifs had been verified by the artisan: *“I appreciate the collaboration with local artisans. By involving them in the creative process, the designer not only ensures authenticity but also contributes to the sustainability of traditional craftsmanship”*. L2 also stated *“The collection demonstrates a commendable level of cultural sensitivity. The designer has managed to integrate Orang Ulu motifs in a way that respects and celebrates the cultural nuances, avoiding appropriation or misrepresentation”*. However, when asked about collaboration with artists and making the collection more unique and luxurious, E2 stated, *“Well, but there may be gaps in understanding the target market. Conducting more in-depth market research to gauge consumer preferences and demand for Orang Ulu-inspired artisanal can help refine the collection for better market reception”*.

Overall, based on the findings, the respondents offered positive feedback and liked the idea of creating artisanal ethnic Orang Ulu dress to help local designers, artists and entrepreneurs adhere to modern trends and the new generation. The respondents’ greatest concerns were the manner of collaboration with artists and the need for more research on the pricing design; this feature could be included in future studies.

Table 3. Informants’ responses

Interviewees	Drawbacks/disadvantages	Benefits/advantages	Suggestions
Craftsmen C1	<ul style="list-style-type: none"> No transparent information about collaboration. A question about how artisans contributed to the collection. Unclear long-term sustainability of collaborations. 	<ul style="list-style-type: none"> Deep respect for traditional craftsmanship. Highlights meticulous detailing and intricate handwork on Orang Ulu motifs as a transformative item. Collaboration with local artisans was a sustainable approach to support the longevity of craftsmanship. 	<ul style="list-style-type: none"> Specific details are needed on the collaboration process with craftsmen. Global exposure to Orang Ulu craftsmanship would economically empower craftsmen. Incorporate motifs into high-end fashion and be more decorative.

Designers D1 D2 D3	<ul style="list-style-type: none"> • Some factors lose cultural essence due to excessive modern influences. • Collection primarily focuses on a few prominent motifs. • A missed opportunity to explore the full richness of tradition. • No comprehensive exploration of lesser-known motifs could have added depth to the collection. 	<ul style="list-style-type: none"> • Described the artisanal collection as innovative and transformative. • Emphasised the cultural richness and fashion-forward nature of the pieces. • Expressed the potential for broad market appeal. • Attributed the uniqueness and global resonance to the incorporation of Orang Ulu motifs. Appreciated the collaboration with local artisans. 	<ul style="list-style-type: none"> • Potential lack of a deep understanding of cultural nuances. • Recognised the importance of involving artisans in the creative process for authenticity. • Highlighted the skilful blending of traditional elements with contemporary design. • Emphasised the importance of adapting to contemporary trends.
Entrepreneurs E1 E2	<ul style="list-style-type: none"> • No strategy for the careful calibration of pricing. • No highlighting of potential gaps in understanding of the target market. • Limited options; range could include more options, possibly catering to different occasions or seasons. 	<ul style="list-style-type: none"> • Emphasised versatility in silhouettes and designs. • Viewed adaptability as a key selling point for the target audience of SMEs. • Stressed the emphasis on sustainability in the collection. • Noted the fusion of traditional motifs with modern design elements to create unique products. 	<ul style="list-style-type: none"> • Highlighted collaboration with local artisans. • Suggested this approach could contribute positively to the brand's image in line with current consumer trends. • in-depth market research is needed to gauge consumer preferences.
Lecturers L1 L2	<ul style="list-style-type: none"> • Concerns about cultural appropriation. • Careful consideration is needed to ensure the collection respects the cultural context. • No information about how the collection addresses or challenges existing power consumerism in the fashion industry. 	<ul style="list-style-type: none"> • A commendable level of cultural sensitivity. • Emphasised the avoidance of appropriation or misrepresentation. • Collection showcases a commitment to ethical fashion practices to transfer tradition to modern. • Collection aligns with the growing emphasis on ethical considerations. 	<ul style="list-style-type: none"> • Focus on sustainability and the inclusion of local artisans. • Highlighted the importance of avoiding commodification or misuse of Orang Ulu motifs. • Advocated a more explicit examination of these aspects in an academic context.

Regarding the interviewees' responses to the attributes of the ethnic wear collection (further suggestions recommended more research in future studies), in crafting a collection that would seamlessly weave *traditional* and *transformative* design elements, a central concern was a collaboration with local artisans, which would ensure a blend of cultural sensitivity and respect for traditional craftsmanship. This collaboration not only produced a deeper understanding of old ethnic designs but also emphasised the importance of preserving traditional knowledge.

