

The Effectiveness of Employing Typography in Designing Holograms and Murals to Spruce up Outdoors: A Case Study of Jordanian Cities

Basim Abbas Ali AlObaydi¹, Robin Mezher² and Haneen Al-Khatib³

Abstract

The paper examines the degree of effectiveness of employing typography in designing holograms and murals to spruce up outdoors as a case study of Jordanian cities and the related challenges. The descriptive approach is adopted to review and provide data on the demographic characteristics of the research sample. The research population consists of all faculty members in private universities offering graphic design programs in Jordan. The results indicate that the use of typography as artistic holograms and murals to decorate outdoor spaces in Jordanian cities is of high importance and use. Also, the findings show that using typography in designing holograms and murals contributes to filling the void spaces and improving the appearance of the courtyards. The results also demonstrate that employing typography as a design art to decorate public spaces can enhance national belonging and national positivity among local communities. Given the results, the research recommends paying attention to the effectiveness of employing typography in designing holograms and murals to spruce up outdoors in Jordanian and non-Jordanian cities in future research.

Keywords: Artistic Murals, Design, Holograms, Outdoors, Typography.

INTRODUCTION

Cities are a living image of any society, reflecting its culture, history, character, and identity. Of the factors that increase the attractiveness of cities and make them more good-looking and magnificent is beautifying public squares with art, sculptures, holograms, and artistic murals distinguished by their delightful colors, details, and formations. Jordanian cities have recently witnessed an increasing interest in beautifying public spaces due to their vital role in reflecting the cultural and historical identity of Jordan and improving the appearance of cities, which contributes to attracting tourists, promoting economic growth, and improving the quality of life in cities (Brennan, 2019).

Graphically speaking, graphic designers play a crucial role in creating these designs as they have the skills and experience needed to combine different graphic elements and visual styles to produce aesthetically meaningful designs. The designer must assume responsibility for creating artwork and designs that suit the culture and identity of the community and meet the requirements of the target place for beautification (Abdalla, Aljhome, & Abdulhadi, 2022). The making of these artworks and designs can be achieved through the designer's artistic skills and innovative abilities to express ideas beautifully and uniquely, transform the idea into a distinctive work of art, and provide unique designs distinguished by splendor and creativity (Li & Zhang, 2020).

Public art is represented by murals, holograms, sculptures, and statues and engages with audiences outside of museums and in the public realm. Public artworks establish a common identity based on the city's cultural context and enhance citizens' sense of belonging. Artworks in the public realm are a tool for building community and encouraging urban regeneration, offering a combination of aesthetic values and social identity to revitalize public spaces. Arts and culture play a major role in developing tourism opportunities and enhancing the public image of the city (Gattupalli, 2022).

Typography is one of the most widespread arts in recent years and is considered a significant element in the world of graphic design. Typography also uses letters and shapes and arranges them artistically and attractively to create an attractive and effective design that reflects the moral of the text (Jaafar & Ismail, 2022). Typography adds charm to texts, increases their beauty and elegance, and makes them more readable and understandable,

¹ Al-Zaytoonah University of Jordan, Email: basimalobaydi86@gmail.com, ORCID: 0000-0001-5851-3851

² Al-Zaytoonah University of Jordan

³ Islamic Community College

which improves the quality of messages and increases their attraction and influence on the recipient. This art requires creativity, skill, imagination, and working to find the appropriate balance between different elements to obtain a unique and innovative design (Alqudah, 2023). Beautifying public squares with artistic murals is also one of the contemporary trends used to transform public spaces into open art galleries.

City art murals can provide a colorful and lively touch and a unique artistic expression. Colors, shapes, and graphics can be used to transform ordinary walls into cheerful and attractive pieces of art. Art murals are also a method to communicate with the community, as they can be used to spread important messages and issues and promote social awareness (Zhou, 2022). The remainder of the paper is structured as follows: Section two provides an overview of the literature review, while section three provides the research problem. Section four presents the conceptual framework while section five presents research significance. Section six presents research hypotheses, while section seven offers research limitations. The method adopted is given in section eight. Section nine provides results and discussion. Subsequently, section ten presents research hypotheses testing. Section eleven makes concluding remarks, while section twelve provides recommendations.

LITERATURE REVIEW

Research has documented the effectiveness of employing typography in designing various forms of murals, models, and holograms. Zhudi, Diya, and Hongmiao (2022) pinpoint the innovative application of Dunhuang mural patterns in the design of cultural creativity of Dunhuang murals is abundant in art. For example, the tiger is a vital animal element that is well-represented in the design of cultural and creative products. The tiger elements on the murals not only have the nature of the tiger totem in Chinese traditional culture but also have profound religious connotations and convey unique artistic characteristics. Accordingly, the paper takes the tiger elements in part of the murals in Dunhuang as the starting point and focuses on the cultural connotation of the tiger elements in the Dunhuang murals.

With that, the required data is collected to understand sales of cultural and creative products. Furthermore, a survey is conducted to find out the shortcomings of cultural and creative products and consumer opinions. Suggestions for the design, marketing, and cultural re-creation of Dunhuang tiger items are proposed as a research outcome. The study result has contributed to enriching the research contents in the field of Dunhuang cultural creativity and providing new ideas and methods for designing Dunhuang cultural creativity products.

From a critical lens, Mezzadri (2021) focuses on providing some key critical reflections related to the current debate on the conservation and restoration of contemporary murals in the area of street and urban art. The processes considered for this type of wall coating are related to the concept of preventive conservation or some action to reduce future deterioration related to the external context. The idea of protecting urban and street murals also arises from two main issues: their social recognition as works of art and beloved icons in communities or better testimonies that disseminate the values of civilization which is the definition of cultural heritage from the last decades of the twentieth century to the present.

