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Visual Grammar and Aesthetic Differentiation of Geometric, Organic and Hybrid Zentangle Motifs

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Abstract

Research on Zentangle has largely emphasized psychological, therapeutic, and educational outcomes, while the motifs themselves remain underexplored as visual and aesthetic systems. This study addresses that gap by systematically examining the visual grammar and aesthetic differentiation of geometric, organic, and hybrid Zentangle motifs. The objective is to construct a comparative framework that clarifies how different motif categories generate distinct visual and aesthetic impressions. A qualitative descriptive–analytical design was applied to thirty purposively selected motifs. Data collection involved visual observation, literature review, and documentation. Analysis proceeded in two stages: first, visual elements and organizational relations were mapped using Wucius Wong's framework; second, aesthetic interpretation was conducted through Anak Agung Made Djelantik's triadic aspects of form, content, and presentation. Form encompassed the structural composition of lines, shapes, and spatial organization; content referred to expressive meaning conveyed through rhythm, balance, and symbolic resonance; presentation highlighted sensory impact, including clarity, harmony, and dynamic appeal. Results revealed that lines and repetition consistently functioned as principal devices across categories. Geometric motifs emphasized straight lines, angular fields, and formal structures; organic motifs emphasized curved lines, rounded fields, and flowing arrangements; hybrid motifs integrated structural regularity with organic flexibility. The study contributes a systematic comparative model for reading nonrepresentational pattern-based visuals and offers implications for motif development in surface design, textiles, illustration, and digital art.

INTRODUCTION

Pattern-based visual forms occupy an important position in contemporary art and design because a limited set of elements can generate extensive variation through organization, repetition, and transformation. In two-dimensional design, line, plane, shape, direction, size, color, texture, and structure do not

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operate independently. Their relationships determine how a composition is perceived as ordered, dense, flowing, balanced, rhythmic, or dynamic (Wong, 1972). Pattern therefore functions not merely as decoration, but as an organized visual system whose character emerges from the formation, arrangement, variation, and repetition of its constituent units. Examining these relationships is important for understanding how elementary visual components develop into complex and distinguishable structures.

Recent studies in empirical aesthetics support the importance of examining visual organization through observable properties. Aesthetic responses are influenced by combinations of low-level and high-level visual features rather than by a single formal characteristic (Iigaya et al., 2021). Order, complexity, orientation, shape, and the organization of multiple elements have also been identified as relevant dimensions in aesthetic evaluation (Geert & Wagemans, 2021; Van Geert et al., 2023). Research on abstract images further indicates that measurable visual properties may correspond with judgments of harmony, attractiveness, visual comfort, and preference (Geller et al., 2022; Redies & Bartho, 2023). These developments demonstrate the scientific relevance of connecting visible formal properties with the aesthetic impressions generated by their organization.

Zentangle provides a relevant example of a contemporary pattern-based visual system. Developed by Rick Roberts and Maria Thomas, the method constructs structured patterns gradually from elementary strokes, including dots, straight and curved lines, and rounded forms (Roberts & Thomas, 2012). It is commonly executed with black ink on white paper, although pencil shading may introduce gray values. Zentangle motifs are primarily nonrepresentational and are generally introduced through step-by-step decompositions. This process allows simple visual units to develop into complex arrangements while retaining recognizable relationships of structure, direction, spacing, and repetition.

The circulation of Zentangle through books, teaching communities, websites, and digital pattern archives has expanded its visibility beyond its original drawing format. Farmer, (2026) TanglePatterns.com Tangle Guide, Fifteenth Edition documents a large and continually developing vocabulary of named motifs. Computational research has demonstrated that related pattern logic can be translated into generative visual systems through combinations of evolutionary image generation and procedural organization (Krolikowski et al., 2020). In applied design contexts, Zentangle patterns have also been adapted to product surfaces, including nail design, demonstrating that their visual components can be transferred and reorganized across different media (Heo et al., 2021).

These developments indicate that Zentangle is no longer limited to an individual drawing activity. It has become part of a broader contemporary visual practice involving manual drawing, digital documentation, design adaptation, and generative processes. Its expanding visual vocabulary creates a need for a systematic analytical framework that can explain how the motifs are constructed and differentiated. This need becomes increasingly important as motifs are reproduced, modified, and applied to different scales, surfaces, materials, and technologies.

