

Unity, Complexity, and Intensity in Upcycled Paper Craft: Aesthetic Value at Gegaen Lima Craft, Sudaji Village, Bali

Muh. Efendi ^{a,1,*}, Luh Suartini ^{b,2}, I Wayan Sudiarta ^{c,3}

^{a,b,c} Department of Art and Design, Faculty of Language and Arts, Universitas Pendidikan Ganesha, Jalan Udayana 11, Singaraja, 81116, Bali, Indonesia

¹ efendi@student.undiksha.ac.id*; ² luh.suartini@undiksha.ac.id; ³ wayan.sudiarta@undiksha.ac.id

ORCID: ¹ 0000-0000-0000-0000; ² 0000-0002-4457-8512; ³ 0000-0000-0000-0000

* Corresponding author

Article history: Received: 25 June 2025 | Revised: 17 August 2025 | Accepted: 17 October 2025 | Published: 1 December 2025

Article type: Research Article

DOI: [https://doi.org/ 10.33292/locus.v3i02.26](https://doi.org/10.33292/locus.v3i02.26)

ABSTRACT	KEYWORDS
Paper waste is among the most abundant and least valorised household residues in rural Bali, yet studies of Balinese upcycled craft have concentrated on bamboo, wood, and coconut materials, leaving paper-based practice largely undocumented and never examined as an aesthetic medium. This article examines how aesthetic value is constituted in upcycled paper craft at Gegaen Lima Craft, a household micro-enterprise in Sudaji Village, Buleleng Regency, established in 2015, which converts discarded school textbooks into fifteen types of household, ceremonial, and accessory products through a coiling-and-weaving technique. The study follows a descriptive qualitative design. Fieldwork at the enterprise combined participant observation of the production process, semi-structured interviews with the founder and the relatives and neighbouring producers who work with her, and systematic photographic documentation of the complete product range, which was analysed as an exhaustive corpus of sixteen documented items. Monroe Beardsley's criteria of unity, complexity, and intensity provide the analytical framework, applied first to each item and then comparatively across four functional categories. Aesthetic value in this craft is generated primarily through intensity rather than through applied ornament: because the coiled paper strand is the sole formal vocabulary available, distinction arises from precision of execution and from the disciplined repetition of a single element across differing forms. Complexity varies inversely with functional constraint, except in ceremonial vessels, where cultural significance prompts deliberate elaboration; unity follows from the constructive logic of coiling itself. Upcycled paper craft sustains local material culture not by imitating traditional media but by reproducing traditional object-types in a new material register.	aesthetic value Beardsley Buleleng paper waste upcycled craft  This is an open access article under the CC BY-SA 4.0 license.

How to cite: Efendi, M., Suartini, L., & Sudiarta, I. W. (2025). Unity, complexity, and intensity in upcycled paper craft: Aesthetic value at Gegaen Lima Craft, Sudaji Village, Bali. *Journal of Local Culture Study*, 3(2), 69–85. [https://doi.org/ 10.33292/locus.v3i02.26](https://doi.org/10.33292/locus.v3i02.26)

INTRODUCTION

Craft is a mode of cultural production in which manual skill transforms available material into objects that carry both use value and aesthetic value. In village economies, the material that is available is frequently the material that is discarded. The reprocessing of waste into craft objects therefore sits at the intersection of two concerns that are usually studied separately: environmental waste management on the one hand, and the continuity of local material culture on the other. In Buleleng Regency, both concerns are immediate. Village-level waste handling has become an object of policy and of community programmes in the district (Atmaja et al., 2021; Juliandi, 2022), while the surrounding landscape of materials has long been treated in local arts education as a resource for making rather than as a residue to be removed (Suartini & Supir, 2024). This article addresses that intersection through the case of paper-waste craft in Sudaji Village, Sawan District, Buleleng Regency, Bali.

The reprocessing of discarded material into objects of greater worth is what design scholarship terms upcycling, distinguished from recycling by the fact that value increases rather than degrades in the transformation. Braungart et al. (2007) framed the underlying principle as eco-effectiveness, arguing that residual material should be treated as nutrient for a further cycle of production rather than as loss to be minimised. Bridgens et al. (2018) developed the social dimension of this argument, showing that creative upcycling reconnects makers with materials and place and sustains communities of making, and Wegener (2016) situates upcycling within a vocabulary of creativity rather than of waste management. What this literature has established less clearly is how upcycled objects come to be judged good or beautiful, as distinct from resourceful or environmentally responsible. That is the question this article pursues.

Studies of upcycled craft in Bali and eastern Java have established that discarded and non-canonical materials can support both aesthetic production and community livelihood. Karuni et al. (2020) documented upcycle-based ceremonial craft in Kediri, Tabanan, showing that reused materials are accepted within ritual contexts when the resulting object retains the recognised form of the customary vessel, and Sudita (2014) reached a comparable conclusion for miniature *barong* made from used goods in a craft-education setting. Komariah (2021) analysed the combination of teak-wood waste and bamboo root at Flodista Bale Roso in Bondowoso, Setiawan et al. (2023) examined *songkok* made from coconut-palm sheath in Situbondo, and Nugraha et al. (2019) tested bamboo-fibre composites as a substitute medium for *sokasi* basketry; all three treat the residual or unconventional material as the source of a distinctive surface character rather than as a deficiency to be concealed.

Work on paper waste specifically has been oriented differently. Arfah (2017), Fatin et al. (2021), and Basyari et al. (2022) approach paper waste through recycling, product-development, and educational-media frameworks, while Gunarto et al. (2008) treat it as a construction input for papercrete panels. Nurcahya and Muksin (2024) come closer to craft proper in documenting the conversion of paper waste into traditional Bandung art objects, and Astuti (2012) and Widarma (2018) closer still, documenting newspaper-based bags and sandals in Sleman and paper craft in Bondalem, Buleleng. These last studies remain primarily descriptive inventories, however, and none applies an explicit aesthetic framework to the objects produced.

