



# Healing Applications in Hospital Interiors: Ceramic Art

Elif Özgen\* 

Pınar Biçici Çetinkaya\*\* 

## Abstract

Healthcare facilities include complex partnerships that accommodate different types of users to meet the needs of the healthcare sector and require the collaboration of many disciplines to meet these needs. Hospitals, which contain the outputs of different fields of expertise from city scale to industrial product scale, are fed by the fields of engineering, architecture, and interior architecture in terms of space. Interior design, on the other hand, is divided into theoretical and practical specializations related to building types. The fact that health buildings have significant differences from other buildings due to their function and the obligations that would be met is of great importance in terms of the benefit to be provided to the public by the studies to be carried out in the field. Hospital buildings and spaces are constructed and designed according to the standards determined by the state's laws, regulations, or guidelines where they are to be built. In this context, the study aims to provide a public contribution with art outputs that would positively affect the recovery of the user for the spaces that are generally open to the use of users in hospital interiors by researching the standards in the framework of international standards. However, since traditional and modern art contents have different spatial needs; ceramic art outputs, which are included in traditional art, focus on the specific evaluation of the research with its visual and tactile character. Using qualitative research methods; hospital construction guidelines and literature research were carried out by data collection and inductive methods. The research aims to make theoretical and practical contributions to the healing space with ceramic artworks/objects in the field of architecture and design.

## Keywords:

*Healing, healing space, ceramic artwork, art and healing, healing and interior.*

\*Faculty of Architecture, Bolu Abant İzzet Baysal University, Bolu, Türkiye. (Corresponding author)

✉ E-mail: elif.ozgen@ibu.edu.tr

\*\*Faculty of Fine Arts and Design, Inonu University, Malatya, Türkiye.

✉ E-mail: pinar.bicici@inonu.edu.tr

## INTRODUCTION

Healthcare buildings, one of the most important public building types, differ from other building types in terms of the number and quality of users. Hospitals, that serve patients and their relatives, are expected to have positive effects on healing in every sense. In other words, interior space is an important factor in the specified content. Hospital interior design and applications, which are a technical and physical necessity, have many limitations. The basis of architectural solutions is to prevent the risk of infection and disease for patients, relatives/companions, and medical staff. The issue of how to meet these criteria involves new answers every day. Because spatial changes related to health structures are changing and gaining new trends with the development of technology and medical practices. In this direction, with today's understanding of hospital interior design, new space needs arise that can meet the activities and actions that will positively affect the user socially and psychologically. Unlike in the past, in inpatient units where medical procedures are performed and where inpatients are hospitalized, improvement approaches are preferred in spatial parameters such as color, texture, landscape, natural lighting, and materials. In addition, the general spaces of the hospital are designed to support people's socialization, bring them together, and reinforce a sense of belonging (Ulrich & Gilpin, 1999), (Ulrich et al., 2008), (Nanda, Barbato Gaydos, & Nathorn, 2010).

The transformation of hospital interiors and the search for holistic well-being is an important break in the historical process. However, it is difficult to say that this break is surprising. Healthcare buildings evoke a sense of "fear of hospitals" in society, a place where people do not want to go. For many years, hospitals have been a place where people reluctantly and nervously go to receive treatment, and it is seen as a necessity to change the negative psychological effects of hospitals in every sense. In all relevant fields, contributions are being made both in theory and in practice to reduce or even eliminate the fear and anxiety of hospitals. At this point, the specialties of architecture, interior architecture, and design are utilized to increase the human-space relationship with applications that will support the healing effect of space. Art appears as an important tool for the mentioned branches. The use of artworks that are suitable for hospital interiors and that evoke positive feelings and emotions; can have healing effects for the audience (patients, patient relatives, staff, etc.).

For a designed object, item, or element, how it is shaped and its aesthetic values are as important as its products suitable for use and meeting the need. With the emergence of modern architecture, the three pillars of the idea of architecture; robustness, functionality, and aesthetics are among the requirements of this situation. On the other hand, the criteria including aesthetic needs in hospital interiors have a more flexible approach than the technical conditions to be met. They are

spatially restricted, mostly in line with the guidelines set by the administration of the country in which they are located, and there is a similar framework of limitations worldwide. In this context, there is no data on the qualities of artworks to be located in hospital interiors and how they can contribute to improvement.