Classification based only on general visual impressions is insufficient for addressing this development. Categories such as geometric, organic, and hybrid geometric-organic provide useful initial distinctions, but they do not independently explain how line geometry, curvature, angularity, direction, density, spatial division, structure, and repetition interact within a motif. A

motif containing rounded units, for example, may still follow a formal grid, while a motif composed of angular units may develop through rotational movement. Classification must therefore consider not only the appearance of individual units, but also the organizational relationships through which those units form a coherent pattern.

Despite the visual diversity of Zentangle motifs, the strongest body of published research has focused on Zentangle as an activity, educational practice, or psychological intervention. Experimental and feasibility studies have examined affective well-being, depression, anxiety, self-compassion, attention, stress, and drawing experiences among adults, university students, older adults, and clinical populations (Chan & Lo, 2024; Cheung et al., 2023; Chung et al., 2022; McCord et al., 2025; Sit et al., 2022; Stojcevski et al., 2023; Sun et al., 2026; Usman et al., 2024). A recent scoping review similarly confirms that mental-health outcomes remain a central orientation in Zentangle research (Hermanto et al., 2025).

Broader research on visual art interventions has also concentrated on cognition, emotional well-being, therapeutic mechanisms, and health outcomes (Chiang et al., 2024; de Witte et al., 2021; Joschko et al., 2024; Masika et al., 2022). These studies provide important evidence regarding the experience and possible benefits of artistic activity. However, they generally position the visual motif as a medium through which an intervention occurs rather than as the primary object of formal and aesthetic analysis. Consequently, the visual construction of Zentangle motifs and the basis of their aesthetic differentiation remain less systematically discussed.

This imbalance produces a specific theoretical and methodological gap. Existing research provides substantial explanations of what participants may experience while drawing Zentangle, but offers less explanation of how the motifs themselves are visually constructed and why different organizational systems generate different aesthetic impressions. Without systematic mapping, descriptions of order, firmness, density, flexibility, rhythm, or dynamism may remain impressionistic because they are not explicitly connected to visible evidence. Such interpretations may also become inconsistent when similar forms are arranged through different structures or when different forms produce comparable impressions.

The scientific urgency of the present study therefore lies in establishing an analytical basis that connects visual elements, organizational relationships, and aesthetic characteristics. This basis is required not only to describe existing motifs more accurately, but also to support consistent comparison, classification, development, and adaptation of pattern-based visual forms. In the current context, such an approach may strengthen the analysis of manually and digitally documented motifs. In future contexts, it may support computational measurement, generative pattern development, and systematic design transformation based on identifiable visual parameters.

The present study integrates two complementary theoretical frameworks. Wucius Wong's principles of two-dimensional design provide a systematic vocabulary for identifying conceptual, visual, and relational elements within a composition (Wong, 1972). This framework supports the mapping of points, lines, planes, shapes, sizes, directions, colors, textures, structures, spatial relationships, and repetition. It enables the analysis to identify not only which elements are present, but also how they interact to form recognizable organizational tendencies.

Anak Agung Made Djelantik's aesthetic framework examines shape, weight, and appearance, translated in this article as form, content, and

presentation (Djelantik, 1999). Form concerns visible shapes and their structural organization. Content concerns the impressions, visual ideas, and possible messages that arise from the arrangement. Presentation concerns the sensitivity, skills, and media involved in realizing the work. In this study, content is limited to impressions and visual ideas supported by observable evidence and documentary sources. Symbolic meanings are not assigned when the available data do not provide sufficient support.

The integration of these frameworks strengthens their relevance for contemporary nonrepresentational visual research. Wong's framework prevents the analysis from relying solely on general aesthetic adjectives because every interpretation must be traced to visible elements and organizational relationships. Djelantik's framework prevents formal analysis from ending as an inventory by connecting visual structures with the impressions and ideas they generate. Their combined application produces a systematic movement from element to arrangement and from arrangement to aesthetic character.