The collection's *transformative* aspect was evident through the innovative design integration, offering a global appeal with its minimalistic design approach. *Patterns and materials* are pivotal, given the focus on sustainability and meaningful symbolism, although there is scope for a more extensive exploration of motifs. The *detailed design* work incorporates multiple fabrics and materials, creating a rich tapestry of textures and forms. In adopting ethical fashion practices, the collection strikes a balance between artisanal techniques and fast-fashion approaches, emphasising both decorative design elements and the significance of responsible, thoughtful craftsmanship in the world of contemporary fashion.

3.2. Quantitative Data Analysis

This study was based on primary data obtained through a cross-sectional (data collected at one time) survey. In total, 278 questionnaires were distributed via email, social network websites and manual methods in various Sarawak locations: Kuching, Sri Aman, Bintulu and Miri. Over a one-month period, only 194 questionnaires were returned, yielding a response rate of 77.3%. Table 4 summarises the demographic features of the respondents. The data for this survey was collected mainly from Sarawakian respondents, regardless of their ethnicity or religion. In total, 194 people responded, including 23 males (12%) and 171 females (88%). Most had graduated from high school (51%), while others were college graduates (30%) or had not finished high school (12%). Many participants were under 24 years old (48%), with others aged between 25 and 35 (24%) and a small percentage over 45 years old (10%). Most were students (55%), salaried employees (23%) or self-employed (16%).

Table 4. Demographic profile of respondents (N=194)

Variable		Frequency	Per cent
Gender	Female	171	88
	Male	23	12
Age	Under 25 years old	92	48
	25-35 years old	48	24
	36-45 years old	35	18
	Over 45 years old	19	10
What is the highest level of education you have completed?	College Graduate	59	30
	High school graduate	98	51
	Less than high school	23	12
	Professional Degree	14	7
Occupation	Student	106	55
	Salaried employee	45	23
	Self-employed	32	16
	Unemployed	11	6
Ethnic	Orang Ulu	39	20
	Iban	51	26
	Melanau	12	6
	Bidayuh	8	4
	Malay	34	18
	Chinese	32	16
Monthly income	None of above	18	10
	RM500 - RM2,000	71	37
	RM2,001 – RM5,000	93	48
	RM5,001 – RM10,000	22	11
RM10,001–RM20,000	8	4	

A monthly family income of between RM 2,001 and RM 5,000 was the income level reported by the largest group of respondents (48%). Meanwhile, 26% of the respondents were Iban, 20% were Orang Ulu and 18% were Malay. Before starting the next section, two questions needed to be answered: “Have you had experience of wearing or buying traditional or ethnic clothing/wear?” and “Are you interested in wearing or buying traditional or ethnic clothing/wear?”. If a respondent answered “Yes”, they could continue the questionnaire; if they answered negatively, they were

unable to continue and thanked for their participation. Only 158 respondents (81%) chose “Yes”, meaning they could continue to respond as this would enable the collection of accurate information.

Analysis of variance was used to test the study hypotheses. Reliability coefficients indicated appropriate internal consistency for traditional design ($\alpha=0.76$), transformative design ($\alpha=0.72$), pattern and motif design ($\alpha=0.79$), multi-material design ($\alpha=0.72$) and decorative design ($\alpha=0.77$), which were significant at the level of 0.001. The factor loading and average variance eliminated (AVE) values were both larger than 0.50, having been evaluated for their validity. The factor loading values of their respective variables were high. A loading factor of more than 0.50 is generally classified as a “strong” item. Secondly, the AVE for the five measures was more significant than 0.5, with variable-level convergent validity.

As Table 5 shows, two criteria had a significant impact on willingness to purchase transformative ethnic ready-to-wear (RTW) in this study. The greater the β -value, the greater the impact of a predictor-independent variable on the dependent variable. The overall findings suggest that the measurement model is generally reliable and valid, providing a solid foundation for the study's exploration of consumer preferences in traditional wear designs.

In conclusion, the assessment of variables related to consumer preferences for traditional wear designs reveals a generally positive view of the measurement model's reliability and validity. It is noteworthy that the incorporation of ornamental elements, embellishments or adornments in the aesthetic composition of ethnic wear enhances the visual appeal and artistic value of the clothing, influencing the purchase of ethnic wear. Conversely, the incorporation of different types of fabrics and materials does not impact the desire to possess such clothing. Overall, these findings suggest a solid foundation for the study, indicating that the measurement model effectively captures the nuances of consumer preferences in the realm of traditional wear designs.

