PAYKAREH
Volume 15 Issue 43 Spring 2026 Pages 45-59

Original Research Article

Identifying Compositional Elements in Painting Based on Content Analysis of Educational Resources

Hojjatollah Saadatfar[1]; **Mohsen Marasi**[2]

1. PhD student in Art Research, Faculty of Art, Shahed University, Tehran, Iran.
2. Corresponding Author, Assistant Professor, Art Research Group, Faculty of Art, Shahed University, Tehran, Iran.
E-mail: marasy@shahed.ac.ir

Received: 29 October 2025 Revised: 4 February 2026 Accepted: 13 March 2026

Abstract

Introduction: Composition and its instruction in visual arts, especially in the field of painting, are among the most fundamental educational and practical topics in this domain, to the extent that creating an image without understanding its concepts and execution principles is impossible. Therefore, the aim of this research is to formulate the main concepts and their practical methods through a content analysis of credible sources to address the existing gap in painting education. Accordingly, the main research question is: «What components and practical principles do the common compositional foundations in existing educational texts include?»

Research Method: This research is fundamental in purpose, descriptive in its method (content analysis), and qualitative in its data analysis, with data collected through library research. In the three-stage categorization analysis, among the more than 65 identified sources, after removing duplicates and based on credibility and comprehensiveness, 34 sources were selected, and recurring open codes in at least 5 sources served as the basis for extracting the main categories.

Findings: Previous sources, which seemed largely lacking in unified and complete execution methods, identified 61 practical composition codes in this study, organized into six main categories (proportion, value structure, figure-ground abstraction, cohesion, extension, and types of compositional structure), providing a comprehensive and hierarchical framework with executable details for teaching painting.

Conclusion: Based on the results of this research, composition training can be structured into objective stages. This framework provides the basis for designing an «independent course unit» in painting and moving away from trial-and-error teaching.

Keywords

Composition, Art Instruction, Painting, Content Analysis, Painting Instruction

How to cite this article: Saadatfar, H, & Marasi, M. (2026). Identifying Compositional Elements in Painting Based on Content Analysis of Educational Resources. *Paykareh*, 15(43), 45-59.
DOI: https://doi.org/10.22055/pyk.2026.20582

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Introduction and Problem Definition

The scientific and systematic instruction of composition in Iranian visual arts has so far been significantly neglected. The lack of specific syllabi, the absence of dedicated courses, and the limited availability of authored or translated resources from Latin sources indicate this educational gap. In current educational programs, topics related to composition are mainly scattered across courses such as «Fundamentals of Visual Arts», «Principles of Form», and «Image Organization», and no independent course unit has been defined for them. These topics usually serve as an introduction to the concepts of composition; however, the lack of a unified, systematic presentation of methods and structural mechanisms remains evident. The result of this situation is that the concepts of composition are mostly conveyed through personal experience and the observation of artists' works, and are less frequently addressed systematically and methodologically. An examination of Latin sources also shows that a significant portion of reputable studies in the field of composition has focused on the analysis of historical painting works. The existing educational resources, especially books with a practical approach, often lack sufficient depth or focus solely on general principles and basic foundations, offering only a limited understanding of the works of great artists, relying on trial and error. Therefore, there is a clear need to develop precise, structured educational syllabi with a high degree of comprehensiveness in practical methods for teaching the fundamentals of composition in the university system. Accordingly, the research question focuses on the common principles and components of composition found in existing educational texts. This research focuses on identifying the fundamental, universal components of composition in painting education that precede any specific style or historical period and serve as a common foundation for education across various painting schools. In this context, the present research seeks to identify and formulate the texts and patterns discussed in composition instruction through content analysis of sources and a qualitative approach, to provide a basis for offering more comprehensive solutions for teaching the fundamentals of composition.

Research Method

This research is fundamental in its objective, descriptive in its method, and qualitative in its data analysis. Data collection was conducted through library research. For this purpose, the components of composition instruction were identified and analyzed using a categorical content analysis. Qualitative content analysis organizes data through coding and theme extraction, providing a unified, in-depth understanding of the phenomenon (Dehghan Nayeri & Bahramnejad, 2025). In fact, content analysis is a research method used to draw valid, replicable inferences from textual data (Krippendorff, 2004, 9). Accordingly, the present study was conducted in two phases; in the first phase, the textual analysis method was used to collect data. For this purpose, all written sources, including books, articles, and reputable scientific theses published in print and electronically from 1826 to 2025 and available to the researcher, were considered as the research population. Among more than 65 sources related to the concept of composition, 32 were selected as the research sample after reviewing and matching conceptual similarities. The criteria for selecting and validating the sources included several components: 1. Focus on classic and foundational reference books in the field of composition and principles of form at a global level, as well as the inherent credibility of their authors based on the number of editions (a combination of old and new sources). 2. To link theoretical foundations with practical instruction, the focus is on books used as official course materials in universities in Iran and around the world. 3. Considering the sources that are mentioned as primary sources in several other

references. 4. Use of resources published by reputable academic and artistic publishers. Subsequently, purposive sampling was used until data saturation regarding the concept in question was reached. To enhance the credibility and reliability of the analysis, the strategy of «data triangulation» was employed. Accordingly, the codes and concepts extracted from Persian sources (including translated books and local publications) were compared and aligned with Latin sources (international reference books and scientific articles). This action was taken to increase the credibility and reliability of the findings by converging results from various sources. Many of the open codes were extracted from overlaps across multiple sources (at least 5), and some codes were obtained solely from one source. Ultimately, the entire analysis process was based on comparing and integrating multiple data sources. This approach ensured that the research findings were more comprehensive and credible. The step-by-step process of the research method and data validation is presented in Table 1.