This integration does not seek to modify the original principles proposed by Wong or Djelantik. Instead, it extends their applicability by demonstrating how both frameworks can be used together to examine a contemporary pattern system that has rarely been studied through combined formal and aesthetic analysis. The study also connects established design theory with recent empirical-aesthetic approaches that examine order, complexity, orientation, and measurable image properties (Geert & Wagemans, 2021; Geller et al., 2022; Iigaya et al., 2021; Redies & Bartho, 2023; Van Geert et al., 2023). Emerging computational tools for measuring symmetry, complexity, edge orientation, spatial organization, and self-similarity further indicate that formal visual analysis may provide a foundation for future quantitative investigation (Redies et al., 2025).

The term visual grammar is used in this study to describe the recurring relationships through which elementary visual components become coherent pattern systems. It does not refer to a fixed linguistic syntax. Rather, it concerns the roles of lines, fields, directions, spatial divisions, structures, compositions, and repetition in organizing a motif. Through this concept, the study examines both the common visual foundations shared across Zentangle motifs and the organizational tendencies that differentiate geometric, organic, and hybrid geometric-organic categories.

The study addresses two research questions. First, what visual elements and organizational tendencies constitute the visual grammar of geometric, organic, and hybrid geometric-organic Zentangle motifs? Second, how do these tendencies shape the aesthetic characteristics of each category? Accordingly, the study aims to identify and compare the visual relationships that construct thirty selected motifs and to interpret their aesthetic characteristics through the aspects of form, content, and presentation.

The scientific contribution of the study lies in positioning Zentangle motifs as independent visual objects rather than merely as instruments within psychological, therapeutic, or educational activities. The proposed comparative framework strengthens existing design and aesthetic theories by demonstrating how formal mapping and aesthetic interpretation can operate as connected analytical stages. For contemporary art and design research, the framework supports a more consistent discussion of motif classification and visual character. For future research and practice, the identified relationships among line geometry, unit shape, spacing, direction, structure, and repetition may support motif development in textiles, surface design, illustration, packaging, fashion, digital art, and generative visual systems.

METHODS

This study employed a qualitative descriptive-analytical design (Engkizar et al., 2024; Ibrahim et al., 2025). The descriptive stage identified the elements visible in each motif, while the analytical stage examined the relationships, similarities, differences, and category-level tendencies that emerged from the observations. The approach was selected because the data consisted of images and documentary sources rather than numerical measurements, and because the research aimed to explain how formal components combine to produce aesthetic character.

The research object was the Zentangle motif as a two-dimensional, pattern-based visual form. Thirty motifs were purposively selected from the TanglePatterns.com Tangle Guide, 15th Edition (Farmer, 2026). Purposive selection was used to secure comparable examples representing three visually defined categories: geometric, organic, and hybrid geometric-organic (Anidar et al., 2026; Efendi et al., 2026; Engkizar et al., 2026; Palinkas et al., 2015). Each category contained ten motifs. Selection considered the clarity of the documented image, the legibility of the pattern unit, and the presence of visual characteristics relevant to the category. The categories served as an organizational device rather than a claim that every motif within a category is identical.

Table 1. Motifs included in the comparative analysis

Category	Motifs
Geometric	Paradox, Beeline, Bucky, Dex, Flukes, Jonqal, Juke, Pinch, Stoic, Cubine
Organic	Bales, Bunzo, Diva Dance (Waltz), Eke, Fescu, Tagh, Printemps, Flux, Nipa, Hollis
Hybrid geometric-organic	'Nzeppel, Oof, Beelight, Echoism, Eye-Wa, Cadent, Arukas, Tortuca, Warble, Xyp

Analytical framework and procedure

Data were collected through visual observation, literature review, and documentation. Visual observation focused on point, line, plane and shape, size, direction, color, texture, structure, composition, and repetition. The literature review supplied conceptual and contextual information about Zentangle, formal design, aesthetics, and previous research. Documentation organized the images, source information, category assignments, observation tables, and annotated visual notes.

Analysis was conducted in two connected stages. First, each motif was mapped using Wong, (1972) framework. Lines were identified by type and direction; fields and shapes were identified through their boundaries; size was read as uniform, varied, or gradated; structure was read as formal or informal and as visible or implied; and repetition was read as uniform, varied, or gradated. Composition was examined through the overall distribution of units, including grid, diagonal, radial, woven, centralized, layered, spreading, and circular arrangements.