Table 5. The empirical results of reliability and validity (N=168)

Variables	Factor loading (≥ 0.7)	α (≥ 0.7)	CR (≥ 0.7)	AVE (≥ 0.5)
Traditional Design		0.76	0.72	0.63
You often buy clothing that maintains the old design.	0.82			
You feel to buy clothing that the old design is still maintained.	0.73			
You are someone who knows the old motif and pattern design when buying clothing.	0.75			
Transformative Design		0.72	0.74	0.65
You often buy unusual traditional clothing that has never been seen before.	0.76			
You like to buy eccentric traditional clothing rather than simple ones.	0.73			
You find seemingly unusual traditional clothing attractive.	0.71			
the ethnic orang-ulu clothing seems will be a good option to buy and wear as a traditional wear.	0.78			
the ethnic orang-ulu clothing is more eye-catching than the existing clothing in the market.	0.71			
Pattern and Motif Design		0.79	0.84	0.64

You like to buy clothing that has ethnic patterns.	0.81			
You prefer patterned clothing with a simple design.	0.88			
You find buying traditional clothing with original patterns and unique patterns attractive.	0.75			
You feel that traditional clothing that has patterns in every detail is highly valued to buy.	0.82			
You prefer to buy decorative ethnic motifs as shown in the ethnic orang-ulu dress rather than the printed version.	0.78			
Multi-Material Design		0.72	0.81	0.61
You like to buy traditional clothing that uses good quality multi-materials and fabrics.	0.73			
You often buy traditional clothing with multiple different colours depending on the fabric.	0.70			
You find a design created via a combination of fabrics attractive.	0.75			
Many traditional clothing that you choose to wear use a variety of materials.	0.71			
Decorative Design		0.77	0.81	0.68
You prefer to buy not printed traditional clothes.	0.87			
You often buy traditional clothing with an emblem.	0.91			
You prefer to buy traditional clothing with multiple decorations over simple designs.	0.72			
The traditional clothing you buy is often decorated.	0.79			
You prefer to buy artisanal ethnic orang-ulu dresses instead of printed ones on the market.	0.75			

Table 6 shows that the β value of transformative design had the highest coefficient value, 0.45, concerning the willingness to buy transformative ethnic RTW. All the hypotheses were supported; however, multi-material and decorative design had very small impacts on the decision to purchase ethnic RTW clothing. Therefore, the following variables had positive associations with the willingness to buy transformative ethnic RTW clothing: traditional design (H_1), transformative design (H_2), pattern and motif design (H_3), multi-material design (H_4) and decorative design (H_5). The results of the hypotheses testing are summarised in Table 6. In summary, the results provide support for the influence of traditional, transformative and motif designs on the willingness to purchase transformative or contemporary ethnic RTW clothing, with varying effect sizes. While multi-material and decorative designs exhibit smaller effects, they still show some influence on consumers' willingness to engage in transformative ethnic RTW purchases. These findings contribute valuable insights to the understanding of consumer behaviour in the context of ethnic RTW fashion.

Table 6. Results of hypotheses testing, $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.000^{***}$

Hypothesis	f^2	Effect	β	S. E	t value	Decision
H1: Traditional design \rightarrow Willingness to buy transformative ethnic RTW	0.54	Large	0.37	0.11	5.11	**
H2: Transformative design \rightarrow Willingness to buy transformative ethnic RTW	0.56	Large	0.44	0.08	7.35	***
H3: Pattern and motif design \rightarrow Willingness to buy transformative ethnic RTW	0.23	Medium	0.24	0.08	3.22	**
H4: Multi-material design \rightarrow Willingness to buy transformative ethnic RTW	0.08	small	0.13	0.14	1.18	*
H5: Decorative design \rightarrow Willingness to buy transformative ethnic RTW	0.16	small	0.18	0.12	1.46	*

The prominence of traditional design suggests a deep-seated affinity for heritage and conventional aesthetics, while transformative design highlights the allure of novelty and innovation. Additionally, the significance of pattern and motif designs underscores the importance of intricate and culturally resonant detailing in influencing purchasing decisions. However, the nuanced findings on multi-material and decorative designs require further exploration. Although these factors exhibit smaller effect sizes, their influence on consumers' willingness to engage in transformative ethnic RTW purchases remains noteworthy. For multi-material design, the marginal significance suggests that while the impact may be subtle, the combination of different fabrics and materials still plays a discernible role in shaping consumer attitudes. Decorative design, despite its smaller effect, implies that ornamental elements and embellishments contribute to the overall appeal, albeit to a lesser extent.