Two gaps follow from this literature. First, existing Balinese upcycled-craft scholarship concentrates on woody and fibrous materials — bamboo, teak, coconut, palm — whose material character is already close to that of the traditional media they replace; paper, which has no precedent in Balinese craft tradition and no inherent structural rigidity, has not been examined as an aesthetic medium in this region. Second, where paper craft has been documented, it has been catalogued rather than analysed: the question of how aesthetic quality is actually constituted in an object whose entire visible surface consists of one repeated element

has not been posed. The problem is analytically distinct from that faced in wood or bamboo craft, where grain, carving, and joinery provide multiple independent sources of visual interest. This article is the first to analyse a complete range of upcycled paper products in Bali as an aesthetic corpus, and the first to ask what resources for aesthetic differentiation remain available to a craft practice confined to a single-element material vocabulary.

The approach taken here treats a local cultural practice as an object with identifiable constituent elements that can be described and analysed systematically, an orientation that Sathotho (2022) applies to ritual performance in Nagari Salareh Aia and that Tama et al. (2024) extend to the transmission of cultural values through communal Batak Toba ceremony. Both studies argue that a local practice becomes transmissible to a supporting community precisely when its formal elements can be identified and articulated. The same logic is applied here to a craft practice: identifying how unity, complexity, and intensity are produced in paper-waste objects is a precondition for that practice being taught, evaluated, and sustained beyond its founder.

This study therefore aims to describe the technique and product range of paper-waste craft at Gegaen Lima Craft, Sudaji Village, and to analyse how aesthetic value is constituted across that range using Monroe Beardsley's criteria of unity, complexity, and intensity. Rather than presenting each product as an isolated case, the analysis groups products by functional category and compares how the three criteria are realised differently across categories, in order to identify which aesthetic resources are actually available to a craft practice working within a single-element material vocabulary.

METHOD

Research Design and Approach

This study uses a descriptive qualitative design, appropriate because the research question concerns how a quality — aesthetic value — is produced in a body of objects, and therefore requires close description of material and technique rather than measurement of variables (Sugiyono, 2017). The unit of analysis is the craft object: each product type produced by the enterprise is treated as a case whose visual character can be described and assessed against a common set of aesthetic criteria.

Aesthetic value is analysed using the three criteria proposed by Monroe Beardsley. Unity concerns the integration of the elements of a work such that each part supports the others and the whole reads as complete. Complexity concerns the presence of internal variety — differentiated elements, details, or contrasts — that gives the work its interest and prevents it from reducing to a single undifferentiated impression. Intensity concerns the presence of a strong, definite quality or character, such that the work registers as fully realised rather than as empty or inert (Beardsley, 1981; Dharsono, 2007, p. 63). The framework is brought to bear only after each item has been described independently in terms of form, construction, surface, colour, and function, so that description is not shaped in advance by the categories it will later be assessed against.

The framework is adopted with awareness of its limits. Beardsley presented the three criteria as broadly applicable across the arts, and later commentary has questioned that ambition: Goldman (2005) argues that the scheme is too austere to capture the range of considerations that bear on aesthetic judgement, while Wolterstorff (2005) reads intensity as the criterion that allows a work to escape blandness and therefore as doing more work than Beardsley acknowledged. Dickie (2005), tracing the origins of the scheme, situates it within a formalist inheritance that its later critics have largely abandoned (see also Levinson, 2003). These objections carry less weight for the present material than they do for painting or music. Craft objects of the kind studied here are evaluated by their makers and users in terms close to

Beardsley's own — whether the piece holds together, whether it is visually interesting, whether it is well made — and the scheme is retained for that reason, as a vocabulary adequate to the object rather than as a general theory of art.

Site, Period, and Participants

The research site is Gegaen Lima Craft, a micro, small, and medium enterprise located in Sudaji Village, Sawan District, Buleleng Regency, Bali. Fieldwork was conducted at the enterprise over [state the months and year of fieldwork] in [state the number] visits, each covering a working session in which production was under way.

Sampling was purposive rather than random. The sampling frame was defined as the complete range of product types in current production at the enterprise at the time of fieldwork, as enumerated by the founder; all fifteen types identified in that enumeration were included, so the corpus is exhaustive of the enterprise's output rather than a selection from it. Where a single product type is made in more than one form, as with the keychain, each distinct form was documented separately, yielding sixteen documented items.

Participants were selected by their role in production rather than by name. The principal informant was the founder of the enterprise, Luh Rusmiati, who developed the technique and who determines what counts as an acceptable finished piece. [State the number] further informants were interviewed: the relatives and neighbouring householders who carry out coiling and assembly when volume orders are received, selected on the criterion of having worked on at least one of the documented product types.

Data Collection

Data were collected through four techniques. Participant observation covered both the finished products and the production process, including the preparation of paper strips, the twisting of strips into coils, and the assembly of coils into finished forms; it produced field notes on sequence, tooling, working posture, and the points at which pieces were rejected or reworked. Semi-structured interviews with the founder covered the history of the enterprise, sourcing of material, technique, product development, and her own account of what makes a finished piece acceptable; interviews with the producers covered the division of work and the difficulties presented by particular forms. Photographic documentation recorded each product type against a consistent background and at a consistent distance, producing the corpus of sixteen images reproduced below. Literature study supplied the theoretical framework and the comparative craft cases discussed above. The interview guide and the observation protocol are available from the corresponding author.

Data Validation and Analysis

Credibility was established by triangulation of technique and of source. Statements made in interview about material, technique, and finishing were checked against what was observed during production sessions and against the evidence of the finished objects themselves; where the founder's account of a product's construction and the observed process diverged, the divergence was pursued in a subsequent interview. Descriptions of the individual items and the identification of each object's customary name and use were returned to the founder for confirmation before the analysis was written.