On the other hand, there is the necessity of finding a way to preserve their artistic messages in the ephemeral urban context. Developing a correct plan for the conservation and restoration of these works of art located in the external context needs to take into account - more than ever - the strict rules, the relationship between their materials, their environment, and even the viewer. This axiom is closely related to the law of the street, where all breakdown processes are often unpredictable. In this area, the research of the Istituto Centrale per il Restauro (ICR) focuses on an ongoing project to develop some experiments and tests using innovative materials for preservation and a common glossary of terms to define specific forms of damage in murals often based on “plastic on the wall”. The ultimate goal could be to define institutional guidelines for the preservation of contemporary urban and street murals from the perspective of an engagement and sponsorship program.

From a geographical perspective, Murtono and Wijaya (2021) examine the visual display war in geographical public spaces between murals and branded outdoor advertising in Central Java, Indonesia. Regarding the representation of space and places of representation using Lefebvre's perspective of space as representation, the discourse of space and the texts on murals and branded spaces are dissected through the metaphor of the knife of social semiotic analysis. The three space materials examined demonstrate the wars between murals and

branded spaces, both in placement, size, layout, and shape of the space material. The representation that exists in each space material also has implications for social discourse in terms of scope, content, and style of discourse.

Of the conclusions attained is that amidst the spread of brand messages in public spaces, the mural aims to take a position as an oasis of social critique and guardian of culture and symbols of public heroes through the medium of guerrilla space. The mural shows that something is missing or may be removed in urban public spaces such as the discourse on morals and customs, etiquette, traditional narratives, and wisdom. The study results give an insight into the fact that the city needs a fresh breath of public discourse through more spacious spaces so as not to drown in oppressive branded spaces.

Using typographical art, Siddiq (2019) identifies the impact of using typography in establishing the Egyptian visual identity, promoting Egyptian tourism and its impact on the recipient, and improving Egyptian tourism and cultural returns. The analytical method and the experimental method are used to achieve the study objectives. A group of advertising models used for typography is analyzed, along with an experiment in designing a group of advertising models using typography in Egyptian tourism advertisements. The results indicate a positive impact of the use of typography in tourism advertisements on the Egyptian visual identity. Given the results, the study recommends paying attention to tourism advertisements due to their significant impact on Egyptian identity and thus on tourism and Egyptian national income in general.

Research Problem

Plenty of significant factors increase the attractiveness of cities and make them more fine-looking and superb, such as beautifying public squares with art, holograms, sculptures, and artistic murals. Of late, Jordanian cities have witnessed an increasing interest in beautifying public places due to their vital role in reflecting the cultural and historical identity of Jordan and improving the appearance of cities, which contributes to attracting tourists and promoting economic growth.

Frankly speaking, Jordanian cities suffer from the challenges of beautifying the outdoors and enhancing its aesthetics. Among the methods used is the use of typographic formation in the design of artistic models, holograms, and murals. However, there is still a need to understand the effectiveness of this technology in improving the aesthetics of the outdoors due to the presence of artistic works and formations that are inappropriate for Jordanian culture. Some random shapes and lines have no significance or meaning, along with losing aesthetic standards through the use of text and design with its elements, foundations, and relationships.

With the importance of typography as a modern art with significance and meaning, and the necessity of paying attention to city murals, holograms, and models to reflect the culture and identity of society and attract tourists, the research problem is reflected in identifying the degree of effectiveness of employing typography in designing holograms and murals to spruce up outdoors as a case study of Jordanian cities and the related challenges from the perspective of faculty members in graphic design programs in private universities in Jordan.

Conceptual Framework

The conceptual framework of the current research requires addressing the concept of typography, typography, and calligraphy in graphic design, typography, and spaces, the concept of public spaces, and the role of typography in occupying space.

Concept of Typography

Typography is a critical design element that has a major impact on how we perceive and interact with written communication. Typography is also the art and technique of arranging type to make written language readable and attractive when displayed. Along with its importance in graphic design and communication, it can communicate a range of feelings and meanings through the visual representation of text. Typography is also considered a form of art that relies heavily on the choice of fonts in the design process. It is a powerful tool in advertising design due to its ability to convey complex meanings that can influence the audience, as it requires

a deep understanding of audience engagement, the characteristics of different typography styles, and their design principles.

According to Siddiq (2019), typography is crucial to the visual expression of words and ideas and has a timeless quality that continues to evolve and change and remains an indispensable aspect of design that cannot be overlooked. It is a visual artistic technique in creating and designing written words and letters that involves coordinating elements to make them visually appealing so that they are in keeping with the design concept. This technique also includes coordinating letters from various aspects, such as selecting a font that complements the design, determining the appropriate size and thickness of lines, spacing between letters, and adjusting the distance between adjacent lines.

Additionally, modifying and adding appropriate effects consistent with the overall design is crucial to creating a cohesive and aesthetically pleasing design that effectively conveys the intended message to the audience (Houria, 2018). On the other hand, Ambrose, Harris, & Ball (2019) assert that typography reflects the art and technique of arranging typing to make the written language readable and attractive when displayed. It includes specifying point sizes, line lengths, line spacing, character spacing, and adjusting the space between pairs of characters. Typography also involves the use of colors, images, and other design elements to enhance the visual appearance and readability of written text.

Typography and Calligraphy in Graphic Design

The world of graphic design has two primary methods of visual communication: typography and calligraphy. Understanding the difference between these two styles is crucial for any designer looking to create effective and impactful designs. Typography focuses on using text as the primary element using different fonts, sizes, and styles to convey a message on one hand. On the other hand, calligraphy involves creating illustrations or drawings using lines, shapes, and negative space, often with minimal color. However, the difference between the two types of writing can be understood through two different key features, such as the concept which is the first feature, as typographic style refers to the art and technique of arranging typing to make the written language readable and attractive. Moreover, it includes selecting fonts, point sizes, line lengths, line spacing, and character spacing, among other elements. Typography also plays an important role in communicating messages effectively, as it can affect the tone and mood of the text. Appropriate use of typography helps convey a sense of professionalism, formality, playfulness, or any other desired feeling (Hunt, 2020).