Table 1. Step-by-Step Process of the Research Method and Data Validation. Source: Authors.

Step	Activity	Method	Output
1	Identification and collection of primary sources	Systematic search in scientific databases and specialized libraries with relevant keywords.	An initial list of 65 sources (books, articles, theses).
2	Final selection of resources with validation criteria	Applying inclusion and exclusion criteria: Inclusion criterion: Direct focus on teaching composition and principles of form in painting. Exclusion criteria: marginal treatment, repetitive content, incomplete access. Prioritization: Reference sources, reputable publishers, multiple editions/citations, and comprehensiveness of content.	Selection of 34 final sources for analysis
3	Qualitative content analysis and coding	In-depth study of each source and extraction of phrases, exercises, and concepts related to composition training. Each meaningful passage was recorded as an «open code».	Extraction of 61 open codes (for example, «creating root rectangles», «creating a two-tone Notan pattern»).
4	Identifying concepts	Concepts of comparing and categorizing open codes based on semantic similarity and educational purpose. Related codes were placed together.	Formation of 9 second-level concepts (for example, «frame geometry», «light value structures»).
5	Extracting themes from concepts	Analysis of the relationships between concepts and the integration of aligned concepts into main and comprehensive themes.	Extraction of 6 main themes (proportion, value structure, figure-ground abstraction, cohesion, extension, and types of compositional structure).
6	Validation of findings	Using the triangulation strategy of data (comparing findings from different sources) and continuous review	Increasing the reliability and validation of the categorization system.

Research Background

In the field of the present research, Persian-authored sources are limited. Some of these works have directly or indirectly addressed the concept of composition. For example, «Friend» (1990) in the book «Composition in Painting» outlines the stages of composition formation through practical exercises. Although this collection provides learners with the opportunity for free experimentation, trial and error, and the examination of historical works compared to other translated resources, its application remains primarily at the level of generalities and the initial familiarization of beginners with the challenges of composition due to the lack of attention to details and the subtleties of organization. «Rankin Poure» (2001) in the book «Composition in Painting» addresses topics such as balance, light and shadow, and sample analysis, but his work lacks a structured practical system. «Ocvirk et al.» (2011) address the principles of organizing image and form in «Foundations of Art: Theory and Practice». «Ayatollahi» (2013) in the book «Theoretical Foundations of Visual Arts» introduces fundamental geometric patterns, but the method of using these patterns in the process of creating a work is not explained. «Stasenko» (2021) in the book «Composition in Painting: Basics and Examples» has developed a logical, practically executable method of composition, but has focused on very limited, basic topics. «Glover» (2019) in the book «Dynamic Symmetry: The Foundation of Masterful Art» emphasizes the practical geometry in composition and provides methods for its execution. «Archer» (2023) in the book «Composition, Ideas After the Great Modern Works» focuses more on explaining the conceptual reasons for the formation of compositions and has a less instructional tone. «Agerer» (2020) in the book «Composition in Drawing» has also enumerated limited principles that remain mostly in abstract generalities. «Stebbing» (2004) also identified four common organizational principles in creating visual composition in his research and introduced them as the «universal grammar of composition». «Porovskiy» (2019), focusing on «innovative approaches in teaching composition», emphasized the necessity of improving instruction quality and developing the creativity of future art makers, and identified some educational components using a questionnaire, although no specific method was provided. «Makxkamova» (2023), also, in the article «The Role and Significance of Composition in Fine Arts in Forming the Professional Competence of Art Teachers», has provided scientific and methodological recommendations for teaching about the role of composition in shaping the professional competence of art instructors and has introduced three general types of composition and their basic rules. However, in all these articles, the concepts are situated within the framework of abstract theoretical discussions, largely rely on the same language of form, and are almost devoid of practical, executable methods. Therefore, the difference of the present research from previous sources can be expressed in several fundamental aspects: 1. Categorization and comprehensive presentation of the educational components of composition within the framework of a unified study. 2. Introduction and explanation of the implementation methods of these components at a detailed practical level. 3. The formulation of discussions in the form of an instructional hierarchy. Based on this, the necessity of conducting this research lies in creating overlap and comprehensiveness among instructional components and simultaneously presenting their theoretical and practical aspects.