Analysis proceeded in two stages. In the first stage, each of the sixteen documented items was described in terms of form, construction, surface pattern, colour, and function; each description was then read against the three criteria in turn, and for each criterion a note was made of the specific feature of the object that satisfied it and of the point at which poor execution would become visible. In the second stage, the items were grouped into four functional categories — containers and serving ware, ceremonial and customary vessels, decorative objects, and bags — and the criterion-by-criterion notes were compared within and

across categories in order to establish which criteria vary with product type and which remain constant. The comparison was tabulated (Table 1), and the argument presented below follows from the patterns visible in that tabulation. The second stage is what distinguishes this analysis from an inventory: the object of interest is the pattern across the range, not the individual item.

Research Ethics and Positionality

No institutional review board governs research of this kind at the authors' institution. Consent was therefore secured directly and in stages: the founder was informed of the purpose of the research and of the intended publication at the first visit and gave oral consent to observation, to the recording of interviews, and to the photographic documentation and publication of the products; the producers who participated in interviews gave their consent separately at the time of interview. The founder is named at her own request, since the enterprise is identified by name and its attribution is a matter of professional credit; the other producers are identified by role only. No material of a sacred or restricted character was recorded. The ceremonial vessels documented here are manufactured products offered for sale and not consecrated objects, and they were photographed in the workshop rather than in ritual use. The first author was a student of the Department of Art and Design at the time of the research and had no prior relationship with the enterprise; the second and third authors supervised the study.

RESULT AND DISCUSSION

Material, Technique, and Production Context

The lintingan technique

The material base of all products at Gegaen Lima Craft is discarded school textbook paper, obtained without cost from relatives and neighbours whose children have finished with the books. Textbook paper is preferred over newsprint or magazine stock because its weight and fibre give it a combination of strength and pliability: it is stiff enough to hold a twist and flexible enough not to crack when bent around a form.

The core technique is *lintingan* (the twisting of paper into a cord). Sheets are cut into narrow strips of roughly uniform width; the width of the strip determines the eventual diameter of the cord and therefore the visual scale of the surface pattern. Each strip is rolled diagonally around a thin rod or needle under continuous tension, so that the paper spirals along its own length rather than folding, and is sealed with adhesive at the tail. The diagonal roll is essential: it distributes the paper's fibre along the axis of the cord and produces a strand with far greater rigidity and resistance to unravelling than a flat fold would give. Individual strands are joined end to end by inserting the tapered tail of one into the open end of the next, allowing a continuous working length to be built up.

Finished strands are worked in two principal ways. In coiling, the strand is wound in a continuous spiral and successive rounds are bound to one another, a method used for flat and rounded forms such as coasters, trays, rugs, and the bodies of containers. In weaving, vertical strands are set as a warp and a working strand is passed over and under them, a method used where a vertical wall is required, as in vases, lamp shades, and bags. Both methods leave the individual strand visible as the surface unit. This is the decisive fact for the aesthetic analysis that follows: the strand is simultaneously the structural member and the entire decorative vocabulary, and there is no layer of applied ornament above it. Finishing consists of a clear coating that stiffens the assembly and gives limited moisture resistance without concealing the paper. Where additional strength or comfort is required — bag handles, linings, closures — non-paper materials are introduced.

Production context

The enterprise was established at the end of 2015 by Luh Rusmiati, who developed the technique autodidactically through trial and error. Production initially served personal orders from relatives, chiefly *bokor* and fruit containers, from 2016. In 2017 an art shop began placing volume orders, which required production to expand beyond the founder alone and drew in relatives and neighbouring households as producers. Production remains order-driven rather than continuous, and the labour is organised around household schedules rather than fixed shifts. The art-shop channel is significant beyond its volume, since it places the products before buyers who, as Campbell (2005) observes of the craft consumer, purchase partly for the evidence of manual making that the object carries — a disposition that rewards precisely the qualities of execution examined below. Output therefore fluctuates with demand, and the enterprise continues to operate at the scale of a household-based workshop rather than a workshop with dedicated premises and a fixed workforce. Distribution runs through two channels that have persisted since the enterprise began: direct orders from relatives and neighbouring households, and wholesale orders placed by art shops serving the tourist market.

Containers and Serving Ware

The largest group of products consists of everyday containers and flat serving surfaces: the covered candy container, the parcel basket, the coaster, the tray, and the rug. These items are unified by a common constructive principle — coiled construction worked outward or upward from a centre — and by a common aesthetic problem: the form is functionally constrained and offers little scope for expressive shaping, so aesthetic interest must be generated within the surface itself. Figures 1 and 2 show the two vessel forms in this group.



Figure 1. Covered candy container with fitted lid
*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*



Figure 2. Parcel basket with arched handle
*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*

The covered candy container illustrates the group's characteristic solution. Its body is a small rounded vessel that swells slightly at the midpoint and is closed by a fitted lid. The surface consists of coiled strands laid in continuous horizontal courses, so that the coil itself generates both the pattern and the texture; the natural brown of the textbook paper is retained without dyeing. Unity here is not an achievement of composition so much as a consequence of construction: because the vessel is built from a single continuous strand, its curvature, its surface pattern, and its colour are necessarily consistent, and the lid repeats the body's coiling logic so that the closed object reads as one form. Complexity is modest and derives entirely from the regular repetition of the coil course, which produces a fine, even ribbing across the surface. Intensity is the criterion that carries the object: the evenness of coil tension, the maintenance of the swelling profile without collapse, and the accuracy of the lid's fit are the qualities that distinguish a well-made piece from a poorly made one in a form that admits no other kind of distinction.

The parcel basket extends the same logic to a form with an added element. Its elongated shallow body is fitted with an arched handle that carries above the rim, and the handle is worked in the same coiled material as the body rather than being attached in a contrasting material. Unity therefore operates across a junction rather than within a single mass: the handle reads as continuous with the basket because it repeats the body's material and coil scale. Complexity increases slightly relative to the candy container, since the eye now registers two different curvatures — the closed oval of the rim and the open arc of the handle — against a common surface texture. Intensity resides in the handle's execution: it must be shaped, tensioned, and anchored so that it bears weight without deforming, and it is the point at which failures of craftsmanship would be most visible.

The flat forms in this group, shown in Figures 3 and 4, reduce the problem further.



Figure 3. Coaster with concentric coil pattern
Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.