Second, the mapping results were used as evidence for an aesthetic reading based on (Djelantik, 1999). Under form, the analysis described the shapes and structures that were visually present. Under content, it interpreted impressions and visual ideas that could be supported by the arrangement; symbolic meaning was not assigned when no creator statement or contextual source was available. Under presentation, talent was operationalized as indications of visual sensitivity in proportion, spatial division, rhythm, and balance; skill was read through the precision or fluency required to construct

the pattern; and medium was identified from the documented use of paper, black ink, and pencil shading.

To improve consistency, the researcher reviewed each mapping against the source image, checked whether aesthetic interpretations were supported by formal evidence, and compared motifs first within the same category and then across categories. The procedure is summarized in Figure 1. This process produced both motif-level descriptions and category-level syntheses without converting the qualitative observations into statistical frequencies.

Fig 1. Two-stage analysis linking formal visual mapping and aesthetic interpretation

RESULT AND DISCUSSION

The analysis of thirty Zentangle motifs revealed a shared visual foundation as well as distinct characteristics among the geometric, organic, and hybrid geometric-organic categories. The results are presented through comparative tables, representative illustrations, and narrative explanations. Each finding is subsequently interpreted using Wucius Wong's principles of two-dimensional design and Anak Agung Made Djelantik's aesthetic framework, and is discussed in relation to previous studies. This structure connects the identified visual elements with the aesthetic impressions produced by each motif category and demonstrates how the findings address the objectives of the study.

A shared visual grammar: line and repetition

The comparative mapping shows that line and repetition are the most consistent components across all 30 motifs. Line performs multiple functions: it operates as a boundary, divides a field, generates direction, fills an area, produces a unit, and connects one unit to another. Repetition expands these elementary operations into a pattern. The motifs therefore do not differ because one category uses line and another does not; they differ because the lines have different geometries and because the repeated units are organized through different structures.

Point appears less consistently and generally functions as an accent, a compact fill, or a small part of a repeated unit. Fields and shapes frequently emerge indirectly through the meeting, crossing, or enclosure of lines rather than as pre-existing figures. This is particularly evident in geometric motifs, where diagonal divisions create triangles or quadrilateral fields, and in organic motifs, where paired curves create ovals, leaf-like forms, or rounded spaces. Size and direction further modify the repeated unit: uniform units reinforce regularity, while variation or gradation introduces movement and visual change.

Black and white dominate every category. Black ink establishes lines and solid areas, while untouched paper operates as active white space. Gray appears only in motifs that employ pencil shading. Texture is consequently visual rather than tactile, produced through line density, clustered marks, solid fills, and differences between compact and open areas. This restricted palette makes structural differences more legible because contrast, spacing, and repetition carry much of the aesthetic load.

Table 2. Comparative tendencies in visual elements and organization

Element	Geometric	Organic	Hybrid
Point	Occasional accent, fill, or	Occasional accent within	Limited accent or supporting

	structural marker	repeated curved units	component
Line	Straight; horizontal, vertical, and diagonal	Curved, wavy, and spiral	Combines straight, diagonal, curved, and spiral lines
Field/shape	Angular fields: square, rectangle, triangle, diamond, and related forms	Rounded fields: oval, elongated oval, semicircle, spiral, and related forms	Combines angular and rounded fields in one arrangement
Size	Uniform, varied, or gradated; divisions tend to be measurable	Uniform, varied, or gradated following the development of the curve	Geometric and organic units may remain uniform, vary, or change gradually
Direction	Clearly organized through horizontal, vertical, diagonal, central, or rotational axes	Develops through the changing orientation of curves and rounded units	Regular directions interact with more flexible organic orientation
Color	Black and white; gray in selected shaded motifs	Black and white; gray in selected shaded motifs	Black, white, and occasional gray shading
Texture	Density of lines, solid fills, and repeated angular fields	Repeated curves, spirals, and variable density	Combined density of geometric and organic components
Structure	Predominantly formal: grid, diagonal division, weave, or central organization	Often informal or implied; order is read through continuity and spacing	Formal grid or radial bases combined with organic units
Composition	Field division, grids, diagonals, centralization, and repeated units	Units align, spread, overlap, layer, or encircle a center	Regular divisions are combined with more varied unit placement
Repetition	Uniform, varied, or gradated; units tend to be measured	Uniform, varied, or gradated following changing curves and forms	Uniform, varied, and gradated repetition may coexist