Composition and Instruction

Composition is a set of methods that the artist employs to organize what they want to frame as the subject and what they wish to exclude, in order to present a unified and impactful image (Acton, 2008, 39). As a result, every artwork of any kind is essentially a composition

and is created according to its rules, principles, and regulations. It seems that precisely because of the misunderstanding regarding its importance and meaning, this field has been portrayed as a less significant independent subject and is often underestimated as an independent discipline (Porovskiy, 2019, 3). Since composition exists in all artistic disciplines, many of its terms are common in the visual arts. For example, the use of concepts such as «symmetry» and «rhythm» is also common in cinema and other visual arts (Kaldigul et al, 2015). Perhaps for this reason, many art education manuals limit themselves to general discussions of «the characteristics and importance of creativity in composition». These books usually selectively examine some of the most famous terms, rules, and techniques, often limiting themselves to showcasing examples of these rules being applied by great artists in various artistic fields. «Chernyshev» writes about this: «This situation in the field of composition theory has arisen because the knowledge available in this area has mostly been merely informational and descriptive, not going beyond the limited experience of traditional types of artistic creation, and not reaching the level of special theoretical generalizations and logical and methodological transformations» (Chernyshev, 1999, 11). The result of such a situation has been the formation of different interpretations of concepts in the theoretical foundations of «composition», the inadequate development of professional competencies, and ultimately the decline in the quality of training for painter-teachers (Porovskiy, 2019, 676). As a result, shortcomings in the teaching of composition stem in part from the fact that existing textbooks and guides in artistic composition lack theoretical content grounded in a conceptual, common framework for interpreting rules, categories, and principles. On the other hand, each educational resource covers only part of the discussion and neglects other important sections. However, studying and analyzing the most important available resources and identifying and categorizing the principles and concepts presented in them can help us design a more comprehensive model using a practical, action-research approach.

Research Findings

To answer the research question, the data obtained from the sources were analyzed and formulated. In the first stage, Persian written sources were examined, including translated books that were closely related to instructional discussions within the scope of the research. Then, all available Latin texts were reviewed, each corresponding to a part of the research. The first group: books focused on the subject of geometry or fundamental geometry, the second group: books focused on composition and structure in painting, the third group: books focused on the principles of form, design, and image fundamentals, and the fourth group: articles focused on the teaching of visual arts and visual perception in the discussion of composition. With a detailed study of the sources, an effort was made to select primary and reference materials and eliminate redundant content, choosing a number of foundational texts that encompass a significant portion of composition concepts for content analysis. These texts were summarized using components such as coding, categorization, and classification of subject-related concepts, along with conceptual tables; relevant phrases and paragraph excerpts were placed in the tables. In this method, basic compositional concepts were extracted from the chapter divisions of these books. Then, by carefully examining phrases, quotes, and theories on the methods for implementing these concepts, second-degree categories were derived that focused more on the details, explanations, and operational execution of composition and instruction. This process continued until no new data was obtained, ultimately reaching data saturation. For greater convenience and to summarize the tables, each book was assigned a code: Persian books were designated A,

and Latin books were designated B. Thus, tracking the obtained codes along with the page number will make referencing the document's text clearer. The list of sources analyzed is presented in full in Fig. 1.

Code	Publication	Translator	Publication Date	Author	Title
A1	Donyaye Now	N. Asgarzadeh	2010	Aliatov, M.	The history of painting composition
A2	Asr-e Jadid	E. Nourparvar	1990	Friend, D.	Composition in painting
A3	Mirdashti	_	2010	Niroumand, M. H.	Managing the audience's eye
A4	SAMT	M. R. Yeganehdoost	2011	Ocvirk, et al.	Foundations of art: Theory and practice
A5	Shabahang	A. Sharveh	2013	Canaday, J.	Analysis of artworks
A6	Gutenberg	M. Nazarian	2009	Alexej, M. N.	School of visual arts
A7	SAMT	_	2013	Ayatollahi, H.	Theoretical foundations of visual arts
A8	Lotus	F. Goshayesh	2001	Poore, H. R.	Composition in painting
A9	Saqi	A. Arash	2011	Triado, J. R.	Painting guide
B1	IPOX studios.		2019	Tavis Leaf Glover	Dynamic Symmetry: The Foundation of Masterful Art
B2	Sothis Press		1926	Michel Jacobs	The Art of Composition: A Simple Application of Dynamic Symmetry"
B3	Independently published		2021	Evgeniy Stasenko	Composition in Painting: Basics and Examples
B4	Dover Publications		1967	Jay Hambidge	The Elements of Dynamic Symmetry
B5	Dover Publications		2014	Charles Bouleau	The Painter's Secret Geometry: A Study of Composition in Art
B6	Chris Ridgway		2016	Chris Ridgway	Renaissance Composition and Painting Techniques A Guide for Painters
B7	Old Bond Street		1826	John Burnet	Practical Hints on Light and Shade in Painting
B8	Prentice-Hall		1989	Nathan Goldstein	Design and composition
B9	Compose		2008	Dianne Mize	*"Placing Our Images: Rabatment".*
B10	Balba Press		2014	Dianne Mize	Finding Freedom to Create: A Painter's Roadmap
B11	Prentice Hall		1948	Benjamin Martinez	Visual Forces: An Introduction to Design
B12	Dover Publications		1976	Henry Rankin Poore	Pictorial composition and the critical judgment of pictures
B13	Phaidon Press Ltd		1980	Frederick Malins	Understanding Painting: Elements of Composition
B14	Studio Vista		1920	Bernard Dunstan	Composing your paintings .
B15	IPOX studios		2014	Tavis Leaf Glover	Canon of Design: Mastering Artistic Composition
B16	-		1997	Jurate Macnoriute	Pictotial composition Schemes
B17	Windsor: Fountain Press		1984	José María Parramon	Composition in painting and drawing
B18	Chapman and Hall		1919	Richad G Hatton	Figure Composition
B19	American		1947	Elenor Parke Custis	Compositions and pictures
B20	Pitman Pub.Crop		1956	Bethers Ray	Composition in pictures
B21	Waatson-Guptill		1970	Fabri Ralph	Artist's Guide to Composition
B22	Newcastle Upon Tyne,Oriel Press		1971	Thomas Brian	Geometry in Pictorial Composition
B23	University of California Press		2009	Rudolf Arnheim	The Power of the Center: A Study of Composition in the Visual Arts
B24	B. T. Batsford LTD		1927	Pearce Cyrill	composition An Analysis of Pictoial Design
B25	Van Nostrand Rrinhold		1970	Donld W. Graham	Composition pictures