Calligraphy refers to the art or skill of writing by hand, usually with a pencil, as it is the practice of creating written language in a way that is legible and aesthetically pleasing. Good calligraphy includes several elements together with consistent letter formation, proper spacing between letters and words, proper alignment, and appropriate use of punctuation and capitalization. It can also include changing the thickness of lines or borders, as well as the angle of letters (Sull, 2018). The second feature in terms of classification is that the typographic formation includes three forms:

Impactful Typography: It is a design technique that uses expressive typefaces to create an impactful, eye-catching message. It is also a powerful way to express emotion, elicit a response, or make a statement. Impactful typography typically involves the use of heavy fonts, large sizes, and high-contrast colors (Houria, 2018).

3D Typography: It is a design technique that adds depth and dimension to text, creating a visual illusion of characters emerging from the design. This style of typography is often used in advertising, branding, and other graphic design projects to create a unique and attractive effect (Billard, 2018).

Kinetic Typography: It is a design technique that has become increasingly powerful and popular in the world of motion graphics. It involves using animated text to create a more dynamic and engaging visual experience for the viewer (Brownie, 2014).

Typography and Spaces

Typography is the main element of communication in design work within public and private spaces, where letters are the only effective way to visualize text. This concept can be expressed through typographic formation displayed in public spaces. Typography can be used to provide information such as signage, guide people to

find directions, and display in a place or as a large display in a public place which encourages closer inspection of the area. Compared to typography in smaller areas such as books or posters, typography for public spaces has different rules depending on the size and material of the typography itself.

The relationship between space and public interest is also an important consideration as a large typography can have a significant impact with the use of contrasting colors or materials to highlight the message presented in the visual text. Typography of public places has a long history starting with its use as a road marking and later evolving into landmarks. Typography was also used as a city marker to commemorate great leaders or important events, such as Trajan's Column, which honors the victory of the Roman Emperor Trajan in the Roman War of Dacia. Wall phrases arranged in typographic arrangements can be used to highlight events and communicate ideas in public spaces (Putra & Apsari, 2022).

Concept of Public Spaces

Unlike private spaces for residence and work, the term "public space" refers to public areas owned and managed by the public sector, such as streets, parks, and squares. However, with urban development and the emergence of semi-public spaces managed in partnerships between the public and private sectors, questions have been raised about the legal definition of public space. Although public space is still open to the public, it is different from the public sphere of the state and its divisions. Therefore, from a legal standpoint, the concept of public space can be considered closer to the traditional definition despite the significance of property laws in defining the current boundaries of public space (Blackmar, 2006).

Generally speaking, public spaces are open environments available to the public regardless of ownership or purpose. These spaces are designed to promote social interaction, community engagement, and cultural exchange regardless of individuals' economic or social background. Public spaces can take various forms such as parks, squares, streets, markets, and public buildings. Public spaces are an essential part of urban environments and contribute to the well-being of city dwellers by providing opportunities for recreation, relaxation, and connection with nature as well as public activities and events. Public spaces also contribute to improving the aesthetic appearance of the city by integrating green spaces, public arts, and unique architectural design.

Notably, the design, management, and maintenance of public spaces play a crucial role in creating safe and accessible environments for all and promoting social cohesion and community participation. Paying attention to public spaces is an essential part of developing sustainable cities and enhancing the quality of life in local communities (Shrinagesh & Markandey, 2016). Public spaces are essential components of urban environments since they provide social and cultural gathering places that foster community participation and interaction. Culture today plays an important role in the design of things, as the role of culture is no longer limited to the aspect of satisfaction and acceptance by individuals, but rather extends to aesthetic aspects (Alsswey et al., 2020).

Locally, In Jordan, public spaces have been an integral part of the country's urban fabric for periods, with their importance recognized by the government, urban planners, and designers. The concept of public space in Jordan refers to any space that is accessible and available to the public regardless of ownership or purpose. Public spaces in Jordan can be classified into different types including streets, parks, squares, and markets, and the shape of the city is often associated with public spaces. There are many beautiful cities in Jordan, and the relationship between the form of the city and its public spaces is complex as well-designed public spaces can contribute to the public life of the city, and improve the quality of life for its residents (Grüning, 2017).

Role of Typography in Occupying Space

With the growing interest in place-making in spatial planning and design, many cities in different countries tend to experience an unprecedented transformation of urban space showcasing different styles of artistic performances open to the public. As a visual art, mural painting can be considered one of the leading creative activities in the public sphere of cities. The increasing popularity of murals as public artwork has made local governments inclined to introduce some programs to guide the performance of art within the highly spatial

condition of the city fabric. Combined with its vibrant cosmopolitan culture, supporting individuals' artistic creativity and the right to self-expression is shown to become crucial strategies for current urban policies aimed at the sustainable transformation of public spaces in cities (Hall & Robertson, 2001).

Occupying the typography of public space is a means that shapes the relationship between humans and their surroundings, as there are different forms of relationships between humans and cities. Public space designs are usually associated with architectural functions, shapes, volumes, and materials used in 3-dimensional forms modified according to the building material elements. Depending on the context, text can be arranged to provide information such as signs directing people to find their way somewhere or relating to quotes displayed in public spaces. The dramatic effect can be achieved through large size and color contrast structures. All of these above concepts accompany the ideas behind the visual language of text through typography.

Simply put, the ideas contained in these texts can be inspiring, making the text in the space more than just a simple 2-dimensional decoration on the wall. Similar to public art, environmental typography functions as part of a system of signs and symbols, juxtaposing the environment with another place and time. Therefore, this contrast or convergence between environments takes the viewer on a journey from local reality to a new space. Within the scope of this research paper, the mural acts as a city landmark (Putra & Apsari, 2022).

Research Significance

The research problem is reflected in directing efforts to beautify the outdoors in Jordanian cities and improve their aesthetics by making optimal use of typographic formation in the design of artistic models, holograms, and murals. It also contributes to enhancing awareness of the significance of art and design in creating an inspiring and attractive urban environment for the local community and visitors.