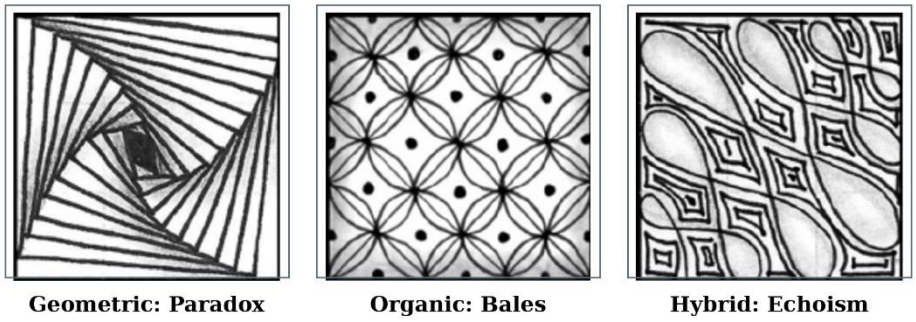

Fig 2. Representative motifs from the three categories: Paradox, Bales, and Echoism (adapted from Farmer, 2026; research documentation)

Geometric motifs: measured division and directional tension

The geometric group includes Paradox, Beeline, Bucky, Dex, Flukes, Jonqal, Juke, Pinch, Stoic, and Cubine. Straight lines, angular fields, relatively measurable spatial divisions, and formal structures dominate the group. Grid systems, diagonal arrangements, weaving, repeated shape units, and centralized structures provide a visible or implied framework. The field is often built from intersections and divisions: a square may be subdivided by diagonals, or repeated strips may generate diamonds and interlocking quadrilaterals.

In Djelantik's terms, the form of this category is defined by the relationship between straight lines, angular shapes, and orderly structures. Its content is most consistently read through impressions of order, firmness, density, rhythm, and dynamism. Order and firmness are associated with straight lines, repeated angles, and formal structures. Density arises when distances are narrow or solid black areas accumulate. Rhythm is produced by recurring intervals, while dynamism emerges through diagonal direction, rotation, shifts in unit position, and gradual changes in scale.

Paradox is a clear example of how a geometric motif can remain dynamic rather than static. Repeated diagonal lines form nested, rotating square relationships and draw attention toward a dark center. Bucky and Dex demonstrate how grid structures and diagonal subdivision generate multiple angular fields from a limited set of lines. Stoic and Cubine show that formal repetition can also produce woven or spatially suggestive effects. These examples support the argument that geometricity does not determine a single aesthetic mood; rather, the specific direction, density, and repetition of geometric elements shape the final character.

The presentation of geometric motifs implies sensitivity to proportion, division of space, central organization, and balance between repeated units. Required skills include maintaining straightness, forming consistent angles, controlling distance and scale, and sustaining the logic of the structure over the full field. Black ink and paper are sufficient to establish most motifs, with pencil shading used selectively to reinforce depth or value contrast.

Organic motifs: continuity, curvature, and flowing repetition

The organic group comprises Bales, Bunzo, Diva Dance (Waltz), Eke, Fescu, Tagh, Printemps, Flux, Nipa, and Hollis. Curved, wavy, and spiral lines dominate, producing oval, elongated, rounded, and loop-like fields. Units may align, spread, overlap, layer, or develop around a center. The structure is often informal or only indirectly visible; order is recognized through the continuity of curves, recurring distances, and the relationship among repeated rounded units rather than through an explicit grid.

The aesthetic form of the category is created through curved lines, rounded fields, directional change, and repeated growth. Its content tends

toward impressions of flexibility, flow, rhythm, and dynamism. Flexibility and flow come from continuous curves and the absence of hard angular breaks. Rhythm remains dependent on repetition, but the rhythm can feel less measured because distances, curvature, or sizes may change. Dynamism develops through shifts in direction, scale, spacing, and position. Dense curves and black fills can make an organic motif visually compact, while wider white areas create a lighter result.

Bales, for example, is constructed from paired curves that generate repeated oval fields and diamond-like negative spaces. Although its units are organic, their row-and-column placement produces an implied formal order, showing that organic form and structural regularity are not mutually exclusive. Printemps develops from repeated spirals, while Diva Dance (Waltz) uses parallel waves to establish a lateral flow. Bunzo and Flux demonstrate how layering and variable density create different types of movement from similar curvilinear resources.