Fig.1. Selected sources for content analysis. Source: Authors.

In open coding, 61 conceptual codes were extracted from relevant sources and books. Then, the obtained codes were compared, and those that were semantically aligned in terms of the type of exercise or teaching method and referred to a single subject or approach were grouped together. In the axial coding stage, second-level concepts were extracted, resulting in a significant reduction in the number of concepts, leading to eight main concepts. In the final stage, based on the obtained concepts, the main and fundamental categories and components of the research, namely the formulation of objectives in axial coding of the compositional components, were identified, which were categorized into six categories. For naming the categories, when a category had a clear, widely recognized title in existing theoretical sources, it was used to prevent different interpretations by individuals when studying the results. From this perspective, because the topic of composition is closely related to the concepts and principles of form organization in the image, the naming of some of these categories overlaps with these principles. In the end, the proposed strategies and components for teaching and analyzing composition in painting were organized into six general categories and 61 subcategories. The main categories can serve as chapters, and the open codes can be used as precise, step-by-step, practical, and operational methods for each chapter in teaching the principles and fundamentals of composition to learners (Fig. 2).

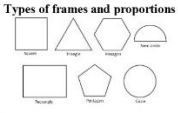
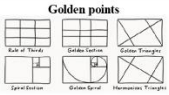
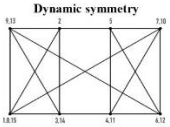
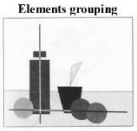
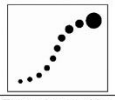
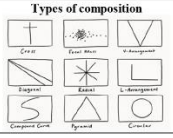
Themes	Concepts (Axial Coding)	Open codes
Proportion	**Types of frames and proportions** 	Rectangular frame, square frame, semi-square frame, circular frame, triangular frame, lozenge, multi-branch frame (A2, pp. 27, 118) The relationship between frame shape and visual content (A1, p. 124), (A23, p. 60) Types of rectangular ratios (B4, p.61), (B24, pp.54, 58) Construction of the pyramids with branches 1, 2, 3, 4 (A7, p.185), (B24, p.54), (B19, p.45) The construction of square beams without a base (B1, p.10), (B24, p.55)
	Golden points 	Drawing square grids (B1, p.5) (54. B22), (43. Page, B5) (26. Page B14) (23. Page B9) Determining focal points (emphasis) of the subject based on the highlighted points (A8, p.23), (B17, p.77), (E22, p.72)
	Dynamic symmetry 	Dynamic symmetry and the concept of Grid (B1, p. 8, 9, 11), (B19, p. 44) 8, 9, 11), (B19, p. 44) (17. Page B14), (40. Page B11) ,(203. Page B8, (40). Page B6) Method of constructing the frame structure of the foundation (B1, p.14), (B19, pp. 50, 52, 53, 54, 55) 50, 52, 53, 54, 55) The main energy directions in frame B2), p. 31) Network expansion to meet needs (B1, p.20) Working with diagonals and their importance (A1, p. 121) 121), (B4, p.33), (B23, pp.106, 107), (B20, p.63), (B22, p.80) Dominant oblique texture (B1, p.10), (B11, p. 90) The principle of golden triangle (A2, p.12), (B20, p.60), (B17, p.39)
Value Structure	**Light-shadow relationship** 	Change in the nature of light and shadow in the style of light and dark (B24, pp. 3, 4) Distribution of the dark and light independent from the subject shape (B24, pp. 7. 17) The construction of the dark and light (noton) with two tons (B14, p.35), (B3, pp. 110, 20, 19), (A4, p.176), (B13, p. 110, 20, 19), (A4, p. 176), (B13, p. 88) The construction of dark and the light with three tons (B13, p. 84), (B24, pp. 25, 23, 8), (B17, p. 34), (B25, p. 95) The construction of dark and light (notan) with five tons (A8, p.93), (B14, p.29), (B7, p.114), (B25, p.95) Classification of types of dark and light includes: dark structure, half-dark structure, light structure, half-light structure, middle-gray structure (B7, p.114), (B25, p.96) Composition with open light value and composition with closed light value (A4, p. 180), (A2, p. 54), (B20, pp. 127, 126) 127,126)
Figure-background Abstraction	**Image-background relationship** 	Examining the relationship between background layers and shape with black and white (A1, pp. 8, 68, 126), (A3, p. 41), (B8, pp. 126, 127) Analysis of the extraction of surfaces with three tangents based on three planes (B13, p.86) Analysis of geometric relations in two-dimensional form (A2, pp. 36, 27, 14, 8, 7), (A1, p. 118), (A6, p. 56) 36, 27, 14, 8, 7), (A1, p. 118), (A6, p. 56) Linear analysis of positive and negative spaces (A6, p.60), (B3, p.47), (B20, p.37) Transforming the negative space into unfilled geometric shapes (A2, pp. 58, 61, 64, 68, 140), (B6, p. 40)
Cohesion	**Elements grouping** 	Comparing and contrasting (A4, p.65), (B11, p.60) Creating complementary forms (convex and concave forms)/ separate complementary forms/ intertwined complementary forms (A2, p.119) (202. Page B23) Appropriate forms for classification (A3, p.43), (A2, p.8), (B24, p.49), (B18, p.112) Grouping with odd numbers (B6, p.30) Prioritization of groups (A8, p.84), (B12, p.108), (B24, p.49), (B18, p.116) The connection of groups with intermediate elements (binding agents) (A3, p.48) Variety in size, distortion, and deformation of shapes (A2), pp. 11, 27)
Extension	**Creating focal points and eye movement in the frame** 	Determining the path of eye movement (A3, p.50), (B24, p.23) Alignment of movement directions with the imaging network (A8, p.75) Creating focal points or centers for composition (A8, p.26) The importance of the transfer line (A8, p.28), (B24, p.45) The importance of spiral lines in creating movement (B15, p.9) Difference in the direction of movement in the right and left quadrants (B11, pp. 50, 51)
Types of Compositional Structures	**Types of composition** 	Fundamental systems of coposition structures (B23, p. 207) Triangle, horizontal (parallel), rectangle, rhombus, balanced on the sides, circles, square, star, inclined with the letter S, oblong placed in the corner of the image (asymmetrical composition with side focus), central oblong (symmetrical and centered in the image), zigzag, wave, three-pronged (branching elements into three paths), marquise, in the form of the number 8 or infinity, lozenge shape (balanced rectangle in four directions), repeated V-shaped form (under V), stepped movement upwards or downwards, semi-circle centered, complex) several patterns. (A9, p. 59), (B12, p. 107), (B16, p. 2), (B20, p. 43) 2), (B20, p.43)