Research Hypotheses

Given the study problem, its objectives, and its significance, the study hypotheses can be read as follows:

Hypothesis (1): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the gender variable.

Hypothesis (2): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the age variable.

Hypothesis (3): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the academic qualification variable.

Hypothesis (4): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the number of years of experience variable.

Research Limitations

The findings of this study can be generalized in light of the following limitations:

Human Limitations: This research is limited to all faculty members in faculties of design in private universities offering a graphic design program.

Spatial Limitations: This research is conducted at the private universities in Jordan.

Temporal Limitations: This research is conducted in the second semester of the academic year 2022/2023.

Objective Limitations: The research is limited to the degree of effectiveness of employing typography in designing holograms and murals to spruce up outdoors as a case study of Jordanian cities and the related challenges.

METHOD

Research Approach

The descriptive approach is used to achieve the research objectives, provide data on the demographic characteristics of the research sample, and distribute variables of high significance. This encompasses the use of tables to present data, as the descriptive approach involves systematic observation and description of the characteristics of the research population or sample without attempting to draw any conclusions beyond the data collected.

The deductive approach is also used to test hypotheses about the relationships among variables in the research population. This involves the use of statistical tests such as regression analysis to determine the strength and direction of relationships among variables.

Research Population & Sample

The research population consists of all 214 faculty members in faculties of design in 14 private universities offering a graphic design program. The research sample is collected using a simple random sampling method by sending the questionnaire to faculty members via the electronic questionnaire link sent on social media and via e-mail to the sample members. The Mason equation is used to calculate the research sample size from a research population of 214 faculty members. With that being said, both the research population and sample are the same with 214 faculty members. Table (1) illustrates the names of private universities in Jordan and faculty members in their faculties of architecture and design.

Table 1Names of Private Universities in Jordan and Faculty Members in their Faculties of Architecture and Design

#	University Name	Faculty Name	Department Name	Number of Faculty Members
1	Al-Zaytoonah University of Jordan	Faculty of Architecture and Design	Graphic Design , Architecture , Multimedia Technology, & Fashion Design	31
2	Middle East University	Faculty of Architecture and Design	Graphic Design , Architecture, & Interior Design	18
3	University of Petra	Faculty of Architecture and Design	Graphic design, Interior Design, Digital Film Design Technology, Motion and Multimedia , & Architecture	38
4	Al-Ahliyya Amman University	Faculty of Architecture and Design	Multimedia and Graphic Design, Architecture, Film, Television and Theatrical Design, Interior Design, Graphic Design	24
5	Applied Science Private University	Faculty of Arts and Design	Department of Design and Visual Communication: Specialization in Graphic Design, Design for Digital Media, Interior Design, Fashion and Accessories Design	22
6	Philadelphia University	Faculty of Arts and Educational Sciences and Faculty of Architecture and Design	Department of Graphic Design , Architecture, Interior Design, & Department of Animation and Multimedia	14
7	Zarqa University	Faculty Department of Architecture of Arts and Design	Graphic Design, Interior Design, Architecture	18
8	American University of Madaba	Faculty of Arts and Design	Architecture, Design, Design and Visual Communication, & Design and Applied Arts	17
9	Arabic Open University	Information Technology Faculty	Multimedia and Graphics Technology	3
10	Jerash University	Faculty of Engineering	Architecture Engineering	4

11	Irbid National University	Faculty of Literature and Arts	Graphic Design	3
12	International Islamic Sciences University	Faculty of Islamic Arts and Architecture	Department of Islamic and Applied Arts	7
13	Gadara University	College of Arts and Languages	Department of Design and Visual Communication	8
14	Al-Isra Private University	-	Engineering and Architecture Engineering	7
214	Total			

Research Instrument

The research instrument is a 23-item questionnaire divided as follows: (7) items measuring the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, (10) items measuring the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and (6) items measuring the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities. Table (2) illustrates the distribution of the questionnaire items.

Table 2Distribution of Questionnaire Items Measuring the Research Variables

Research Variables	Variable Type	Items	Number of Items
The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.	Research Variables	7-1	7
The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.		17-8	10
The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.		23-18	6
Instrument Total Items		23-1	23

Research Instrument Validity and Reliability

The research instrument “questionnaire” validity is checked by reviewing the questionnaire in its initial forms from experienced and specialized faculty members in graphic design in Jordanian universities to ensure the adequacy of the test items and their suitability for the purpose for which they are prepared and verify the accuracy, language, and clarity of the items. The comments, modifications, and recommendations proposed by the validators are taken into account, as the items have obtained an approval rating of (90%) or more. The necessary action is taken with the items suggested to be deleted, modified, or reformulated, and thus the questionnaire in its final form consists of (23)

RESULTS AND DISCUSSION

This section gives an insight into the description of the characteristics of the research sample and description of the research variables.

Description of the Characteristics of the Research Sample

Gender

Table 3The Frequencies and Percentages of Research Sample Members by Gender

Item No.	Categories	Frequencies	Percentage
1	Male	69	67.0
2	Female	34	33.0
Total		103	100%

As shown in Table (3), the results of the distribution of the research sample consisting of 103 individuals indicate that 67% of the sample is male (69), while 33% of the sample is female (34).

Age

Table 4The Frequencies and Percentages of Research Sample Members by Age

Item No.	Categories	Frequencies	Percentage
1	25 To 35 Years Old	37	35.9
2	36 To 49 Years Old	32	31.1
3	50 Years and Above	34	33.0
Total		103	100%

As shown in Table (4), the results of the research sample by age indicate that most of the sample (35.9%) is between (25) and (35) years old due to the universities' keenness to provide these specializations with young cadres as a result of the increasing demand for study in these faculties. The results also show that 33% of the sample is aged 50 years and above, as this age group represents advanced academic ranks. However, the group aged between (36) and (49) years is 31.1%.

