





Development of Weaving Craft Motif Designs as a Diversification Attempt for Nias Local Souvenir Products

Kezia Clarissa Langi¹^a, Dian Widiawati²^b, Setiawan Sabana²^c
and Tusita Mettadevi Jayamangalani Suprpto²^d

¹Doctoral Program of Art and Design, Bandung Institute of Technology, Ganesha Street No. 10, Bandung, Indonesia

²Faculty of Art and Design, Bandung Institute of Technology, Ganesha Street No. 10, Bandung 40132, Indonesia

Keywords: Craft Industry, Motif, Nias Traditional Weaving, Product Development.

Abstract: This paper presents initial findings from an ongoing research project that explores possibilities for Nias traditional weaving motif exploration. One of Nias hidden local wisdom is the culture of Nias women and their weaving activities. Traditionally, Nias weaving is divided into three types of weaving, *Nila'e-lae* (plain weaving), *Nisora* (combination of several motifs with colors), and *Ni'otarawa* (see-through weaving). Although the technique of traditional Nias weaving is local knowledge, the exploration of the traditional motifs is limited. This study proposes to develop woven design innovation so that it can be used as a reference in forming products that can be resold by the community as Nias local souvenirs. This research uses a visual ethnographic approach. The data collection stage was carried out by collecting references on weaves, materials, including small and medium industry issues regarding the manufacture and function of Nias traditional weaving in Gunungsitoli. At this stage, an analysis of the results of the information is carried out, which becomes the basis for the exploration of woven designs. Next, this paper presents four new product design manual with efficient working techniques. The current study can contribute to uncovering the hidden potential of Nias traditional weaving for sustainable craft design.

1 INTRODUCTION


This study focuses on exploring Nias traditional woven craft design as a diversification attempt for souvenir products. Traditional craft is a representation of how humans interact with their surroundings in historical, cultural, and social contexts (Tung, 2012). Traditional craft reflects a civilization that improves the culture's knowledge, technique, pattern, material, and color. Preserving and promoting traditional crafts is a way to sustain tradition while improving economic income (Elomba & Yun, 2018).


According to the Indonesian Agency for Creative Economy & Central Board of Statistics (Badan Ekonomi Kreatif & Badan Pusat Statistik, 2017) traditional craft contributed to 15,70% of the total contribution of the creative industry sectors.


Traditional craft industries that produce souvenir products have a higher opportunity to attract local and global markets through the tourism industry (Zulaikha & Brereton, 2011).


Domestic and international tourist travels to Nias in order to experience the cultural and natural tourism destination. Nias is known for its stone jumping activity and surfing spot (Langi et al., 2019). Souvenirs are tangible, sentimental, and often cherished objects that are reminders of a memorable experience of a destination (Swanson & Timothy, 2012). Before heading back to their place of origin, tourists tend to bought local souvenirs as a memory.

Previous research by Littrell et al. (1993) categorizes the criteria used by tourists to define the authenticity of a local souvenir. The category included a craft's uniqueness, workmanship, aesthetics and use, cultural and historical integrity, and genuineness.

^a <https://orcid.org/0000-0002-4668-3834>

^b <https://orcid.org/0000-0003-3286-3719>

^c <https://orcid.org/0000-0003-4028-3183>

^d <https://orcid.org/0000-0002-0122-6488>

In addition, Paraskevaïdis & Andriotis (2015) conclude that the value of souvenirs as a commodity is use-value, exchange-value, sign-value, and spiritual-value.

The products of the weaving technique in Nias are mats and *bolanafo*. This study is based on Nias traditional see-through weaving called *Ni'otarawa* in *bolanafo* and *Nisora*, weaving with a combination of several motifs with colors). The word *bolanafo* is formed from the words *bola* and *afo*. *Bola* means 'place' and *afo* means five ingredients consisting of betel leaf (*tawuo*), lime betel powder (*betua*), gambier leaf (*gambe*), tobacco (*bago*), and areca nut (*fino*) (Telaumbanua, 2019; D. Waoma, personal communication, April 28, 2021). *Bolanafo* means *kampih* betel, or a place to store betel.

Bolanafo is often used at welcoming ceremonies or weddings. Presenting *afo* in *Bolanafo* for Nias culture shows a piety attitude because it presents something not directly, but with a container (Harefa & Ginting, 2018). *Bolanafo* itself has become one of the 96 new Intangible Inheritances established and announced by the government through the Ministry of Education and Culture (Kemendikbud) (Direktorat Warisan dan Diplomasi Budaya, 2011). This fact shows how important the process of weaving is to become a traditional legacy from Nias and the sustainability to preserve it.