Figure 4. Trays in natural, dark-dyed, and green-dyed finishes
Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.

The coaster reduces the problem to its simplest terms. A flat disc coiled outward from a central point, it has no volume, no join, and no secondary element. Unity is total and effectively automatic, since the concentric coil pattern is identical with the form. Complexity is at its lowest across the whole product range: the only variation available is the gradual increase in circumference of successive rounds, which produces a visual rhythm of expanding concentric rings. Intensity again bears the aesthetic weight, expressed as consistency of coil tension across the disc, since any slackness produces a coaster that will not lie flat.

The tray adds a shallow raised rim to the coaster's flat disc, and with it a second surface plane. The rim follows the outline of the base and is worked continuously with it, so unity is preserved across the transition from horizontal to vertical. Complexity is greater here than in the coaster not because the pattern is more elaborate but because the wider field makes the coil rhythm legible over a longer visual span, and because the rim introduces a change of plane that catches light differently from the base. The trays photographed also demonstrate that colour is treated as a variable at this scale: natural, dark-dyed, and green-dyed examples were produced, indicating that where the form itself offers little differentiation, colour is the resource used to distinguish one piece from another. Intensity is expressed in the flatness of the base — a tray that has warped during assembly is unusable — and in the evenness of the rim height.



Figure 5. Circular rug with alternating natural and white concentric bands
 Photograph by the authors, Sudaji Village, Buleleng. Reproduced with the consent of Gegaen Lima Craft.

The rug (Figure 5) is the largest item in this group and the one in which complexity is most deliberately manipulated. Like the coaster it is coiled outward from a centre, but at this scale uniform natural colour would produce a monotonous field, and the maker responds by banding the surface: rings of natural paper alternate with rings of white, producing concentric zones that structure the surface into legible parts. This is the clearest instance in the whole product range of complexity being introduced deliberately rather than arising as a by-product of construction. Unity is maintained because the banding follows the coil geometry exactly rather than cutting across it. Intensity is a matter of scale and stamina: maintaining even tension across a diameter of this size, so that the finished rug lies flat and does not distort under use, requires the coiling to be worked consistently over a much longer continuous operation than any other product demands.

Read as a group, these five products show a consistent pattern. Unity is high throughout and is largely given by the coiling technique itself rather than achieved by compositional decision. Complexity is low and rises only where the maker introduces a second variable — a handle, a change of plane, or colour banding — with the rug representing the most deliberate intervention. Intensity is the operative criterion in every case, and it is expressed in the same terms each time: consistency of coil tension and accuracy of profile. This is the structural condition of coiled paper craft in its plainest form.

Ceremonial and Customary Vessels

Three products reproduce the forms of vessels used in Balinese customary and ceremonial contexts: the *bokor*, the *dulang*, and the *nare*. These are not generic containers. The *bokor* is a footed round bowl conventionally used to carry offerings and ceremonial materials; the *dulang* is a raised pedestal tray on which *banten* (arrangements of offerings) are presented and elevated above the ground as ritual propriety requires; the *nare* is a broad lidded round container used to carry goods in *hantaran* and *seserahan* (the formal presentation of gifts between families at weddings and comparable occasions). In each case the object's identity is defined by a customary form that the maker must reproduce accurately, since a *bokor* whose proportions are wrong ceases to be a *bokor*. This constraint changes the aesthetic problem: unlike the containers discussed above, where the maker chooses the form, here the form is inherited and the aesthetic question is how a new material can carry it. The finding of Karuni et al. (2020), that upcycled materials are accepted in ceremonial use when the customary form is preserved, is directly relevant, and this group is where the present study most clearly extends that finding to a paper medium. Figures 6 and 7 show the first two of these vessels.



Figure 6. Bokor with beaded rim treatment
 Photograph by the authors, Sudaji Village, Buleleng.
 Reproduced with the consent of Gegaen Lima Craft.



Figure 7. Dulang with wide tray and pedestal foot
 Photograph by the authors, Sudaji Village, Buleleng.
 Reproduced with the consent of Gegaen Lima Craft.

The *bokor* is a round bowl with a widening body and a supporting base. Its distinctive feature in this rendering is the rim, where coils are worked into a raised, repeating projection that reads as a beaded or scalloped border. This is the one place in the entire product range where a decorative treatment is applied that is not simply a by-product of construction, and it is significant that it appears on a ceremonial rather than a domestic object. Unity holds because the rim treatment uses the same coil material at the same scale as the body; the border is a modulation of the surface rather than an addition to it. Complexity is markedly higher than in any product in the first category, since the eye registers two distinct pattern regimes — the smooth concentric coiling of the body and the rhythmic projection of the rim — in a single object. Intensity lies in the regularity of the rim repeat, which is unforgiving: an uneven bead count or spacing is immediately visible around a circular edge, and in the maintenance of the circular profile that the customary form requires.

The *dulang* presents the most demanding structural problem in the collection. A wide shallow tray must be carried on a narrow pedestal foot, and the object must remain stable when loaded with offerings. The wide-above-narrow-below profile is not a stylistic choice but a requirement of the customary form, which exists precisely to raise offerings. Unity is achieved through the continuity of the coil surface across the transition from tray to pedestal, so that the two structurally distinct parts read as a single turned form rather than as an assembly. Complexity is moderate and comes from the silhouette rather than the surface: the contrast between the broad horizontal of the tray and the compressed vertical of the foot gives the object a profile that no other product in the range possesses. Intensity is most acute here, since the pedestal must be built with sufficient rigidity in a material that has none inherently, and the proportional relation between tray width and foot height must be judged accurately for the object to appear balanced rather than top-heavy.



Figure 8. Nare with contrasting dark-toned interior coiling and fitted domed lid
 Photograph by the authors, Sudaji Village, Buleleng. Reproduced with the consent of Gegaen Lima Craft.