In hospital interiors, art appears with two different approaches. The first is that it needs to be stored in areas that include therapy and activity, and the second is considered as a decorative element (FGI2, 2022) as well as having a distinctive function as a wayfinding and space identifier (FGI, 2022). In addition to these, the fact that art enables the creation of safer, more supportive, and functional environments in healthcare facilities provides an environment for discussion regarding the questioning of its quality rather than its stated characteristics. From architectural design to wall art, from access to natural lighting to the incorporation of nature through landscaping and healing gardens, art for hospital buildings has an impact on how the physical environment can reduce patient and caregiver stress, improve health outcomes, increase patient safety and overall quality of care, and reduce costs. The physical environment also plays an important role in improving staff health and safety, reducing errors, and increasing efficiency in care delivery and job satisfaction.

The process of creating art is generally associated with the therapeutic power of the creative process on human beings. Regardless of the artwork created by the experiences gained in this process, completed artworks in the environment also create good, positive feelings for people (Hill, 1948). While trying to provide patients with the most up-to-date scientific care, art also helps to remind medicine of its humanistic roots in healing. In addition to the contribution of the artwork to the individual, "art therapy" is also seen as a type of treatment that supports medical methods. Ceramics, on the other hand, differs from other art therapies as an important tool because it is created with manual techniques using natural materials. Ceramic making, which has a therapeutic character in itself, has a therapeutic character with the processes and experiences gained through the stages of idea work, conceptual process, shaping, firing, painting, glazing, etc. (Hamilton, Hinks, & Petticrew, 2003, p. 401).

It is seen that artworks/objects are frequently utilized in line with the concepts of space and healing and are among the current research topics. Within the framework of the specified subject (ceramic art and its healing effects), research has been encountered in the literature. However, the study has a different focus from the research in terms of focusing on the spatial healing aspect of the finished and assembled ceramic artwork/object in hospital interiors and discussing its parameters. Instead of focusing on the healing power of ceramic making within art therapy, the research focuses on the use of completed ceramic artworks in hospital interiors. In other words, ceramic art used as a therapy method is excluded from the subject of the study. The cross-section that provides the originality of the study is planned as the realization of the discussion of how to bring together the qualities that will motivate

positive emotions and provide hygiene-related obligations for the users who are in the position of the audience for the determined building type.

It is observed that qualitative/quantitative studies are accepted in art-related research conducted within health research (Patton, 2002). For this reason, the study is handled interdisciplinary with qualitative research methods. It evaluates the research on ceramic art and interior architecture disciplines in line with internationally accepted guidelines. The main objective at this point is to determine the criteria for artworks that can be used in hospital interiors by unconditionally accepting the internal process of art that is personal and connects with the artist. Unlike art galleries where artworks are commonly exhibited, health buildings, especially due to their function, do not have a retracted spatial setup where only the audience can understand the artwork in the most accurate and best way. For this reason, the knowledge of the interior space in which the artwork will exist and for what purpose is a very important parameter that must be met for the work to be exhibited. The two disciplines were analysed under separate headings and the discussion on how they can be evaluated together was evaluated together with the examples of the interiors of the completed health structures. Considering the resulting data, the criteria that can be concretely addressed by the ceramic artwork/object that takes place functionally and aesthetically in the hospital interior space are presented.

However, the data on the quality of artworks to be placed in hospital interiors describes a very wide area since it is obtained with inputs involving creativity. In hospital interiors, there are technical requirements that must be met according to the functional areas. In this sense, it is thought that internationally used guidelines will make important contributions to the study. There are building and space standards determined by local governments in many countries. The regulations and academic studies used have been researched in depth and it has been seen that the "Health Building Note General Design Guidance for Healthcare Buildings (HBN, NHS)" and "Guidelines for Design and Construction of Hospitals, Guidelines for Design and Construction of Residential Health, Care, and Support Facilities" design guidelines used in the UK and the USA have been evaluated as a resource by creating an infrastructure for the regulations and guidelines used in other countries. For this reason, the guidelines mentioned within the scope of the content of the study play an important role in determining the quality of ceramic artworks. The study aims to create an improvement-oriented discussion, especially in determining the quality and technical needs of ceramic artworks to be placed in hospital public spaces.