Fig. 2. Coding of 32 sources used in the research using content analysis method. Source: Authors.

Main Themes

The fundamental categories of instruction in composition, based on a thorough analysis of the relevant sources, were reduced to six. These concepts are presented as fundamental assumptions of composition in instruction. By relying on these concepts, along with the implementation methods specified in the open code section, and by analyzing artists' works, the educational process can be guided, and decisions can be made when facing educational challenges. In summary, it can be said that the concept of «proportion» addresses the geometric foundation of the work; the concepts of «value structure» and «figure-ground abstraction» enhance the learner's abstract understanding; the concepts of «unity» and «extension» pertain to organizing relationships among elements, and the concept of «types of compositional structure» provides general frameworks for execution.

1. Proportion: Proportion relates to the ratio of each part to the other parts. In works of art, it is difficult to measure the relationships between sections with precision, as proportion usually becomes a matter of personal judgment. Proportional parts are measured in relation to the whole, and when a ratio is established between them, these parts create harmony and balance (Ocvirk et al., 2011, 85). This concept is the first step in explaining the topics of composition and encompasses three other subjects: the frame and its types of proportions, the golden points, and dynamic symmetry, which are considered methods related to the geometry of the frame.

1.1. The frame and its proportions: Examining the uniform frame is an important step in achieving the most suitable spatial relationships in composition (Friend, 1990, 27). As a result, the characteristics of the frame can determine the type of perception of the painting in many contexts (Aliatov, 2010, 124). From this perspective, five titles have been considered for familiarization with this subject and its construction rules.

1.1.1. Types of frames (rectangular frame, square frame, quasi-square frame, circular frame, triangular frame, diamond frame, polygonal frame): Among all the irregular shapes of canvases, rectangular, square, and quasi-square shapes are more commonly used as standard forms. Unusual shapes also have a specific status and function in the works of some contemporary painters (Friend, 1990, 118).

2.1.1. The relationship between the frame shape and visual content: Each visual format creates a network of internal tensions and attractions that the content must balance with. On the other hand, each side of the frame also exerts an attraction on the content (Arnheim, 2009, 60). Describing the force of each frame and its four directions is one of the most important topics in this section.

1.1.3. Types of rectangular ratios: These ratios fall into three categories: square or static rectangles, root rectangles, and golden rectangles.

1.1.4. Construction of rectangles with roots 1, 2, 3, and 4: In rectangular quadrilateral shapes, the shorter side is the scale and standard for other ratios. The rectangles that we refer to as the foundational range, with one exception, are all rectangles that are invariably constructed either from the diagonal of a square or the diagonal of half a square (Ayatollahi, 2013, 184). These are the famous root rectangles.