Academic Qualification

Table 5The Frequencies and Percentages of Research Sample Members by Academic Qualification

Item No.	Categories	Frequencies	Percentage
1	Master's Degree	40	38.8
2	Doctorate's Degree	63	61.2
Total		103	100%

As shown in Table (5), the results regarding the academic qualification of the sample members indicate that most of them hold a doctorate, as their number is 63 with a percentage of (61.2%). Concerning those holding a master's degree, their percentage is 38.8%, with several 40. This increase in the number of people holding high academic degrees indicates a great interest in education and training in this domain.

Number of Years of Experience

Table 6The Frequencies and Percentages of Research Sample Members by Academic Qualification

Item No.	Categories	Frequencies	Percentage
1	Less Than 5 Years	5	4.9
2	6 To 10	32	31.1
3	11 To 15	35	34.0
4	16 and Above	31	30.1
Total		103	100%

As shown in Table (6), it is shown that respondents with experience in the range of 11-15 years constitute the largest percentage of the research sample at 34% with 35 members. The individuals with experience in the range of 6-10 years, at 31.1% with 32 members are ranked in the second. Concerning the third rank, they are the respondents with 16 years of experience or more, at 30.1% with 31 members. In the final and last rank, there are 4.9% of individuals with less than 5 years of experience with 5 members.

Description of the Research Variables

First Research Variable: The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.

This section focuses on the significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities. The mean and standard deviation are used to analyze the data drawn from the studied sample. Table (6) illustrates those results.

Table 7 Means, Standard Deviations, and Degree of Approval towards the Degree of Significance of Using Typography as Artistic Models, Holograms, and Murals to Decorate Outdoor Spaces in Jordanian Cities

Item No.	Text of Item	AM	SD	Percentage	Degree of Approval	Rank
1	The use of typography in the design of artistic models and murals provides designers with the opportunity to create artistic works that represent the city's identity and highlight its history.	4.53	0.56	90.7%	High	2
2	The aesthetic design in typography is an important factor in attracting attention due to the importance of the elements and themes used in murals, holograms, and sculptures and encouraging people to stop and contemplate the works of art displayed in spaces in Jordanian cities.	4.41	0.73	88.2%	High	3
3	Typography in the design of murals, holograms, and models plays an important role in promoting tourism and attracting visitors to Jordanian cities, as it reflects the cultural heritage of Jordanian cities.	4.28	0.69	85.6%	High	5
4	The use of typography in designing artistic models, holograms, and murals to decorate the outer space contributes to filling the void and improving the appearance of the squares in Jordanian cities.	4.56	0.55	91.3%	High	1
5	Employing typography as a design art in decorating public spaces can encourage environmental preservation, preserve public places, and improve their appearance.	4.09	0.83	81.7%	High	6
6	Utilizing typography as a design art in decorating public spaces can enhance national belonging and national positivity among local communities.	4.01	0.89	80.2%	High	7
7	Typography can carry social, cultural, or awareness messages aimed at motivating the recipient to interact and think	4.36	0.74	87.2%	High	4
The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.		4.32	0.54	86.4%	High	

As shown in Table (7), the results indicate that the mean values for the variable of the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities are characterized by high degrees, ranging between (4.01) and (4.56). It is found that item (4) stipulating “The use of typography in designing artistic models, holograms, and murals to decorate the outer space contributes to filling the void and improving the appearance of the squares in Jordanian cities” is ranked the highest with a mean of (4.56) and a standard deviation of (0.55). However, item (6) stipulating “Utilizing typography as a design art in decorating public spaces can enhance national belonging and national positivity among local communities” is ranked the lowest with a mean of (4.01) and a standard deviation of (0.8). Given the previous results, it is evident that Jordanian designers tend to focus heavily on decorating public

spaces and designing artistic sculptures, holograms, and murals using typography due to the urgent need to enhance local and national identity, history, and national belonging among local communities.

Second: The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.

This section focuses on the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities. The mean and standard deviation are used to analyze the data drawn from the studied sample. Table (8) illustrates those results.

Table 8 Means, Standard Deviations, and Degree of Approval towards the Degree of Effectiveness of Using Typography as Artistic Models, Holograms, and Murals to Decorate Outdoor Spaces in Jordanian Cities

Item No.	Text of Item	AM	SD	Percentage	Degree of Approval	Rank
8	The graphic designer realizes the importance of using typography in designing artistic murals, holograms, and models to decorate spaces in Jordanian cities.	3.91	0.82	78.3%	High	9
9	Typography is the visual language we read, parallel to the oral language we use when speaking.	3.89	0.75	77.9%	High	10
10	There is a complementary importance to the typographic design with the picture, illustration, or icons in designing artistic murals, holograms, and models to decorate Jordanian spaces.	4.17	0.63	83.3%	High	7
11	Good use of typography effectively enhances the aesthetics of outer space in Jordanian cities.	4.49	0.56	89.7%	High	1
12	The use of typography in murals and art objects helps create an attractive environment.	4.41	0.57	88.2%	High	2
13	The use of typography in artistic murals, holograms, and models represents an opportunity for artists and designers to express their creativity and highlight their skills and talents.	4.34	0.75	86.8%	High	3
14	The graphic designer realizes the importance of clarifying the connotation and meaning that he or she wishes to convey to the target audience when they design typography such as murals and models in the squares of Jordanian cities.	4.27	0.56	85.4%	High	5
15	Typography gives a distinctive identity to outer space and can be used innovatively to express different concepts.	4.08	0.72	81.6%		8
16	Typography is a multi-dimensional art that involves assembling shapes, colors, and lines impressively.	4.18	0.87	83.7%		6
17	The graphic designer realizes the importance of the harmony of typographic colors as objects and artistic murals to decorate spaces in Jordanian cities to provide a harmonious and comfortable visual experience.	4.28	0.58	85.6%		4
The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.		4.20	0.32	84.0%	High	

As shown in Table (8), the results indicate that the mean values for the variable of the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities

are characterized by high degrees ranging between (3.89) and (4.49). Item (11) stipulating “Good use of typography effectively enhances the aesthetics of outer space in Jordanian cities” is ranked the highest with a mean of (4.49) and a standard deviation of (0.56). However, item (9) stipulating “Typography is the visual language we read, parallel to the oral language we use when speaking” is ranked the lowest with a mean of (3.89) and a standard deviation of (0.75).