## REQUIREMENTS FOR HOSPITAL INTERIORS

The most valid definition for the concept of health is the one used in the constitution of the World Health Organization (WHO) in 1946: "Health is not merely the absence of disease or infirmity, but a state of complete physical, mental, and social well-being." Although the concept and its content date back long before today, the WHO officially uses the same definition in 2022 (WHO, World Health Organization, 2022). As mentioned, the concept of health is considered as a whole. This approach has a perspective that is far from only physical well-being. The article "The dissemination of the benefits of medical, psychological and related knowledge to all people is essential for the attainment of full health." in the same definition concludes that all disciplines should be utilized for the public good.

In general, the technological aspect of healthcare services and architecture is influenced by three main factors. The first is linked to the need to ensure safety and security in a high epidemiological-risk environment. The second is related to the need to incorporate advanced technology required for medical equipment and building infrastructure. Finally, the third is related to the "Cartesian dualism" in medical sciences (the separation of the soul from the body). Fortunately, the healthcare architecture of the 21st century is in the process of dynamic transformations resulting from a change in the approach to patients. The holistic perspective is gradually influencing medical sciences and as a result, patient needs are discussed in three equally important parameters: biological, social, and psychological (Awtuch & Gębczyńska-Janowicz, 2017). In this respect, it can be said that both in the fields of architecture and interior design, importance is given to aesthetic-related details, and interest as a specialty has increased. It is also noticed that visual art has found a functional place in spatial arrangements and the possibilities of the exhibition have expanded. Therefore, for hospitals that serve the public with their complex and high capacity in health spaces; in addition to medical, and psychological treatments, there is a need for the knowledge and sharing of interior architects, architects, and designers with the healing applications of the space. In addition according to Horsburgh Jr. (1995); healthcare facilities are inextricably linked to the services they provide. Architectural design is crucial to the healing process since the quality of the space in these structures has an impact on the results of medical treatment. Many of the aesthetic features of space that make hospitals appealing are essential to effective design in all kinds of structures. In this sense, a well-designed hospital exhibits the talent and artistry of architects at work. This development of hospital design from its postwar emphasis on functional efficiency to a balance between function and aesthetics is represented by the appearance of these traits in modern facilities.

Understanding the spatial attributes that make up a successful hospital is important for healthcare providers for two reasons. Firstly,

healthcare providers should be aware of the impact of spatial considerations on recovery to better manage patient care. Secondly, informed healthcare providers are advocates for good design in the planning and construction of healthcare facilities (Horsburgh, 1995, p. 735). Because it is known that hospital structures where health services are provided create negative emotions, especially psychological, in users. In other words, the person who goes to the hospital for the treatment of his/her disease condition may experience stress before starting the treatment process, reinforced by his/her previous experiences user will spend in the hospital, will probably feel pain, and will have a difficult process.

The fear of hospitalization, which is socially engraved in individuals' minds, brings many psychological problems for the inpatient. In addition, the spatial change of the entire environment and the constant surroundings by professionals (healthcare personnel and staff on duty) cause the patient and patient relatives to be psychologically negatively affected and even damaged (Nash, Darby, & Nash, 2015). Furthermore, hospitalized patients are under both physical and psychological stress. Most experience some regression to earlier stages of psychological behavior. This has important implications for the interactions between the user and the hospital environment. People under illness stress are more susceptible to information overload, less able to process information provided by the environment, and more dependent on the help of others. (Shumaker & Reizenstein, 1982). Patients and their families often use the hospital for the first time or infrequently. However, to a lesser extent, friends and family of the patient also experience similar psychological, social, and physical difficulties as the patient. They can be easily frustrated by the failure to utilize spatial configurations that are familiar to them, that are not intimidating to users, and that can create a sense of belonging (Carpman & Grant, 1993).

The search for the effective interior design of hospitals, which ensures the safety of the user in every sense and above all aims to create a positive attitude toward patient welfare, leads to regular art exhibitions being brought/opened in medical facilities. Especially the spaces where medical examinations and treatments take place, where the technical requirements are drawn with very strict limits, are excluded from the subject at this point. The selection of artworks to be used in patient rooms and specific areas where medical practices are carried out requires the utmost care and attention. The use of artworks/objects in the interior design of areas with the lowest risk of infection in the hospital (general spaces such as waiting rooms, and communication rooms) is quite common (Awtuch & Gębczyńska-Janowicz, 2017).