1.1.5. Constructing rootless (static) rectangles from squares: There are several rectangles that an artist can use that are very important, but they are not considered root rectangles, and yet, they are similarly constructed from squares (Glover, 2019, 10). These rectangles have length-to-width ratios that do not exhibit a measurable relationship. Therefore, in design, they lack dynamism and the property of natural growth (Hambidge, 1967, 21).

2.1. Golden points: Since ancient times, many philosophers, artists, and mathematicians have been interested in the golden ratio, which Renaissance writers called the «divine proportion». «Lucas Pacioli», the Italian mathematician, described the golden ratio as aesthetically pleasing and wrote the treatise «Divine Proportion» on the subject. Compositional structures based on ratios and golden points are highly compatible with human visual physiology and can readily evoke aesthetic preferences and visual cognitive processing (Li, 2025, 191). The two sections below are intended to support the initial understanding and implementation of this concept.

1.2.1. How to draw the rabatment of the rectangle: Kimberly Elam, in her book «Geometry and Design», refers to the golden rectangle as the «lazy man's golden section». It is a method of dividing the frame; in this way, squares equal to the rectangle's width are

drawn from both the left and right sides of the frame. This drawing also applies in the vertical orientation (Elam, 2011).

1.2.2. Determining focal points of the subject based on golden points: The primary and important elements of the image can be placed in one of the two key squares or on their inner sides to identify the desired center. Secondary elements of the image can also be placed outside the focal square (Mize, 2014, 23).

3.1. Dynamic symmetry: A type of harmonic grid and a method for dividing the canvas with lines based on nodal points that align with the golden ratio. This grid is used as a guide in arranging compositions and in placing and aligning objects in painting (Ridgway, 2016, 40). This grid has intersecting lines that allow the subject to be drawn in a wide variety of ways (Glover, 2019, 11). This section identifies the most important part of the image's skeleton and infrastructure.

1.3.1. The method of constructing a basic armature: The construction method is as follows: in the first stage, based on drawing the diagonals of both sides of the frame and then drawing lines perpendicular to the diagonals, the key balance points of the composition are determined. In the next stage, the rectangle is divided into several smaller triangles and rectangles using the intersection points of the diagonals and opposite lines (Glover, 2019, 69).

1.3.2. Finding energy directions in the frame: By drawing a grid of root rectangles and their diagonal lines, the paths of visual flow in the frame are identified, and the intersection points of the lines indicate the concentration and directions of energy, which are primarily shown as triangles based on the main diagonals.

1.3.3. Network expansion to meet the need: To align more details with the base structure, its expansion is essential. Each visual work does not necessarily have the same ratio as the base structure. Using the existing lines of symmetry, smaller rectangles can be created within the grid. This is done by drawing lines parallel to the diagonals and perpendicular lines (Glover, 2019, 70).

1.3.4. Working with diagonals and their importance: In practice, the artist's greatest reliance is on diagonal lines. For design purposes, the most important element of a rectangle is its diagonal (Hambidge, 1967, 33).

1.3.5. Dominant diagonal: The diagonal line that extends from the bottom left corner to the top right corner is called the Dexter diagonal or Baroque, and the line opposite it is the Sinister diagonal. These two are also known as ascending and descending diagonals. Usually, considering the direction of the main energy flow in the frame, the artist chooses one of these lines as the dominant diagonal. These two diagonals are not always the exact geometric diagonals of the frame and may deviate slightly from the actual diagonal depending on the golden ratios or the type of dynamic symmetry.

1.3.6. Golden Triangle Rule: The Golden Triangle Rule is a general guideline in visual composition for photographs or paintings, especially in works that contain elements following diagonal lines.

2. Value structure: Light and dark exist in all designs and images, but light and shadow are the objective manifestation of reality and are not present in all images. Therefore, light and shadow, due to their pervasive nature, are fundamental terms for any serious discussion about tone in composition. In fact, the objective translation of light and shadow and its organization within an image will aid in the abstract understanding of the image's composition. The transfer of this concept is accompanied by seven titles for its practical instruction, each of which will provide the learner with a specific understanding of the value structure.

2.1. Changing the nature of light and shadow to a pattern of light and dark: One of the most challenging tasks for the teacher is to divert the learner's attention from the characteristics of gradation and tonality and direct it toward other factors that play a role in the light and dark structure of the work. In fact, gradation related to light and shadow creates a prominent and three-dimensional feeling; therefore, the possibility of using gradation should be provided in a more abstract manner, so that the two-dimensional aspect of the work is preserved without getting too caught up in tonal variety (Pearce, 1927, 3-17).

2.2. Distribution of light and dark independent of the shape of the subject: The distribution of light and dark shapes should be perceived as independently as possible from the shape, because the sense of shape in most learners is so dominant that it distracts their attention from the proper distribution of light and dark (Cyrill, 1927, 27).

2.3. Creating a light and dark pattern (notan) with two tones: Notan is used in composition to reveal the balance between light and darkness. By converting an image's elements to black and white, this balance can be perceived. When positive and negative shapes are compared, the image's underlying composition and its strong and weak aspects become apparent (Stasenko, 2021, 19).

2.4. Creating a light and dark pattern with three tones: Using three tones of black, white, and middle gray makes the issue of connecting surfaces easier, because the eye can move across the pattern through the middle tone, as a unifying factor (Cyrill, 1927, 23). The middle tone is considered the most important part for forming tonality and color.