Third: The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.

This section focuses on the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities. The mean and standard deviation are used to analyze the data drawn from the studied sample. Table (9) illustrates those results.

Table 9 Means, Standard Deviations, and Degree of Approval towards the Degree of Challenges of Using Typography as Models, Holograms, and Murals to Decorate Outdoor Spaces in Jordanian Cities

Item No.	Text of Item	AM	SD	Percentage	Degree of Approval	Rank
18	The designer faces many difficulties and restrictions in selecting places for artistic sculptures, holograms, and murals in Jordanian cities.	4.14	0.56	82.7%	High	4
19	The limited budget available to municipalities and competent authorities is one of the challenges for designing and implementing typography as sculptures and artistic walls to decorate public spaces in Jordanian cities.	3.99	0.76	79.8%	High	5
20	Using typography as a design art requires good study and planning to obtain satisfactory and eye-catching results according to each work.	4.51	0.58	90.3%	High	1
21	It is difficult for the designer to obtain approvals from the competent authorities to apply typographic design to decorate the spaces of Jordanian cities.	3.99	0.83	79.8%	High	5
22	The designer needs financial support from the competent authorities to use typographic design to decorate the spaces of Jordanian cities	4.50	0.67	89.9%	High	2
23	The designer needs to study the target audience in public spaces to select the appropriate typography in terms of font type, formation, and color	4.47	0.56	89.3%	High	3
The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.		4.27	0.47	85.3%	High	

As shown in Table (9), the results indicate that the mean values for the variable of the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities are characterized by high degrees ranging between (3.99) and (4.51). Item (20) stipulating “Using typography as a design art requires good study and planning to obtain satisfactory and eye-catching results according to each work” is ranked the highest with a mean of (4.51) and a standard deviation of (0.58). However, items (19 and 21) stipulating “The limited budget available to municipalities and competent authorities is one of the challenges for designing and implementing typography as sculptures and artistic walls to decorate public spaces in Jordanian cities” and “It is difficult for the designer to obtain approvals from the competent authorities to apply typographic design to decorate the spaces of Jordanian cities” are ranked the lowest with a mean of (3.99) and a standard deviation of (0.79.8).

Research Hypotheses Testing

To test the research hypotheses, the T-test for independent samples and the Analysis of Variance test (ANOVA) are used, as follows:

Results Related to Research Hypothesis (1)

Hypothesis (1): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the gender variable. To test the hypothesis, the T-test for independent samples is used. Table (10) illustrates those results.

Table 10 Statistical Differences Regarding the Research Variables Attributed to the Gender Variable

Level of Sig.	DF	T-Value	SD	MA	Number	Gender	Research Variables
0.001	101	-3.427	0.532	4.199	69	Male	The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
			0.472	4.567	34	Female	
0.007	101	-2.774	0.288	4.142	69	Male	The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
			0.358	4.324	34	Female	
0.004	101	-2.908	0.476	4.174	69	Male	The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.
			0.407	4.451	34	Female	
0.000	101	-3.650	0.334	4.168	69	Male	Overall Degree
			0.364	4.431	34	Female	

As shown in Table (10), significant statistical differences are found at the significance level of (0.05), as these differences are attributed to the gender variable in all research variables, including the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities, along with the overall degree of research. The T-test values for each of these variables are (-3.427, -2.774, -2.908, & -3.650) respectively, as all values are higher than the corresponding tabular values, and therefore these results are statistically significant. In addition, it is also found that all differences are in favor of females, as the means for these differences are (4.567, 4.324, 4.451, & 4.431), respectively.

Thus, the alternative hypothesis stipulating that there are statistically significant differences at the significance level of (0.05) in all the above-mentioned variables is accepted, and the null hypothesis stipulating that there are no statistical differences in these variables, is rejected. Also, these results can be explained by the fact that the gender referred to in the research has a significant impact on the results related to typography as models, holograms, and murals to decorate spaces in Jordanian cities. This effect may be related to the different artistic interests and visions of each gender, along with the varying cultural and educational backgrounds that can influence artistic interests. This gender disparity could also be a result of other factors such as social, cultural, and psychological factors that can differ between the genders, which may affect individuals' attitudes and interests regarding art and design.

Results Related to Research Hypothesis (2)

Hypothesis (2): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the age variable. To test the research hypotheses, the Analysis of Variance test (ANOVA) is used. Table (11) illustrates those results.

Table 11 Statistical Differences Regarding the Research Variables Attributed to the Age Variable

Level of Sig.	F-Value	Mean Square	DF	Sum of Squares	SD	AM	Number	Ages	Research Variables
0.000	15.519	3.517	2	7.033	0.439	4.622	37	25 To 35 Years Old	The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
		0.227	100	22.659	0.348	4.321	32	36 To 49 Years Old	
			102	29.692	0.602	3.992	34	50 Years and Above	
					0.540	4.320	103	Total	
0.000	14.886	1.216	2	2.432	0.287	4.284	37	25 To 35 Years Old	The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
		0.082	100	8.168	0.344	4.338	32	36 To 49 Years Old	
			102	10.600	0.215	3.985	34	50 Years and Above	
					0.322	4.202	103	Total	
0.660	0.417	0.094	2	0.187	0.560	4.320	37	25 To 35 Years Old	The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.
		0.224	100	22.448	0.326	4.219	32	36 To 49 Years Old	
			102	22.635	0.488	4.250	34	50 Years and Above	
					0.471	4.265	103	Total	
0.000	9.415	1.074	2	2.148	0.373	4.396	37	25 To 35 Years Old	Overall Degree
		0.114	100	11.407	0.313	4.302	32	36 To 49 Years Old	
			102	13.555	0.319	4.056	34	50 Years and Above	
					0.365	4.255	103	Total	