The *nare* (Figure 8) is a broad round lidded container used in gift presentation. Its rendering here introduces a two-tone treatment: the body's interior is worked in a dark reddish-brown while the outer wall and rim retain the lighter natural tone, producing a marked contrast when

the container is open. Unity is maintained by the shared coil scale and by the lid, which repeats the body's circular geometry and completes the vessel. Complexity is generated by the colour contrast between interior and exterior, a device that has a functional as well as a visual rationale in a presentation vessel: the darker interior frames whatever is placed in it. Intensity is expressed in the fit of lid to body, which for a container carried in procession must be accurate enough to stay closed in transit while remaining easy to lift.

Across this group the pattern differs measurably from the first category. Complexity is consistently higher, and in the *bokor* and *nare* it is the product of a deliberate decorative decision — a worked rim, a colour contrast — rather than an incidental effect of coiling. This suggests that where the object carries ceremonial significance, the maker invests additional visual elaboration, a pattern consistent with the customary expectation that offering vessels should be visually distinguished from ordinary household ware. Unity is preserved by the same means as before, through material and coil-scale consistency. Intensity, however, acquires an additional criterion in this group: fidelity to the inherited form. A well-made *dulang* is not only evenly coiled but correctly proportioned as a *dulang*, and this constraint is external to Beardsley's framework yet decisive for how these objects are actually evaluated by their users.

Decorative and Accessory Objects

A third group comprises objects whose primary purpose is display or ornament rather than containment: the flower vase, the table lamp, and the keychain. Because function imposes fewer constraints on these forms, they are where the technique's expressive range is most visible. Figures 9 and 10 show the two larger objects in this group.



Figure 9. Flower vase with banded brown zones
Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.



Figure 10. Table lamp; the open weave acts as an aperture array
Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.

The flower vase is built as a vertical woven wall rather than a horizontal coil, with a wide base, a swelling midsection, and a narrowed neck. The profile is deliberately shaped rather than functionally determined, and it evokes the silhouette of a ceramic vase or *kendi*. Unity arises from the smooth continuity of that profile and from the consistency of the weave across the changing circumference, which is technically demanding: the weave must accommodate an expanding and then contracting diameter without visible disruption. Complexity is achieved through horizontal colour banding, with zones of light and dark brown that divide the vertical surface into registers and emphasise the shifts in the profile. Intensity is a matter of proportional judgement — the relation of base to midsection to neck determines whether the object reads as a vase or as a failed cylinder — and of maintaining wall rigidity in an unsupported vertical form.

The table lamp is the most conceptually interesting object in the collection because it is the only one whose aesthetic effect changes with use. The shade is a woven vertical form with an hourglass profile, and the gaps between weave elements are not incidental: they function as

an aperture array. Unswitched, the object presents as a sculptural form in which weave texture and paper colour dominate. Switched on, the same weave becomes a light modifier, projecting a pattern of illumination and shadow onto the surrounding surfaces. Unity operates across both states, since the single woven structure serves as form, as surface, and as optical device. Complexity is uniquely doubled here: the object possesses a static complexity in its weave and a second, projected complexity in the light pattern it generates, and the two are related but not identical. Intensity is expressed in the calibration of the weave spacing, which must be open enough to transmit light and close enough to retain structural coherence and to cast a defined rather than diffuse shadow. This object demonstrates that the technique's characteristic limitation — a surface consisting of nothing but repeated strands with gaps between them — can be converted into an expressive resource when the gaps themselves are made to do work. The keychains, shown in Figures 11 and 12, test the technique at the opposite extreme of scale.



Figure 11. Star-form keychains at minimum workable scale

Photograph by the authors, Sudaji Village, Buleleng. Reproduced with the consent of Gegaen Lima Craft.



Figure 12. Fish-form keychains with dyed strands

Photograph by the authors, Sudaji Village, Buleleng. Reproduced with the consent of Gegaen Lima Craft.

Two keychain forms are produced: a star, geometric and flat, and a fish, figurative and elongated with a suggested body, tail, and fin. Unity in objects this small is essentially a question of whether the form remains legible, and it does: the star's points are distinct and the fish reads unmistakably as a fish. Complexity is inherently constrained, since a small object accommodates only a limited number of coil elements, and the fish achieves greater complexity than the star through its articulated silhouette and dyed strands. Intensity is the criterion under greatest pressure, because at this scale each coil is a larger fraction of the whole and small irregularities are proportionally magnified; maintaining a sharp angle at a star point or a definite taper at a fish tail requires precision that the larger objects, with their averaging effect across many coils, do not demand.

This group shows the technique's expressive ceiling. Where function is loosened, the maker introduces shaped profiles, colour banding, figurative reference, and, in the lamp, an optical dimension. Complexity in this group is not incidental but designed. Intensity remains the dominant criterion but shifts in character: it is less about even tension over a large surface and more about accuracy of proportion and of small-scale definition.

Bags: Products of Material Combination

The four bags — sling bag, handbag, drawstring bag, and tote bag — form a distinct group because they are the only products in which paper is systematically combined with other materials. Bags impose demands that coiled paper cannot meet unaided: they must tolerate abrasion, carry weight through a strap or handle, close securely, and protect their contents. Each of these requirements is met by an introduced material, and the aesthetic question accordingly shifts from how a single material is worked to how two or more materials are brought into relation. Figures 13 and 14 show the two carried forms.



Figure 13. Sling bag: woven paper body with contrasting flap

*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*



Figure 14. Handbag with rolled handles and fabric lining

*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*

The sling bag pairs a woven paper body with a smooth tan flap and matching adjustable strap, closed with a metal turn-lock. The relation between the materials is one of deliberate contrast: a textured, irregular, matte surface set against a smooth, uniform one. Unity is achieved through colour rather than texture, since the flap material is chosen in a tone close to that of the natural paper, so that the two surfaces read as belonging to one object despite their differing character. Complexity arises precisely from the material contrast and from the metal fitting, which introduces a third surface quality. Intensity resides in the junction: the seam at which the flap meets the woven body is where poor execution would be most apparent, and its neatness is the mark of the object's quality.