Exploring the interplay between material quality, design intricacies and cultural symbolism within these categories may uncover more nuanced patterns in consumer preferences. Additionally, considering demographic variables such as age, cultural background and fashion consciousness may help tailor design strategies to specific target audiences. Moreover, examining the potential synergies or conflicts between different design elements could deepen our understanding of how these factors collectively contribute to the appeal of transformative ethnic RTW clothing. In suggesting avenues for future research, delving into the specific attributes and characteristics of multi-material and decorative designs that resonate with consumers could offer valuable insights. Furthermore, investigating the role of marketing and branding strategies in amplifying the perceived value of multi-material and decorative designs could provide actionable insights for industry practitioners. In conclusion, the current study provides a robust foundation for understanding the influence of design factors on consumer behaviour in the ethnic RTW fashion market. However, future research endeavours should aim to unravel the intricacies of multi-material and decorative designs, considering both their individual and collective impact, to offer more nuanced and actionable insights for designers, marketers and retailers in the dynamic landscape of ethnic RTW fashion.

This study is explicitly designed to address the transformative aspects of ethnic wear, specifically concentrating on diverse appearances rather than quantifying the number of designs. The primary objective is the application of transformative design principles, specifically employing orang ulu motifs, to assess their alignment with contemporary trends and their resonance with the preferences of the new generation. It is essential to emphasize that the study's scope intentionally omits a comprehensive enumeration of designs to focus on the dynamic nature and stylistic variations within ethnic wear. However, in response to feedback and inquiries, the author has clarified that the study's scope holds the potential for extension to encompass other design elements within ethnic wear, reflecting a commitment to further exploration and inclusivity in future research endeavours.

4. Discussion and Conclusion

The focus of this paper was the growing concern about the preservation of cultural material heritage among Malaysian people, especially the Orang Ulu people in Sarawak State. Transformative design is one popular solution among the new generation, so a series of transformative Orang Ulu ethnic wear was investigated and developed before

its application among ordinary people, artisans, designers and business owners was evaluated. The research aimed to explore how a diverse group of participants perceived artisanal contemporary and transformative ethnic Orang Ulu dress. The methodology involved interviews, coding and microanalysis of responses.

The participants provided valuable insights into the positive and negative aspects of the dress, highlighting various dimensions such as cultural sensitivity, collaboration with local artisans, sustainability and market considerations. Moreover, this study provides useful information on the factors and issues affecting transformative ethnic wear from the design stage to the evaluation of SME-made transformative ethnic wear products in Sarawak, Malaysia. Understanding the consumer-oriented experiences of artisans, designers, consumers and SME owners would facilitate the planning of adequate strategies addressing consumers' needs, expectations and future opportunities.

The positive feedback highlighted the commendable integration of Orang Ulu motifs into the artisanal collection, which demonstrated a deep respect for traditional craftsmanship. Participants appreciated the innovative blend of traditional elements with contemporary design, emphasising the cultural richness and fashion-forward approach. The emphasis on sustainability through collaboration with local artisans was also well-received, aligning with current consumer trends and contributing positively to the brand's image, an outcome that aligned with the findings of Miyauchi et al. (2023). The results of the current study revealed the overall positive reactions of experts in developing cultural identity, whether they were craftsmen, designers, entrepreneurs or academic experts. They tended to support this idea in the local market, but certain concerns remained. The collection of Orang Ulu ethnic wear demonstrated a deep respect for traditional craftsmanship. The term 'artisanal collection' was used as it was fully hand-made and involved collaboration with local artisans. Over 55 hours were required to develop the motifs and then design, make and sew the items. The data from the interview sessions with eight experts demonstrated positive responses, although the specific details of the collaboration process and the involvement of craftsmen could have been communicated more transparently.

Based on the interview's results, while craftsmen express deep respect for traditional craftsmanship and acknowledge the transformative impact of collaboration, concerns about transparency and the long-term sustainability of such partnerships are evident. To address these issues, there is a call for more specific details on the collaboration process which is in line with Kawane et al. (2022). The potential benefits, such as global exposure and economic empowerment, are recognized, emphasizing the need for transparency and specificity in the collaboration with craftsmen. Moreover, designers bring to light the challenge of balancing cultural essence with modern influences and highlight missed opportunities to explore the full richness of tradition. The positive aspects include innovative and transformative collections with broad market appeal, attributed to the incorporation of Orang Ulu motifs. Hence, it is required for a deeper understanding of cultural nuances and a more comprehensive exploration of lesser-known motifs to underscore the importance of authenticity in creative processes, especially in unique ethnicities. On the positive side, the emphasis on versatility, adaptability and sustainability in the collection is highlighted which is in line with the findings of Rodríguez-Espíndola et al. (2022). Overall, collaboration with local artisans is seen as a positive contribution to the brand's image, aligning with current consumer trends. Entrepreneurs point out drawbacks such as the lack of pricing

strategy and limited options, suggesting the need for in-depth market research to gauge consumer preferences.