In short, enabling the creation of healing spaces with a user-oriented design approach in healthcare buildings is becoming a necessity for today's design approach. With the fear of hospital, the difficulties experienced in the treatment process, and the changes experienced socially, which have been reinforced by our experiences, there is a need

to contribute to society from all disciplines with approaches that will contribute to the healing process. In particular, it is necessary to contribute to healing with the use of artworks and artistic practices that inspire creative ideas. In this context, the research content covering architecture, design, and art branches aims to contribute by discussing the requirements to be met for hospitals and the effect of art together.

### THE CONCEPT OF HEALING

Architecture Hasol (2008) defines the concept of recovery as "rehabilitation". "Recovery" refers to a positive process in which a person feels completely well. In the process of recovery, in addition to medical practices; therapies, interaction with natural factors, positive changes in social relations, etc. are practices and methods that have therapeutic and beneficial effects. These positive effects are not a concept used only for the treatment processes of patients. On the contrary, the environment and atmosphere of each affect the mood and physical condition of its users. In the historical process, many healing practices and examples are encountered. However, the evaluation of the concept as a field of study takes its place among the current study topics with the concepts of "healing" and "therapeutic" in the international sense.

Research from various disciplines suggests that a range of environmental features can have powerful healing and therapeutic benefits for their users (Ulrich R., 1991),(Scher, 1996),(Murgia & San Martin, 2002). These features include natural light and artificial light, color, views, artwork, scent, modulation of space and form, arrangement of furniture, scale and proportion, sound, texture and materials, movement through space and time, and indoor and outdoor space (Mazuch & Stephen, 2005). In other words, a healthy environment that promotes healthy living can contribute to the healing process by creating a supportive physical and social environment. Such environments aim to promote a sense of well-being, reduce stress, and fatigue, and develop a sense of hope and a positive attitude in patients (Awtuch & Gębczyńska-Janowicz, 2017). In addition, the inclusion of artistic performances and activities in the healthcare experience and its implementation in medical settings is frequently found in the literature with positive outcomes. Art not only helps to create a safe and supportive environment, but also improves patients' physical health and well-being (Tse, Ng, Chung, & Wong, 2002), (Lankston, Cusack, Fremantle, & Isles, 2010).

As mentioned, there are numerous studies on the effects of artworks on viewers. According to a study, it has been observed that patients who have visual artwork in the patient room have less desire to use painkillers. The same study reveals that the healing process of patients who have artwork in the patient room is less compared to other patients (Farokhi, 2011). In short, having artworks in hospital interiors, and thus pursuing an aesthetic concern in the interior, has a healing character beyond its mission. Research conducted at Chelsea and Westminster

Hospitals shows that colors and patterns that will attract the attention of the child user create a focal point during the examination and treatment of children and facilitate the health personnel (**Figure 1**).



**Figure 1.** Chelsea and Westminster Hospital interiors in 2006 (Dalke, et al., 2006).

In 2017, London-based designer Adam Nathaniel Furman realized a ceramic application in the same hospital interior to utilize the healing power of art. The work is in the tiled entrance and reception area of the Chelsea and Westminster Hospital maternity center. The tiled walls are made of sturdy, durable porcelain that is easy to clean and hand-printed with chromatically deep and rich colors. The theme for the interior, which was designed as part of the project, was the emergence of colorful vegetation with the theme of birth and rebirth "associated with the joy of spring" through the project called Radiance (**Figure 2**). The 2006 research, the current interior design, and the change in current practices and design approaches are easily recognizable.



**Figure 2.** Chelsea and Westminster Hospital 2017 interior ceramic application (<https://www.dezeen.com/2020/01/13/adam-nathaniel-furman-chelsea-westminster-hospital-maternity-centre/>, Access Date: 20.12.2022).

It is known that the social structure can be carried into the hospital with visual arrangements and this situation positively affects the patient's motivation (Suter, 2007). In addition, for patients and healthcare professionals who are in the hospital environment for a long time, the selection of objects that are visual works of art (paintings, sculptures, ceramics, patterns, photographs, etc.) exhibited and/or to be exhibited in the hospital interior is extremely important (Eisen, 2006). The use of visual artworks that appeal to the tastes of the people in the hospital environment in hospital interior designs increases the sense of belonging, happiness, and peace in the user. For this reason, taking the



opinions of the users before any kind of architectural and decoration-based arrangement to be made in the hospital environment will contribute to making the realized arrangements a part of the healing and improvement process (Salderay, 2018).