Weaving techniques should be a skill that is passed on to the younger generation, but with a shift in cultural values, weaving tools and techniques are slowly disappearing. The extensive weaving process makes woven products less desirable. In particular, the profile of *bolanafo*, which is part of Indonesia's Tangible Heritage, if its existence and preservation are not carried out, this recognition can be revoked. Weaving traditional Nias products need to be developed visually, by design, and by necessity. This fact provides an opportunity for this research with the benefit of being a souvenir or typical Nias souvenir made by the Nias Small and Medium Industry.

2 METHODS (AND MATERIALS)

This study proposes to develop woven design innovation so that it can be used as a reference in forming products that can be resold by the community as Nias local souvenirs.

This research aims to provide answers to the following questions:

- a. How to explore or develop a woven structure that departs from local potential, specifically

the Nias woven design to produce a diverse and attractive appearance?

- b. How to apply the results of the development of the woven design into the design of Nias souvenirs or souvenirs that can attract market interest?

To answer these questions, this research uses a literature review and visual exploration. This research collaborates with Nias Heritage and Empowerment Foundation (*Yayasan Badan Pemberdayaan dan Warisan Nias*). Online interview to collect references on traditional weaving, materials, and small and medium industry issues regarding the manufacture and function of *Bolanafo*. Literature review was done by collecting research articles regarding the Nias traditional weaving.

Visual exploration was done by making visual design innovations and the function of weaving by considering several aspects, among others; aspects of materials and equipment, processes, shapes and sizes, aesthetic elements, philosophical values or meanings and ergonomic aspects based on the results of analysis and communication with small and medium industries.

3 RESULTS AND DISCUSSION

3.1 Nias and Its Weaving Culture

Nias is a small island in western Indonesia that was once famous for its unique social structure that emphasises the culture of war and manufacturing weapons (spears, sabres, shields, and war armor) compared to agricultural and farming production tools (Langi et al., 2019). Nias is a society that adheres to a patriarchal system and upholds customs.

The construction of Nias patriarchal culture has created the inequality status between men and women (Ridwan et al., 2021). Despite adhering to a patriarchal system, Nias men have a principle of life based on the philosophy of "our self-respect will fall if we cannot protect our women" (Sonjaya, 2010 in Didipu, 2017). This protection was perceived since the 1800s when various anthropologists came to document Nias flora, fauna, and culture when at that time Nias women could not be photographed or talked to by foreigners (Puccioni, 2016). This protection can be one of the reasons why the culture of weaving and Nias women seems to be a forgotten history. Until today less than 10 villages in Nias is still performing this traditional weaving (D. Waoma, personal communication, April 28, 2021).

The date of the invention of the weaving method is unknown, but the myth about the origin of the Nias people (*ono Niha*) it shows that their ancestors were descended from the sky with all knowledge and expertise in various fields of life, including the activities of weaving and making containers (Hämmerle, 2015). The cultural value of Nias requires women to have a weaving craft made of woven dried *keleömö* leaves (*Eleocharis dulcis*), which is a type of swamp grass; and dried *sinasa* leaves (*Pandanus tectorius*), which is a type of pandan thorn leaves.

The products of the weaving technique in Nias are mats and *bolanafo*. The weaving technique in the form of a *bolanafo* product has a pragmatic and magical purpose. Pragmatic with the aim of being a container for *afo* (five traditional ingredients) and magic with the aim of being a container in the welcoming ceremony. So it can be concluded that the tradition of making *bolanafo* has existed in tandem with the history of Nias life.



Figure 1: *Bolanafo* with *Ni'otarawa* motif.

3.2 Weaving Motifs, Meaning, and Design

There are three types of *bolanafo* weaving, *Nila'e-lae* (plain weaving), *Nisora* (combination of several motifs with colors), and *Ni'otarawa* (see-through weaving) (D. Waoma, personal communication, April 28, 2021).

Bolanafo carries a story of life and nature within its motifs as seen in Table 1. There are seven basic *bolanafo* motifs: *Ni'ohulayo*, *Ni'obahogö*, *Ni'obakola*, *Ni'ola'a Marugadi*, *Ni'otawuyu Nangi*, *Ni'obawandoru*, *Ni'omadala*, and *Ni'otarawa*.