As shown in Table (11), significant statistical differences are found at the significance level of (0.05), as these differences are attributed to the age variable in all research variables, including the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities, along with the overall degree of research. The F-values for each of these variables are (15.519, 14.886, & 9.415), respectively, as all values are higher than the corresponding tabular values, and therefore these results are statistically significant. In addition, it is also found that all differences are in favor of females, as the means for these differences are (4.567, 4.324, 4.451, & 4.431), respectively. It is also found that the differences in the first variable and the total score are in favor of individuals between the ages of (25-35) years, with a mean of (4.622, 4.396), respectively. However, the differences in the second variable are in favor of individuals between the ages of (36-49) years, with a mean of (4.338).

Moreover, the results indicate that there are no statistically significant differences between ages with regard to the challenges of designing and implementing typography as artistic sculptures, holograms, and murals in decorating spaces in Jordanian cities. Therefore, the alternative hypothesis stipulating there are statistically significant differences at the significance level of (0.05) in the use of typography as artistic sculptures, holograms, and murals to decorate spaces in Jordanian cities, and in the degree of their effectiveness is accepted that is attributed to the age variable. On the other hand, the null hypothesis stipulating that there are no statistically significant differences at the significance level of (0.05) in the challenges faced by designers in the process of designing and implementing typography as artistic models, holograms, and murals in decorating spaces in Jordanian cities is accepted due to the age variable.

Results Related to Research Hypothesis (3)

Hypothesis (3): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the academic qualification variable. The first hypothesis also indicates that these differences, if they exist, can be attributed to the academic level of individuals. To test the hypothesis, the T-test for independent samples is used. Table (12) illustrates those results.

Table 12 Statistical Differences Regarding the Research Variables Attributed to the Academic Qualification Variable

Level of Sig.	DF	T-Value	SD	AM	Number	Academic Qualification	Research Variables
0.447	101	0.763	0.420	4.371	40	Master’s Degree	The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
			0.604	4.288	63	Doctorate’s Degree	
0.375	101	0.891	0.345	4.238	40	Master’s Degree	The degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
			0.308	4.179	63	Doctorate’s Degree	
0.330	101	-0.979	0.341	4.208	40	Master’s Degree	The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.
			0.537	4.302	63	Doctorate’s Degree	
0.723	101	0.356	0.325	4.271	40	Master’s Degree	Overall Degree
			0.390	4.244	63	Doctorate’s Degree	

As shown in Table (12), no significant statistical differences are found at the significance level of (0.05), as these differences are attributed to the academic qualification variable in all research variables, including the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities, along with the overall degree of research.

Given these results, the null hypothesis stipulating that there are no statistically significant differences at the significance level of (0.05) in all the aforementioned variables is accepted, as these differences are due to the academic qualification variable. Moreover, the alternative hypothesis stipulating there are statistically significant differences at the significance level of (0.05) in all the aforementioned variables is rejected, as these differences are due to the academic qualification variable. The reason for the lack of statistically significant differences may be due to the lack of a strong correlation between the level of academic qualification and the reactions studied in the study. There may be other factors that influence reactions more than the level of academic qualification. The reason for this could also be that there is no significant difference in experiences and skills between holders of master's and doctoral degrees in this domain, which leads to responding in the same method to the subject studied without this being affected by the level of academic qualification.

Results Related to Research Hypothesis (4)

Hypothesis (4): There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) for the degree of “significance, effectiveness, and challenges” of typography in the design of sculptures, holograms, and murals in decorating outdoors in Jordanian cities due to the number of years of experience variable. To test the hypothesis, the T-test for independent samples is used. Table (13) illustrates those results.

Table 13

Statistical Differences Regarding the Research Variables Attributed to the Number of Years of Experience Variable

Level of Sig.	F-Value	Mean Squares	DF	Squares	SD	MA	Number	Number of Years of Experience	Research Variables
0.000	23.288	4.095	3	12.285	0.064	3.971	5	Less Than 5 Years	The degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities.
		0.176	99	17.408	0.380	4.723	32	6 To 10	
			102	29.692	0.451	4.400	35	11 To 15	
					0.446	3.871	31	16 and Above	
					0.540	4.320	103	Total	
0.050	2.697	0.267	3	0.801	0.179	4.020	5	Less Than 5 Years	The degree of effectiveness of using typography as artistic models, hologram
		0.099	99	9.799	0.281	4.325	32	6 To 10	
			102	10.600	0.336	4.169	35	11 To 15	
					0.336	4.142	31	16 and Above	
					0.322	4.202	103	Total	

									s, and murals to decorate outdoor spaces in Jordanian cities.
0.004	4.749	0.949	3	2.848	0.447	3.800	5	Less Than 5 Years	The challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities.
		0.200	99	19.788	0.537	4.401	32	6 To 10	
			102	22.635	0.473	4.357	35	11 To 15	
					0.285	4.097	31	16 and Above	
					0.471	4.265	103	Total	
0.000	10.482	1.089	3	3.268	0.214	3.948	5	Less Than 5 Years	Overall Scale
0.104	99	10.288	0.344	4.466	32	6 To 10			
	102	13.555	0.351	4.288	35	11 To 15			
			0.274	4.048	31	16 and Above			
			0.365	4.255	103	Total			

As shown in Table (13), significant statistical differences are found at the significance level of (0.05), as these differences are attributed to the number of years of experience variable in all research variables, including the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities, along with the overall degree of research. The F-values for each of these variables are (4.723, 4.325, 4.401, & 4.466) respectively, as all values are higher than the corresponding tabular values, and therefore these results are statistically significant. In addition, it is also found that all differences are in favor of females, as the means for these differences are (4.567, 4.324, 4.451, & 4.431), respectively. It is also found that the differences in the first variable and the total score are in favor of individuals between the ages of (25-35) years, with a mean of (4.622, 4.396), respectively. However, the differences in the second variable are in favor of individuals between the ages of (36-49) years, with a mean of (4.338).