The presentation of organic motifs suggests sensitivity to curvature, proportion, distance, spatial balance, and the continuity of a line as it turns. Skills involve drawing curves fluently, maintaining the relationship between adjacent lines, controlling gradual changes in size or direction, and preventing repeated units from visually collapsing into one another. As in the geometric group, paper and black ink are the principal media, with pencil used when gray shading is present.

Hybrid motifs: structural regularity combined with organic flexibility

The hybrid group consists of 'Nzeppel, OOF, Beelight, Echoism, Eye-Wa, Cadent, Arukas, Tortuca, Warble, and XYP. These motifs combine straight and curved lines, angular and rounded fields, or formal structural systems with flexible organic units. In some cases, a geometric grid or radial framework governs the placement of rounded forms. In others, geometric and organic units are positioned side by side or connected so that neither clearly dominates.

The form of the category therefore lies in the negotiation between two visual tendencies. Regular grids, diagonals, diamonds, squares, or radial divisions establish order, while curves, ovals, circles, semicircles, and soft contours modify that order. The resulting content tends to combine impressions of order, firmness, flexibility, balance, rhythm, and dynamism. Regularity and firmness arise from the structural base; flexibility emerges from curved components; rhythm and dynamism come from repetition and changes of orientation, scale, or position.

Echoism illustrates this integration through repeated elongated ovals organized diagonally, with angular spaces appearing at their intersections. Cadent uses a grid-like logic but forms the connecting units through curves. Arukas places organic curves within a radial organization, while XYP combines repeated diamonds, rounded black accents, curved fillings, and pencil shading. In such motifs, hybridity is not a simple addition of two inventories. It is a structural relationship in which one type of element can frame, fill, connect, or visually counterbalance the other.

Their presentation demands sensitivity to the proportion and balance between angular and rounded components. Skills include switching between precise straight lines and fluent curves, maintaining the readability of both kinds of forms, and controlling spacing so the pattern remains integrated. The hybrid group consequently makes the analytical value of the two-stage model especially visible: element mapping identifies the components, whereas aesthetic interpretation explains how their relationship produces balance and complexity.

Cross-category aesthetic differentiation

The comparison confirms that the categories differ most clearly in form and structure, while sharing several broader aesthetic effects. Geometric motifs privilege straightness, angularity, and formal frameworks. Organic motifs privilege curvature, rounded forms, and continuity. Hybrid motifs combine these resources through framing, filling, alternation, or balanced coexistence. Yet all three categories can be rhythmic and dynamic because repetition and directional change operate throughout the dataset. The categories should therefore be understood as tendencies within a shared visual system rather than as rigid, isolated classes.

Table 3. Aesthetic comparison based on form, content, and presentation

Aspect	Geometric	Organic	Hybrid
Form - shape	Straight lines and angular fields	Curved, wavy, spiral lines and rounded fields	Straight and curved lines; angular and rounded fields
Form - structure	Formal grid, diagonal, weave, repeated unit, or centralized structure	Often implied through alignment, spreading, layering, or circular development	Formal grid or radial structure combined with organic placement
Content - impression	Orderly, firm, dense, rhythmic, dynamic	Flexible, flowing, rhythmic, dynamic	Orderly, firm, flexible, balanced, rhythmic, dynamic
Content - visual idea	Developing straight lines and angular fields through division, variation, and repetition	Developing curves and rounded forms through changes in direction, size, spacing, and repetition	Combining organic units with formal structures or alternating angular and rounded units
Content - message	No sufficient evidence for a fixed symbolic meaning	No sufficient evidence for a fixed symbolic meaning	No sufficient evidence for a fixed symbolic meaning
Presentation - visual sensitivity	Proportion, spatial division, angles, center, and unit balance	Curvature, spacing, direction, proportion, and balance	Proportion, spatial division, and balance between geometric and organic elements
Presentation - skill	Straight-line precision, angle formation, distance, scale, and structural consistency	Curve fluency, continuity, spacing, and control of gradual change	Precision in both straight and curved lines and preservation of overall legibility
Presentation - media	Paper and black ink; pencil for selected shading	Paper and black ink; pencil for selected shading	Paper and black ink; pencil for selected shading

Theoretical and design implications

The findings refine the common assumption that a motif's category can

be determined only by the shape of its unit. Structure and repetition are equally decisive. Bales uses rounded units but an implied grid; Paradox uses angular units but rotational development; and hybrid motifs may use a formal structure to coordinate organic forms. This indicates that classification should consider at least three linked dimensions: the geometry of the line, the shape of the unit, and the organization of repetition.