Therefore, the results show that certain factors are essential to developing a trendy artisanal ethnic wear collection that could build a bridge between the old and new generations, including preserving the tradition, creating a transformative and creative design based on the trends; developing patterns and motif designs that retain the cultural identity and carefully choosing the materials, fabrics and decorative design. However, the concerns expressed regarding potential issues of cultural appropriation necessitate meticulous deliberation. Respondents emphasised the need to ensure that such a collection would respect the cultural setting while avoiding the commercialisation or misuse of Orang Ulu symbols. Recommendations were made to encourage more discerning involvement through established standards and procedures in the fashion business, focusing on power dynamics, stereotypes and consumerism, as corroborated by the research conducted by Nawawi and Legino (2016). Some participants conveyed favourable responses to the partnership with local craftspeople, valuing the genuineness it imparted to the collection. Nevertheless, increased transparency was demanded in conveying the specifics of the partnership process and the artisans' participation.

Furthermore, a more thorough investigation was suggested of less familiar patterns, while a recommendation was made to critically assess how the collection might influence cultural customs. Also obtained in the interviews were views on the marketability of the artisanal ethnic Orang Ulu outfit. Although the concept was generally accepted, some issues remained about the necessity of transparent collaboration, as well as the need to, firstly, conduct market studies before adding ethnic clothing and secondly, implement a meticulously planned price strategy to maintain a balance between exclusivity and affordability. The study demonstrates that incorporating transformative design into traditional motifs significantly influenced the inclination to purchase transformative ethnic RTW garments. Conversely, the use of multi-material and decorative design had minimal effects on the purchasing of such clothing.

As previously stated, this study focuses on the conservation of Orang Ulu material culture (such as motif design in this study) and asks for public opinion on clothing that is conscientiously made by SMEs. The main goal is to avoid mixing up marketing goals with benefits specific to small and medium-sized enterprises in the discussion, which can be explored in future studies. Hence, this distinction is emphasized in the following suggestions for future research projects. It is strongly advised to carry out an extensive investigation to evaluate the cultural influence of Orang Ulu motif preservation in ethnic clothing made by SMEs. Conducting comparative case studies involving other ethnic regions globally may help to preserve the cultural heritage while adapting to modern fashion trends. Identifying common themes, successful strategies and unique cultural aspects that contribute to the global discourse on cultural preservation in fashion is highly recommended to discover. Furthermore, it may be emphasized for future research how younger generations see and interact with these handcrafted garments, guaranteeing the continuation of cultural traditions and legacy.

Initially, it is important to note that the limited number of participants in the consumer survey may impede the applicability of the results to a more extensive populace. Furthermore, the research places its complete emphasis on consumer behaviour regarding transformative ethnic apparel produced by SMEs, disregarding the

viewpoints of other participants involved in the manufacturing process. The results obtained in Sarawak, Malaysia, do not apply to other cultural or regional contexts due to their geographical specificity. Furthermore, there appears to be a dearth of exhaustive investigation regarding the collaborative strategies that SMEs, local communities and cultural authorities employ. The constraints indicate that the study's results should not be generalized beyond their scope and context.

In conclusion, the research findings provide a nuanced understanding of the perceptions surrounding the artisanal transformative ethnic Orang Ulu dress. The positive feedback underscored the potential of collaboration in supporting local designers, artists and entrepreneurs. The emphasis on cultural sensitivity, sustainability and innovative design integration contributed to the appeal of the dress. Finally, recommendations are offered to policymakers, artisans and entrepreneurs on sustaining this delicate balance in the long term. However, the study also highlights areas that need attention and improvement. Addressing concerns about cultural appropriation, ensuring transparent collaboration and conducting a thorough market analysis of pricing strategies are all crucial to enhancing the success and acceptance of such artisanal collections. The constructive feedback of the participants forms valuable input for future research and will inform refinements to the artisanal ethnic Orang Ulu dress, emphasising the importance of balancing tradition with transformative design in the fashion industry.

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