2.5. Creating a light and dark pattern (notan) with five tones: In order to distinguish between adjacent values in the image and simultaneously observe a greater variety and distribution of tones, there must be a noticeable difference between them. This difference is known as the "intermediate distance". If black and white are preserved for the main emphases, usually five values are sufficient for most works (Graham, 1970, 95).

2.6. Classification of types of light and dark patterns (dark structure, semi-dark structure, light structure, semi-light structure, mid-gray structure): Before examining light and shadow in more complex situations, it is better to focus on more obvious and tangible combinations. For better understanding, these combinations can be divided into five general patterns (Burnet, 1826, 114). Understanding these five patterns is, in fact, a kind of formulation of visual reality as perceivable semantic patterns.

2.7. Composition with open light value and composition with closed light value: The artist, in the process of integrating the structure of light value with the image, must be aware of two approaches in the development of the light value pattern: compositions with open light value and compositions with closed light value. In closed value light compositions, the value of light is confined to the edges and borders of the shape. In open light-value compositions, light values can cross the boundaries of the shape (Ocvirk et al., 2011, 180).

3. Figure-ground abstraction: Figure and ground are considered important principles in the organization of perception. At every moment of perception, a shape is placed on the background. To understand the structure of the form and the space we call an image, we must distinguish between the two-dimensional and three-dimensional areas of space and ultimately separate the form, distinct from the space, from its environment or background. Space or background takes on both position and form through the presence of shape. Therefore, the challenge of establishing a relationship between context and form is fundamental to understanding an image's structure (Graham, 1970, 25). This concept, like value structure, helps enhance the learner's abstract understanding of the image. This concept will be expressed through five training methods that rely on the elements of surface and line.

3.1. Examining the relationship between background and shape in black and white: The important point is that, first, the relationships of two-dimensional shapes with each other must be identified. One useful method is to first arrange the image to be completed with perfect balance in a composition of flat light and dark surfaces (Rankin Poure, 2001, 95).
3.2. Abstract analysis of surfaces with three tonalities based on three planes: In this method, tone is used to create a sense of distance and planning in the elements. Using a five-tone scale, the elements of the image are abstractly divided into three planes: foreground, middle distance, and background, which provides a schematic understanding of atmospheric perspective (Malins, 1980, 86).
3.3. Analysis of geometric relationships in two dimensions: Two-dimensional geometric relationships strengthen the structure of the image and give the entire work form and movement (Friend, 1990, 36).
3.4. Linear analysis of positive and negative space: Linear composition is a method of image creation based on line and limited space. The most important elements are the filled sections (dense with line) and the empty sections (open) (Stasenko, 2021, 47).
3.5. Transforming negative space into complex geometric shapes: Complex negative shapes play an important role in integrating two-dimensional space and share the following underlying characteristic (Friend, 1990, 64).
4. Cohesion and integration (unity): The grand goal of composition is to always ensure unity; that is, to transform a collection of elements into a cohesive whole (Poore, 1976, 108). A quality essential to a good painting is that everything depicted on the canvas or board is arranged so as to result in harmonious agreement and unity (Barasch, 2001, 482-483). From the formulation of these definitions, it can be understood that unity and coherence among elements are fundamental principles in the composition of an image.
4.1. Similarity and proximity: The law of proximity, meaning the relative closeness of elements, can create a visual connection between them. Also, the law of similarity holds that if visual elements are similar in size or shape, they can visually connect (Ocvirk et al., 2011, 65).
4.2. Creating complementary forms (convex and concave forms)/ separate complementary forms/ intertwined complementary forms: «Arnheim» says, «All visible forms are continuously accompanied by expansion and contraction, contrast and harmony, attack and retreat» (Friend, 1990, 119). Therefore, shapes can complement each other in both visual forces and rhythm and direction. This complementary state, like puzzle pieces, can be intertwined or kept apart.
4.3. Suitable shapes for grouping: The best shapes for grouping are oval and pyramid forms. In each of the lines of these shapes, there is an opportunity for a focal center, which is always important (Poore, 1976, 107).
4.4. Grouping with odd numbers: Group elements in threes or odd numbers. Try to have an odd number of objects rather than an even number (Ridgway, 2016, 30).
4.5. Prioritizing groups: Almost all successful group paintings have benefited from the principle of sacrifice (one group against another) (Rankin Poure, 2001, 84). Therefore, to avoid monotony, it is necessary for one of the groups to be prioritized in terms of position or visual emphasis.
4.6. Connection of groups with intermediary elements (linking forms): Shapes that are connected by an element such as a shape, line, or color are perceived as a single unit (Niroumand, 2010, 48). As a result, after grouping the elements, their connection through intermediary elements plays a fundamental role in creating unity.

4.7. Variation in size, distortion, and deformation of shapes: Variation in size and distortion of shapes from their actual forms or distortion is permitted in visual art. For the objects in the entire work to have harmonious relationships with one another, their forms are altered (Friend, 1990, 11).

5. Principle of Continuity (extension): A concept in visual perception where the brain interprets visual elements as part of a continuous path or shape, even when they may be somewhat ambiguous or discontinuous, manifesting in various forms. Perceptual organization is shaped so that each linear unit tends to extend along a consistent path, and lines and shapes that convey continuous movement and direction are seen together (Niroumand, 2010, 50).