The study also shows the value of linking formal mapping to aesthetic interpretation. Wong's framework prevents the analysis from relying solely on adjectives, because impressions such as firm or flowing must be connected to visible evidence. Djelantik's framework, in turn, prevents formal analysis from ending as an inventory; it asks how forms and structures create impressions and ideas and what sensitivity, skills, and media support their realization. Together, the frameworks produce a traceable movement from element to arrangement and from arrangement to aesthetic character.

This combined approach is consistent with recent developments in empirical aesthetics, which indicate that aesthetic appreciation is influenced by relationships among order, complexity, orientation, shape, and other visual properties rather than by a single formal element (Geert & Wagemans, 2021; Iigaya et al., 2021; Van Geert et al., 2023). Studies of abstract images have also shown that measurable properties of visual organization can correspond with judgments of harmony, attractiveness, and visual comfort (Geller et al., 2022; Redies & Bartho, 2023). The present study extends this discussion by demonstrating how line geometry, unit formation, spatial organization, and repetition can be connected to the aesthetic interpretation of Zentangle motifs. These dimensions may also provide a foundation for future computational analysis of pattern structure using measurements of curvature, density, symmetry, direction, and spatial distribution (Redies et al., 2025).

For contemporary design practice, the comparison offers a basis for selecting and transforming motifs rather than merely transferring them. A surface designer seeking a firm and measured character can emphasize angular units, formal grids, and consistent intervals. A more flowing character can be developed through curves, continuous direction, and variable spacing. Hybrid systems can be used when a design requires both stability and flexibility. These tendencies can inform textiles, surface pattern design, illustration, packaging, fashion, digital ornament, and generative visual systems, provided that the motif is adapted to material, scale, production technique, and function.

The identified visual dimensions may also be used as parameters for developing new pattern variations. Previous research on surface pattern design shows that nonrepresentational compositions can provide a foundation for generating patterns through the systematic organization of visual elements (Htay et al., 2025; Saidi et al., 2025; Wardaya, 2021). Research on geometric pattern construction further demonstrates that complex motifs may be decomposed and reconstructed through repetition, rotation, reflection, and transformation (Korur & Erbaş, 2025). In the context of Zentangle, designers may vary line type, unit shape, direction, spacing, scale, and repetitive structure to produce new patterns without directly reproducing existing motifs.

The analysis also clarifies the limits of symbolic interpretation. Some motifs may visually resemble leaves, eyes, woven structures, flowers, or spatial forms, but resemblance alone does not establish a creator-intended message. Because the dataset did not consistently include statements about motif origins or meanings, the study restricts content analysis to impressions and visual ideas supported by the images. This restraint is important for nonrepresentational visual research because it separates evidence-based interpretation from

unsupported attribution.

CONCLUSION

This study establishes that the visual grammar of Zentangle motifs is formed through the interrelationship of line geometry, shape, direction, spatial organization, structure, and repetition. These elements should not be interpreted separately because their arrangement determines how a motif develops into a coherent pattern. The first research objective was therefore answered through the identification of recurring visual relationships that distinguish geometric, organic, and hybrid geometric-organic motifs.

The second research objective was addressed by demonstrating that aesthetic characteristics arise from the organization of visual elements rather than from individual shapes alone. The combined use of Wucius Wong's principles of two-dimensional design and Anak Agung Made Djelantik's aesthetic framework provides a systematic method for moving from observable visual evidence to aesthetic interpretation. This approach supports a more consistent reading of nonrepresentational motifs without relying solely on subjective impressions or unsupported symbolic meanings. The findings may be applied to motif development in textiles, surface design, illustration, fashion, packaging, and digital art. Designers may use the relationships among line, shape, spacing, structure, and repetition to develop specific visual characteristics rather than merely reproducing existing motifs. Future research should examine a broader range of motifs, include direct observation of the drawing process, and explore computational analysis of curvature, density, direction, spacing, and repetition.

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