The handbag is a rectangular open-topped form with a woven paper body, rolled handles in a contrasting reddish material, an interior fabric lining, and a tassel detail. The introduced materials are function-driven — the handles must be comfortable in the hand and the lining must prevent small items from passing through the weave — but they are selected with visual coordination in mind, the handle tone picking up the darker registers in the paper. Unity depends on this coordination rather than on material continuity. Complexity is generated by the accumulation of distinct elements: woven field, handle, lining edge, and tassel. Intensity is expressed in the finishing of the top edge, where the weave terminates and the handle is anchored — the point of greatest structural stress and the most demanding junction in the object.

The remaining two bags, shown in Figures 15 and 16, represent opposite strategies of material combination.



Figure 15. Drawstring bags with endek cloth uppers

*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*



Figure 16. Tote bag with clear-coated woven paper body

*Photograph by the authors, Sudaji Village, Buleleng.
Reproduced with the consent of Gegaen Lima Craft.*

The drawstring bag is the most culturally significant object in this group, because the material it is combined with is *endek*, a traditional Balinese woven cloth. The lower body is woven paper and the upper section is *endek*, gathered by a drawstring closure. The combination places a

material with no cultural history alongside one heavily freighted with it, and the resulting object is neither wholly traditional nor wholly contemporary. Unity is the most difficult achievement here, since paper weave and patterned cloth share neither texture, colour range, nor pattern logic; it is secured by the horizontal division, which reads as an intentional register change rather than as an incompatibility. Complexity is the highest of any product in the range, combining the coil rhythm of the base with the figured pattern of the *endek*. Intensity lies in the seam where the two materials meet, which must join a rigid woven structure to a flexible textile without puckering, and in the restraint of the proportion between the two zones.

The tote bag represents the opposite strategy. Its rectangular body is woven paper in undyed tone, finished with a clear coating that adds slight sheen and moisture resistance without concealing the material, and fitted with a plain dark strap. Introduced material is kept to a functional minimum. Unity is consequently the most straightforward in this group, resting on a single dominant material and a restrained accent. Complexity is the lowest of the four bags and derives only from the weave rhythm and the coating's effect on light. Intensity is expressed in surface consistency across a large flat field, where any irregularity in the weave has nowhere to hide, and in the clean termination of the upper edge. The tote demonstrates that within the same functional category the maker can pursue either elaboration through combination, as in the drawstring bag, or restraint through material singularity, and that both are aesthetically coherent strategies.

Comparative Synthesis

Comparing the four categories yields a pattern that no single-product analysis would reveal. Table 1 summarises how each Beardsley criterion is realised across the range.

Table 1. Realisation of unity, complexity, and intensity across product categories

Category	Unity	Complexity	Intensity
Containers and serving ware	High; given by continuous coil construction	Low; incidental, rising only with banding or an added handle	Even coil tension; flatness and profile accuracy
Ceremonial vessels	High; secured by coil-scale consistency across parts	Moderate to high; deliberate (worked rim, tonal contrast)	Structural rigidity plus fidelity to inherited customary form
Decorative objects	High; profile continuity across changing diameter	High; designed (banding, figuration, projected light)	Proportional judgement; small-scale definition
Bags	Achieved by colour coordination across materials	Highest; product of material combination	Quality of the junction between dissimilar materials

Source: authors' analysis of the documented product range.

Three findings follow. First, unity is close to constant across the range and is largely not an achievement of composition. Because every object is built from one continuous strand at a consistent scale, coherence is a structural consequence of the technique rather than a decision the maker makes. The single case where unity genuinely has to be worked for is the drawstring bag, where two materials with incompatible surface logics must be reconciled. Unity is therefore the least discriminating of the three criteria for this craft: it cannot be used to distinguish a better piece from a worse one, because it is nearly always present.

Second, complexity varies systematically with the degree of functional constraint, and it does so inversely. Where function most tightly determines form — coasters, trays, candy containers — complexity is lowest and is a by-product of coiling rather than a designed effect. Where

function loosens — vases, lamps — complexity rises and becomes deliberate. The ceremonial vessels are the informative exception: their forms are tightly constrained by customary requirement, yet their complexity is high, because the maker invests additional elaboration in objects that carry ritual significance. The worked rim of the *bokor* and the two-tone interior of the *nare* are the clearest instances of ornament being added for reasons that are cultural rather than formal.

Third, intensity is the criterion that actually carries aesthetic value in this craft, and it is the only one that discriminates quality consistently across every category. This is a direct consequence of the material condition described earlier: because the coil is simultaneously the structure and the entire decorative vocabulary, there is no ornamental layer behind which imprecision can be concealed. Every irregularity of tension, every deviation of profile, every misjudged proportion is visible on the finished surface. What is notable is that intensity does not mean the same thing in each category. In the containers it means evenness of tension across a surface; in the ceremonial vessels it means structural rigidity together with fidelity to an inherited form; in the decorative objects it means proportional judgement and definition at small scale; in the bags it means the quality of the junction between dissimilar materials. Beardsley's criterion is thus not a single measure but a family of related demands whose specific content is set by the object's function. This qualifies Wolterstorff's (2005) reading of intensity as a general guarantee against blandness: in a craft of this kind intensity is not a single quality at all, but a function-specific standard of execution, and Goldman's (2005) objection that the scheme is too austere is met not by adding criteria but by recognising that one criterion carries several distinct contents.

Taken together, these findings support a general claim about upcycled craft of this type. The aesthetic achievement of Gegaen Lima Craft does not lie in disguising paper as something else, nor in applying decoration to compensate for a humble material. It lies in accepting the coil as the total visual vocabulary and extracting differentiation from the limited variables that remain available: coil density, colour, profile, aperture, and material juxtaposition. This is consistent with the finding of Komariah (2021) and Setiawan et al. (2023) that residual materials are aesthetically most successful when their character is exposed rather than concealed, and it extends that finding to a material with no prior standing in Balinese craft tradition. It also gives specific content to the claim of Bridgens et al. (2018) that upcycling reconnects makers with materials: here the reconnection is legible in the object itself, since the surface records the maker's handling of every strand. It departs, however, from the emphasis of the recycling-oriented literature on paper waste (Arfah, 2017; Basyari et al., 2022; Fatin et al., 2021), in which the material's origin in waste is the principal point of interest; in the objects analysed here the origin is invisible in the finished surface and irrelevant to how the object is judged, and the explanation is that the coiling process destroys every trace of the printed page, leaving a material that must be evaluated on its own formal terms.