Ni'ohulayo motif is a triangle shape back and forth which has the meaning of 'two being one' and 'one being two'. This pattern is used as a wedding offering presented to the mother of the bride. The offering is called *böligölö nina*, which is the traditional marriage proposal offering. This pattern is mainly used by commoners. The design of this motif mainly frames another centered motif.

Ni'obahogö derived from the word *baho*. There are two meanings of the word "*baho*," which is a very deep ravine or hole in the ground. Second, something that is piled high up like "*hola-hola galitö*," a burning fire. The profound meaning of the *Ni'obahogö* motif is inconvenience and happiness. The motif characteristics are similar to the plaid pattern.

Ni'obakola motif is inspired by the shape of a well that resembles a pond. In the well, a fish is nurtured and named *ia kola yana*. *Bolanafo* using this pattern is given as an offering to the bride and groom's uncle. This pattern consists of several rectangle shapes that are placed repeatedly.

Ni'ola'a Marugadi motif is a depiction of *Batu Maru*, which resembles an altar. Someone who is going to Hinako first makes an offering to the *Batu Maru*. The shape of this motif has symmetrical dots on each corner, placed diagonally and repeatedly.

Ni'otawuyu Nangi is inspired by the intimacy of husband and wife. This pattern is considered romantic. It is the expression of the fusion of love is very visible in the scattered, mingled, and some scattered motifs like the points of the compass. The pattern is similar to *Ni'obakola* with a slight difference in size.

Ni'obawandoru motif is based on the word '*bowo*,' which means flowers and '*toru*,' describing an eggplant. Many Nias women plant eggplant trees in their yard. The small purple eggplant flower is also the inspiration for this motif. The motif has a geometrical shape with small repetition.

Ni'omadala motif means the big star. The motif was inspired by the strong light of the big star sparkling in the sky. Looking up at the clear starry sky is *Ono Niha's* romantic habit. The motif has a geometric shape in form of stars. The big star is placed in the middle and smaller stars framed the *bolanafo*.

Ni'otarawa motif is used for royalties. This pattern is made with see-through weaving.

Table 1: The Patterns of Nias *Bolanafo* weaving based on its name, pattern, meaning, usage, design, and digitalization (Pattern images are photographed with courtesy of Nias Heritage Museum).

Name	<i>Ni'ohulayo</i>	<i>Ni'obahogö</i>	<i>Ni'obakola</i>	<i>Ni'ola'a Marugadi</i>
Pattern				
Meaning	'two being one' and 'one being two'	Inconvenience and hapiness	Pond fish	Depiction of Batu Maru, which resembles an altar.
Usage	Offering for the mother of the bride	Container to store <i>afo</i>	Offering for the uncle of the bride and groom	Container to store <i>afo</i>
Design	Framing and centred	Diagonal repetition	Repetition with diagonal pattern and background	Repetition with diagonal pattern and background
Digitalization				
Name	<i>Ni'otawuyu Nangi</i>	<i>Ni'obawandoru</i>	<i>Ni'omadala</i>	<i>Ni'otarawa</i>
Pattern				
Meaning	Points of the compass	Eggplant	The great starlight shone brightly in the sky	Royal design
Usage	Container to store <i>afo</i>	Container to store <i>afo</i>	Container to store <i>afo</i>	Offering for royalties
Design	Diagonal repetition	Straight repetition with diagonal background	Framing and centered	Repetition and straight
Digitalization				

3.3 Development of Weaving Motifs

There are seven basic patterns analysed in this research in Table 1. Developing weaving motif design exploration is done digitally.

The weaving technique has symmetrical, geometric, and pixel-like characteristics. Therefore, a millimeter block is made to facilitate the process of creating the motif.

Digitally, previously available motif mappings are placed diagonally and vertically according to traditional *bolanafo* templates.

Design 1 uses the *Ni'ohulayo* and *Ni'obakola* motifs. The *Ni'ohulayo* motif is placed mirroring one another with a *Ni'obakola* motif in the middle. This represents the two offerings for the bride and groom's family. Emphasizing the idea of 'two become one' and 'one became two.' This design uses 100% Sinasa (*Pandanus tectorius*) leaf. The first alternative uses the combination of red, and beige color with a green accent, and the second alternative uses a combination of full-plain weaving and full-weaving with pattern. This design is a table runner product sold as a family gift during special

occasions such as mother’s day and birthday.