5.1. Determining the path of eye movement (gamut): Gamut in composition means that the artist uses a limited number of directions in their image. By limiting the number of directions an artist uses, the image becomes focused. Skilled artists rarely use more than five or six different directions (Pearce, 1927, 23).

5.2. Alignment of movement directions with the image grid: Structural lines are present in the initial form of every image. Connecting lines also naturally bond with such a form. These two types of line, structural and connective, are particularly of interest to artists who work with systematic and scientific methods (Rankin Poure, 2001, 75). Therefore, the directions of movement in the image are often derived from the structure of the dynamic symmetry grid.

5.3. Creating points of emphasis or centers in composition: Although the human eye follows a line more easily, in many cases, spots or points of emphasis have similar power and impact. The aesthetic value of a point is often greater than that of a straight line (Rankin Poure, 2001, 26).

5.4. The importance of the transitional line: When force lines collide with each other in terms of direction, they must be reconciled through connecting or transitional lines. In fact, the power and impact of the transitional line in composition are so significant that it must be used with precision and caution (Rankin Poure, 2001, 28).

5.5. The importance of spiral lines in creating movement: The spiral is also known as a line of continuity and plays an effective role in connecting the background to the foreground.

5.6. Difference in movement direction in the right and left of the frame: Forms on the right block the natural flow of the eye's movement from left to right. In composition, if the dominant weight is on the right, it often appears denser and more closed, creating the impression that the eye is moving against the flow of the visual stream (Martinez, 1948, 50-51).

6. Types of compositional structure: If the final layout of a composition is not initially planable for the learner, a general structure can be chosen as the main strategy for organizing the work. These structures encompass a range from basic forms to composite and symbolic patterns. In a broad classification, four main states have been introduced, and in another categorization, 25 compositional structures have been selected. This number provides a useful and relatively extensive set of completely different compositional structures; without being overly specific and only showing minor different nuances, or on the other hand, being overly general.

6.1. Fundamental systems of composition: «Rudolf Arnheim» states in his book «The Power of the Center» that our perception of the world is shaped by the interaction of two major spatial systems: the Cartesian or grid system (vertical and horizontal) and the cosmic or centripetal system (circular), neither of which is sufficient on its own. In fact, these

systems are the frameworks that the mind uses to organize visual experience and form the foundations of artistic composition (Arnheim, 2009, 207). Arnheim, in his analysis of artworks, extends these two systems into four practical forms: vertical, horizontal, diagonal, and central (radial). These four foundational systems, whether used independently or in combination, can serve as the basis for any compositional structure.

6.2. Various types of composition in terms of structure and arrangement of elements include: triangular, horizontal (row-wise), diagonal, intersecting, balanced on both sides, circular, cross-shaped, radial, S-curve, rectangle shifted to the corner of the image (asymmetrical composition with lateral focus), central rectangle (symmetrical and centered in the middle of the image), zigzag, wavy, three-pronged (branching elements into three paths), spiral, in the shape of the number 8 or infinity, diamond-shaped (diagonal balance in four directions), repetition of angular forms (V under V), stepped (gradual movement up or down), semicircle concentric, complex (multiple patterns). It is important to note that in a composition, two, three, or several structures may be used simultaneously; however, in most cases, there is a dominant structure that becomes more apparent. Learning to recognize such cues in the organization of elements helps in better understanding composition and allows for observing these potentials in surrounding subjects.

Conclusion

The present study aimed to identify the components of composition instruction in painting and to provide a systematic framework by analyzing over 34 credible Persian and Latin sources. The results show that composition not only creates visual coherence in the artwork but also serves as an important tool for conveying the artist's thoughts and creativity. Data analysis using the grounded theory method and the coding process resulted in the extraction of 61 open codes, which were organized into six main categories: proportion, value structure, figure-ground abstraction, cohesion, extension, and types of compositional structure. Each of these categories plays an important role in the practical instruction of composition. The category of «proportion» focuses on the geometric foundations of the frame, golden ratios, and dynamic symmetry, shaping the visual infrastructure of the work. «The value structure enhances the learner's ability to organize light and shadow and create visual balance». «Figure-ground abstraction» and «cohesion» help in understanding and organizing the relationships among visual elements and in creating the overall unity of the work. «Extension» guides the eye's movement and the continuity of elements, while «types of compositional structure» enable the planning and execution of diverse and purposeful arrangements. Overall, teaching composition without understanding and practicing its practical components will be incomplete. The presentation of these six categories, along with 61 practical sub-components, can serve as the basis for designing an independent, structured course unit in the field of painting.

Author Contributions

This article is derived from the first author's doctoral dissertation in Art Research, entitled «Designing a Composition Educational Model for Undergraduate Painting Students Based on the General Educational Design Model», and supervised by the second author at Shahid Beheshti University.

Acknowledgment

This research has no acknowledgments.

Conflict of Interest

The author (s) declare that there are no potential conflicts of interest related to this research, in writing, and publication of this article

Research Funding

The author (s) did not receive any financial support for conducting the research, writing up, and publication of this article.

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