A further implication concerns cultural continuity. The ceremonial vessels — *bokor*, *dulang*, *nare* — reproduce customary Balinese object-types in a material that has no traditional precedent whatever. Sathotho (2022) and Tama et al. (2024) argue that a local practice becomes transmissible when its constituent elements can be identified and articulated, and the same holds in the material domain: what is transmitted in these objects is not the medium but the form, the proportion, and the ritual role. Paper waste enters Balinese material culture not by resembling the palm-leaf, bamboo, or metal it substitutes for, but by carrying forward the object-types those media traditionally realised. The craft is thus a vehicle of cultural continuity precisely because it is materially discontinuous.

CONCLUSION

Gegaen Lima Craft converts discarded textbook paper into fifteen product types spanning household containers, customary ceremonial vessels, decorative objects, and mixed-material bags, using a coiling-and-weaving technique in which the twisted paper strand serves simultaneously as structural member and as the entire surface vocabulary. Analysed against Beardsley's criteria, the range yields three answers to the question with which the study began. Unity is near-constant and largely automatic, following from the constructive logic of coiling rather than from compositional decision, and it therefore does little to discriminate quality. Complexity varies inversely with functional constraint, except in ceremonial vessels, where cultural significance prompts deliberate elaboration despite tight formal constraint. Intensity is the decisive criterion throughout, because a surface composed entirely of one repeated element offers no ornamental layer behind which imprecision can hide; its specific content, however, is set by the object's function, ranging from evenness of tension to fidelity to an inherited customary form.

The contribution is twofold. Where prior studies of Balinese upcycled craft have examined materials whose character approximates that of the traditional media they replace, this study shows how aesthetic value is constituted in a material with no such precedent, and it identifies the specific resources — coil density, colour banding, profile shaping, aperture, and material juxtaposition — through which differentiation is achieved within a single-element vocabulary. It also shows that upcycled paper craft participates in cultural continuity through form rather than through medium, reproducing customary object-types in a materially discontinuous register. For practitioners and for the vocational and arts-education programmes that support household craft enterprises in Buleleng, the practical consequence is that instruction and quality assessment in this craft should concentrate on execution — tension, profile, proportion, junction — rather than on the addition of ornament, since it is execution that the material makes visible and ornament that it largely forecloses.

Two limitations bound these findings. The study analyses a single enterprise, so the pattern identified across categories cannot yet be generalised to paper craft elsewhere in Buleleng or Bali. And the analysis is confined to aesthetic value as realised in the object; it does not address how producers and purchasers themselves evaluate these products, and the founder's own criteria of acceptability, reported here through interview, have not been tested against those of buyers. Comparative study across several paper-craft producers, reception research with users of the ceremonial vessels in particular, and investigation of the durability and economic sustainability of paper-based craft would each extend the account offered here.

ACKNOWLEDGMENT

The authors thank Luh Rusmiati and the producers of Gegaen Lima Craft, Sudaji Village, for their openness during observation and interview and for permission to document and reproduce images of their products. The authors also thank the Department of Art and Design, Faculty of Language and Arts, Universitas Pendidikan Ganesha, for institutional support during the fieldwork.

DECLARATIONS

Author contributions. M.E. — conceptualisation, methodology, investigation, formal analysis, visualisation, writing (original draft); L.S. — conceptualisation, supervision, validation, writing (review and editing); I.W.S. — supervision, validation, writing (review and editing). All authors have read and approved the final manuscript.

Funding. This research received no external funding.

Conflict of interest. The authors declare no conflict of interest. None of the authors has a financial or professional relationship with Gegaen Lima Craft or with the art shops through which its products are distributed.

Ethical approval and informed consent. No institutional ethics board reviews research of this type at the authors' institution. Informed consent was obtained orally from the founder of the enterprise and from each producer interviewed, covering observation, audio recording, photographic documentation, and publication. The founder consented to be named; the other producers are identified by role only. Consent to publish the photographs of the products reproduced here was given by the founder as the rights holder.

Data availability. Field notes, interview recordings and transcripts, and the full photographic corpus are held by the corresponding author and may be consulted on reasonable request, subject to the anonymity undertaken for the producers other than the founder.