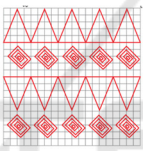




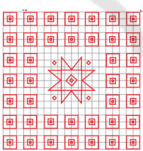




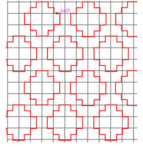


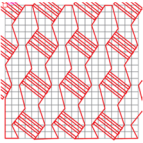

Design 2 uses the *Ni’omadala and Ni’obawandoru* motifs. The eggplant and big star that shines in Nias is a representation of things Nias society finds joy in. This meaning is transformed placemat and table runner set as a humble and joyous gesture to receive guests. Made with 100% Sinasa (*Pandanus tectorius*) leaf. The first alternative uses the combination of red and beige color with green accent and a combination of full-plain weaving and full-weaving with pattern technique.

Design 3 uses an exploration of *Ni’otarawa* technique. The original design is inspired by an old *Bolanafo* bag seen in Tropenmuseum, Netherlands. The new bag design is created with 45% Sinasa (*Pandanus tectorius*) leaf, 45% baby canvas, and 10%

synthetic leather. The combination of light brown, beige, and brown color portrays an earthy color and the combination of new material and see-through weaving is a fusion of modern and traditional elements. This bag can be used as a gift or for personal use as an exclusive fashion accessory.

Design 4 is also an exploration of the *Ni’otarawa* technique. The typical motif is created with smaller gaps to appear more full. This helps the craftsman to create more detail for the product. Before, this technique is used as an offering for royalties. Using this same concept, this pouch uses 80% Sinasa (*Pandanus tectorius*) leaf and 20% Suede material to give a more exclusive feel. Moreover the combination of black, gold, and beige color gives Design 4 a more elevated look.

Table 2: Design development for diversification attempt for Nias Local Souvenir Products.

	Pattern	Previous Usage	Digitalization	Material	Shape and Size	Aesthetic Element	New Meaning
Design 1		Offering for the mother of the bride		100% Sinasa (<i>Pandanus tectorius</i>) leaf		Combination of red, and beige color with a green accent. Combination of full-plain weaving and full-weaving with pattern	Family gift during special occasion: Mother’s day and birthday
		Offering for the uncle of the bride and groom					
Design 2		Container to store <i>afo</i>		100% Sinasa (<i>Pandanus tectorius</i>) leaf		Combination of red and beige color with a green accent. Combination of full-plain weaving and full-weaving with pattern	Gift or personal use as a placemat and table runner set as a humble gesture to receive guest
		Container to store <i>afo</i>					
Design 3		Offering for royalties		45% Sinasa (<i>Pandanus tectorius</i>) leaf 45% Baby Canvas 10% Synthetic leather		Combination of light brown, beige, and brown color. Combination of new material and see-through weaving	Gift or personal use as shoulder bag as an exclusive fashion accessory
Design 4		Offering for royalties		80% Sinasa (<i>Pandanus tectorius</i>) leaf 20% Suede		Combination of black, gold, and beige color. Combination of new material and see-through weaving	Gift or personal use as small pouch as an exclusive fashion accessory

4 CONCLUSIONS

This paper develops Nias traditional woven craft design as a diversification attempt for souvenir products.

Woven craft in form of *Bolanafo* contains a special story through its motif. Conserving and developing its motif for modern use is a way to sustain the traditional craft.

Woven craft in form of *Bolanafo* contains a special story through its motif. Conserving and developing its motif for modern use is a way to sustain the traditional craft. *Bolanafo* has basic patterns, namely the *Ni'ohulayo*, *Ni'obahogö*, *Ni'obakola*, *Ni'ola'a Marugadi*, *Ni'otawuyu Nangi*, *Ni'obawandoru*, *Ni'omadala*, and *Ni'otarawa*. Based on its traditional *bolanafo*, there are two templates for creating the design: framed and centered, and diagonal-vertical repetitive pattern. Knowing these templates is a fundamental element to develop modern *bolanafo* design. The simple and known motif is created to encourage the craftsman on creating new designs.

For future work, this paper suggested a collaboration between the craftsman with a participatory approach. This research is basic knowledge for the craftsman to develop traditional design digitally.

ACKNOWLEDGEMENTS

We thank Mrs. Dina Waoma as the chairman of Nias Heritage and Empowerment Foundation and its community for the help of identification of Nias traditional weaving. This work was supported by *Program Pengabdian Masyarakat dan Inovasi PPMI 2021* Bandung Institute of Technology.