Additionally, it is found that all differences are in favor of people with 6 to 10 years of experience, as the means for this category are (4.723, 4.325, 4.401, & 4.466), respectively. Accordingly, the alternative hypothesis stipulating that there are statistically significant differences at the significance level of (0.05) is accepted with regard to the degree of significance of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, the degree of effectiveness of using typography as artistic models, holograms, and murals to decorate outdoor spaces in Jordanian cities, and the challenges of using typography as models, holograms, and artistic murals to decorate outdoor spaces in Jordanian cities due to the influence of number of years of experience.

With this in mind, it can be concluded that experience in the domain may influence designers' preferences and visions of art and design. This indicates that people with 6 to 10 years of experience may be more capable of using typography as artistic models, holograms, and murals to decorate spaces in Jordanian cities. This preference may lead to increased use of typography as a means of artistic decoration at the expense of other styles and techniques.

CONCLUSION

In a nutshell, the paper examines the degree of effectiveness of employing typography in designing holograms and murals to spruce up outdoors as a case study of Jordanian cities and the related challenges. The results indicate that the use of typography as artistic holograms and murals to decorate outdoor spaces in Jordanian cities is of high importance and use. Also, the findings show that using typography in designing holograms and murals contributes to filling the void spaces and improving the appearance of the courtyards. The results also demonstrate that employing typography as a design art to decorate public spaces can enhance national belonging and national positivity among local communities.

Recommendations

With the results attained, the research recommends focusing on the effectiveness of employing typography in designing holograms and murals to spruce up outdoors in Jordanian and non-Jordanian cities in future research.

REFERENCES

- Abdalla, A., AljHEME, E., & Abdulhadi, F. (2022). The Impact of Using Visual Materials in Enhancing Learning English Vocabulary at Libyan Preparatory Schools. *Al-Zaytoonah University of Jordan Journal for Human and Social Studies*, 3(1), 217-229.
- Alqudah, A. (2023). Data analysis of digital interactive art through information technology. *International Journal of Data and Network Science*, 7(1), 399-404.
- Alsswey, A. H., Al-Samarraie, H., El-Qirem, F. A., Alzahrani, A. I., & Alfarraj, O. (2020). Culture in the design of Health UI: An effort to increase acceptance among culturally specific groups. *The Electronic Library*
- Ambrose, G., Harris, P., & Ball, N. (2019). *The fundamentals of graphic design*. Bloomsbury Publishing.
- Billard, T. J. (2018). Citizen typography and political brands in the 2016 US presidential election campaign. *Marketing Theory*, 18(3), 421-431.
- Blackmar, E. (2006). *Appropriating the Commons: The Tragedy of Property Right Discourse in Setha Low and Neil Smith*. The Politics of Public Space. New York: Routledge.
- Brennan, J. (2019). Public Art and the Art of Public Participation Author. *National Civic Review*, 108(3), 34-44.
- Brownie, B. (2014). *Transforming type: New directions in kinetic typography*. Bloomsbury Publishing.
- Grüning, B. (2017). Space, Interaction, and Communication. *Sociology in Dialogue with Spatial Studies: An Introduction*. *Sociologica*, 11(2), 1-20.
- Hall, T and Robertson, I. (2001). Public Art and Urban Regeneration: advocacy, claims and critical debates. *Landscape Research*, 26(1), 5-26.
- Houria, A. (2018). *The impact of modern typography trends on the design of commercial advertising in Jordan*. [Unpublished Master's Thesis]. Middle East University, Jordan.
- Hunt, R. (2020). *Advanced Typography: From Knowledge to Mastery*. Bloomsbury Visual Arts.
- Jaafar, Z & Ismail, N. (2022). Variable selection in high dimensional data with interactions. *International Journal of Advances in Soft Computing and its Application*, 14(2), 152-166.
- Li, X. & Zhang, Y. (2020). Combining the Historico-Geographical and Configurational Approaches to Urban Morphology: The Historical Transformations of Ludlow, UK and Chinatown, Singapore. *Urban Morphology* 25(1), 23-41
- Mezzadri, P. (2021). Contemporary Murals in the Street and Urban Art Field: Critical Reflections between Preventive Conservation and Restoration of Public Art, Heritage. *Journal of Cultural and Natural Heritage Science*, 1(1), 1-20.
- Putra, W & Apsari, D. (2022). Imagined Spaces Through Public Space Typography: Preliminary Studies Using Multimodal Ethnography. *Jurnal Bahasa Rupa*, 6(1), 116-124.
- Shrinagesh, B & Markandey, K. (2016). Rethinking urban space in cities: A study of parks in Hyderabad, India. In *IOP Conference Series: Earth and environmental science*, 37(1), 22-40.
- Siddiq, S. (2019). Adapting the art of typography in advertising design to consolidate visual identity in tourism advertising, *Journal of Architecture and Arts*, 13(5), 15-42.
- Sull, R. (2018). *The Art of Cursive Penmanship: A Personal Handwriting Program for Adults*, Skyhorse, International Paperwhite.
- Taufik Murtiono & Bambang Sukma Wijaya. (2021). Representation of Murals and Branded Outdoor Advertising: Critical Implications for Sustainable Geographical Public Spaces. *Review of International Geographical Education*, 1(2), 2-22.
- Zhou, W. (2022). The Application and Development of Mural Art in Urban Public Environment Landscape Design. *Hindawi Journal of Environmental and Public Health*, 20(22), 1-9. <https://doi.org/10.1155/2022/3346648>
- Zhudi S., Diya Z., & Hongmiao, Z. (2022). The Innovative Application of Dunhuang Murals Patterns in Cultural Creation Design: Taking the "Tiger" Element as an Example.