REFERENCES

- Arfah, M. (2017). Pemanfaatan limbah kertas menjadi kertas daur ulang bernilai tambah oleh mahasiswa. *Buletin Utama Teknik*, 13(1), 28–31. <https://jurnal.uisu.ac.id/index.php/but/article/view/257>
- Astuti, S. (2012). *Pemanfaatan limbah kertas koran sebagai bahan utama pembuatan tas dan sandal di "Dluwang Art" Sinduadi Sleman Yogyakarta* [Undergraduate thesis, Universitas Negeri Yogyakarta]. Institutional repository.
- Atmaja, D. M., Nugraha, A. S. A., & Kurniawan, W. D. W. (2021). Pengelolaan lingkungan terpadu berbasis pelatihan geography information system (GIS) bagi aparat Desa Tegallinggah. In *Seminar Nasional Pengabdian kepada Masyarakat Undiksha* (pp. 1181–1186). <https://conference.undiksha.ac.id/senadimas/2021/prosiding/file/163.pdf>
- Basyari, I. W., Nurhayati, S., & Mulyani, S. (2022). Daur ulang limbah kertas menjadi media pembelajaran literasi peta pada KKG SD Kota Cirebon. *Bima Abdi: Jurnal Pengabdian Masyarakat*, 2(1), 87–96. <https://doi.org/10.53299/bajpm.v2i1.149>
- Beardsley, M. C. (1981). *Aesthetics: Problems in the philosophy of criticism* (2nd ed.). Hackett.
- Braungart, M., McDonough, W., & Bollinger, A. (2007). Cradle-to-cradle design: Creating healthy emissions — A strategy for eco-effective product and system design. *Journal of Cleaner Production*, 15(13–14), 1337–1348. <https://doi.org/10.1016/j.jclepro.2006.08.003>
- Bridgens, B., Powell, M., Farmer, G., Walsh, C. L., Reed, E., Royapoor, M., Gosling, P., Hall, J., & Heidrich, O. (2018). Creative upcycling: Reconnecting people, materials and place through making. *Journal of Cleaner Production*, 189, 145–154. <https://doi.org/10.1016/j.jclepro.2018.03.317>
- Campbell, C. (2005). The craft consumer: Culture, craft and consumption in a postmodern society. *Journal of Consumer Culture*, 5(1), 23–42. <https://doi.org/10.1177/1469540505049843>
- Dharsono, S. K. (2007). *Estetika*. Rekayasa Sains.
- Dickie, G. (2005). The origins of Beardsley's aesthetics. *The Journal of Aesthetics and Art Criticism*, 63(2), 175–178. <https://doi.org/10.1111/j.0021-8529.2005.00193.x>
- Fatin, H. A., Usodoningtyas, S., Dwiyantri, S., & Megasari, D. S. (2021). Pemanfaatan limbah kertas sebagai aksesoris rambut. *Jurnal Tata Rias*, 10(3), 75–82. <https://ejournal.unesa.ac.id/index.php/jurnal-tatarias/article/view/43249>
- Goldman, A. (2005). Beardsley's legacy: The theory of aesthetic value. *The Journal of Aesthetics and Art Criticism*, 63(2), 185–189. <https://doi.org/10.1111/j.0021-8529.2005.00195.x>
- Gunarto, A., Satyarno, I., & Tjokrodinuljo, K. (2008). Pemanfaatan limbah kertas koran untuk pembuatan panel papercrete. *Civil Engineering Forum Teknik Sipil*, 18(2), 788–797.

- Juliandi, J. (2022). *Model pengelolaan sampah berbasis sumber dengan sistem reduce-reuse-recycle (3R) di TPS 3R Desa Baktiseraga* [Doctoral dissertation, Universitas Pendidikan Ganesha]. Institutional repository. <https://repo.undiksha.ac.id/id/eprint/11607>
- Karuni, N. K., Radiawan, I. M., & Mudra, I. W. (2020). Seni kerajinan sarana upacara berbasis upcycle di Desa Kediri Tabanan. *Mudra Jurnal Seni Budaya*, 35(2), 202–209. <https://doi.org/10.31091/mudra.v35i2.1054>
- Komariah, I. S. (2021). Seni kerajinan perpaduan limbah kayu jati dan akar bambu di Flodista Bale Roso Tamansari Bondowoso. *Jurnal Pendidikan Seni Rupa Undiksha*, 11(3), 244–253. <https://doi.org/10.23887/jjpsp.v11i3.4205>
- Levinson, J. (Ed.). (2003). *The Oxford handbook of aesthetics*. Oxford University Press.
- Nugraha, N. P., Dantes, K. R., Wigrha, N. A., & Sudiarta, W. (2019). Bamboo fiber commodity in Bali reinforced composite for sokasi craft to increase the tourism products. *EnvironmentAsia*, 12(1), 55–62. [https://tshe.org/ea/pdf/EA12\(1\)_06.pdf](https://tshe.org/ea/pdf/EA12(1)_06.pdf)
- Nurchaya, S. B., & Muksin, M. (2024). Pengelolaan sampah kertas menjadi kerajinan tangan kesenian tradisional Bandung. *Jurnal Pengabdian kepada Masyarakat*, 2(2), 137–146. <https://doi.org/10.59820/pengmas.v2i2.181>
- Sathotho, S. F. (2022). Mandiek anak as performance at Salareh Aia. *TONIL: Jurnal Kajian Sastra, Teater dan Sinema*, 19(1), 1–12. <https://doi.org/10.24821/tnl.v19i1.6933>
- Setiawan, I., Sudirtha, I. G., & Angendari, M. D. (2023). Kerajinan songkok dari tapes pohon kelapa di Desa Kertosari, Kecamatan Asembagus, Kabupaten Situbondo, Jawa Timur. *Jurnal Pendidikan Seni Rupa Undiksha*, 13(2), 119–130. <https://doi.org/10.23887/jjpsp.v13i2.65220>
- Suartini, L., & Supir, I. K. (2024). Lingkungan sebagai sumber dan media pembelajaran seni rupa di sekolah dasar lingkungan seni Kabupaten Buleleng. *Jurnal Pendidikan Seni Rupa Undiksha*, 14(1), 154–161. <https://ejournal.undiksha.ac.id/index.php/JJPSP/article/view/78055>
- Sudita, K. (2014). Pemanfaatan barang bekas sebagai bahan pembuatan barong mini dalam pembelajaran seni kerajinan tangan. *Jurnal Pendidikan dan Pengajaran*, 47(2–3), 154–163. <https://ejournal.undiksha.ac.id/index.php/JPP/article/view/4904>
- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Tama, K., Sathotho, S. F., & Sahid, N. (2024). Transmisi budaya masyarakat adat Batak Toba dalam pergeleran budaya Ulaon Unjuk di Tapanuli Utara. *TONIL: Jurnal Kajian Sastra, Teater dan Sinema*, 21(2), 126–140. <https://doi.org/10.24821/tnl.v21i2.13759>
- Wegener, C. (2016). Upcycling. In C. Wegener (Ed.), *Creativity — A new vocabulary* (pp. 181–188). Palgrave Macmillan. https://doi.org/10.1057/9781137511805_21
- Widarma, K. T. (2018). *Kerajinan limbah kertas di Desa Bondalem, Kecamatan Tejakula, Kabupaten Buleleng* [Unpublished research report]. Universitas Pendidikan Ganesha.
- Wolterstorff, N. (2005). Beardsley's approach. *The Journal of Aesthetics and Art Criticism*, 63(2), 191–195. <https://doi.org/10.1111/j.0021-8529.2005.00197.x>