REFERENCES

- Badan Ekonomi Kreatif & Badan Pusat Statistik. (2017). *Buku Data Statistik dan Hasil Survei Ekonomi Kreatif*. Direktorat Riset dan Pengembangan Ekonomi Kreatif Deputi Riset Edukasi dan Pengembangan Badan Ekonomi Kreatif.
- Didipu, H. (2017). Representasi Nilai-Nilai Budaya Masyarakat Suku Nias Dalam Novel *Manusia Langit Karya J.A. Sonjayal* (Kajian Antropologi Sastra). *Jurnal Susastra: Jurnal Ilmu Susastra dan Ilmu Budaya*, 6, 17.
- Direktorat Warisan dan Diplomasi Budaya. (2011, January 1). *Bola Nafu. Warisan Budaya Takbenda Indonesia*. <https://warisanbudaya.kemdikbud.go.id/?newdetail&detailCatat=1695>
- Elomba, M. N., & Yun, H. J. (2018). Souvenir Authenticity: The Perspectives of Local and Foreign Tourists. *Tourism Planning & Development*, 15(2), 103–117. <https://doi.org/10.1080/21568316.2017.1303537>
- Hämmerle, J. M. (2015). *Asal Usul Masyarakat Nias: Yayasan Pusaka Nias*.
- Harefa, D. K., & Ginting, I. (2018). Associative Meaning Of Hendi-Hendi In Giving Afo In Nias Wedding Ceremony. *The Episteme Journal of Linguistics and Literature*, 4(3), 1–24.
- Langi, K. C., Sabana, S., & Ahmad, H. A. (2019). Kedalaman Makna Baju Perang Nias Peluangnya Di Masa Depan Peluangnya Di Masa Depan. In R. A. Palit (Ed.), *Budaya dan Kearifan Lokal untuk Masa Depan" ANtara Tantangan dan Peluang di Era Disrupsi* (pp. 39–53). Fakultas Seni Rupa Desain Universitas Kristen Maranatha.
- Langi, K. C., Sabana, S., & Ahmad, H. A. (2019). Nias Warrior's Armor and its Fundamental Values. *CONVASH 2019: Proceedings of the 1st Conference of Visual Art, Design, and Social Humanities*, 28–34. <https://doi.org/10.4108/eai.2-11-2019.2294780>
- Littrell, M. A., Anderson, L. F., & Brown, P. J. (1993). What makes a craft souvenir authentic? *Annals of Tourism Research*, 20(1), 197–215. [https://doi.org/10.1016/0160-7383\(93\)90118-M](https://doi.org/10.1016/0160-7383(93)90118-M)
- Paraskevaidis, P., & Andriotis, K. (2015). Values of souvenirs as commodities. *Tourism Management*, 48, 1–10. <https://doi.org/10.1016/j.tourman.2014.10.014>
- Puccioni, V. (2016). *Tanah Para Pendekar: Petualangan Elio Mondigliani di Nias Selatah Tahun 1886* (p. 376). PT Gramedia Pustaka Utama.
- Ridwan, M., Suharyanto, A., Gulo, Y., Hulu, F., Ramlan, & Marzuki, D. I. (2021). Distinction culture of women existing in Nias. *Journal of Human Behavior in the Social Environment*, 1–12. <https://doi.org/10.1080/10911359.2020.1829240>
- Swanson, K. K., & Timothy, D. J. (2012). Souvenirs: Icons of meaning, commercialization and commoditization. *Tourism Management*, 33(3), 489–499. <https://doi.org/10.1016/j.tourman.2011.10.007>
- Telaumbanua, T. (2019). Kaum Milenial & Kebudayaan Nias: Di Persimpangan Jalan. *Jurnal Sundermann*, 1(1), 1–16. <https://doi.org/10.36588/sundermann.v1i1.19>
- Tung, F.-W. (2012). Exploring Craft-Design Collaborations in Revitalizing a Local Craft. *Designing and Developing the Built Environment for Sustainable Wellbeing*, 14.
- Waoma, D. (2021, April 28). *Nias Traditional Weaving [Email]*.
- Zulaikha, E., & Brereton, M. (2011). Innovation strategies for developing the traditional souvenir craft industry. *Design, Practice, People and Systems*, 53–58.