### **RELATIONSHIP BETWEEN CERAMIC ART AND HOSPITAL INTERIOR SPACE**

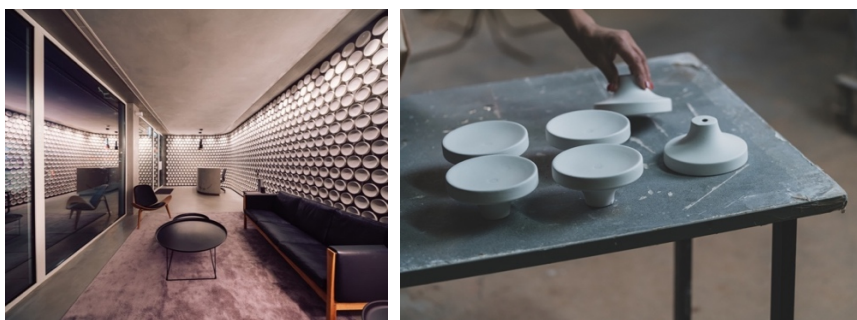
Today, the primary function of a work of art is accepted by society as a "decorative" element. However, apart from aesthetic and visual satisfaction, art also sometimes contributes to creating a functional, healing effect. Works of art have the power to connect with other people (personally and socially) by creatively expressing design ideas. The artist may create a work of art for the sole purpose of using its decorative function. Ultimately, art is the creative expression of an idea with the power to mobilize individuals' thoughts, feelings, beliefs, or ideas. This form of expression can come to life in various ways (Kılıç, 2022, p. 1). According to Akbudak and Akpınar (2021), art is the aesthetic products that people put forward with a certain creativity to the extent of their abilities, the experience they have gained throughout their lives, and the emotions they feel.

Hegel states that the general need for art is a rational need that pushes man to become conscious of the inner and outer worlds and that this situation pushes man to make an object from these two worlds in question, through which he will recognize himself anew (Hegel, 1982, pp. 75, 76). He explains that the creations of art are related to and like nature (Hegel, 1982, pp. 68, 69). The work of art presents itself as an external object with an unmediated determination, with a sensory individuality that gives it its color, form, and voice, or with a special intuition. The aesthetic gaze, aesthetic observation, and aesthetic perception do not think to go beyond this unmediated objectivity presented to it and do not try to grasp this objectivity as a universal concept, as science does. The behavior of art distinguishes itself from the practical behavior of desire because art wants its object - its object - to continue in complete freedom. Whereas desire is used by destroying its object for its use. On the contrary, aesthetic contemplation distinguishes itself from the theoretical contemplation of the scientific intellect, the contemplation of the mind, because art attaches itself to the individual existence of its object and does not seek to transform it into an Ideal or universal concept (Hegel, 1982, p. 79). In other words, in art, there is no chance of encountering one and only one reality that can only be perceived through the senses. Personalization and creating our own experiences or benefiting from our own experiences support the "intellectual" nourishment of the person and the building of a new world. The open-ended art/design object is a means of questioning, creating new ideas, getting out of the situation and mood one is in, and thus searching for answers. For this reason, artworks in the interior space, especially in

health structures, are of great importance. The inclusion of artworks/objects in the areas of use by both children and adults allows people to define themselves by discovering their potential and limits with works that include a sense of freedom, creativity, and rich stimuli. Under these conditions, it is not enough to include the elements of art in the interior space. It should not be forgotten that the quality of the work of art is also of great importance.

Hospitals, where people necessarily go for health-related problems, contain spaces with negative connotations in society. In this context, it is observed that there have been significant changes in hospital buildings in terms of design approach and artistic works to break this perception in recent years. Practices that will increase the sense of belonging and support the reduction of negative emotions, evoke nature, or bring nature itself inside are widely used.

There is considerable evidence that art depicting nature reduces stress levels and anxiety that affect the waiting experience. Studies have shown that creating an art-enriched environment in waiting areas increases the attractiveness of the physical environment, leading to a higher perception of quality of care by the patient. It also shows that the patient is less anxious and the communication with health personnel is more affirmative and positive (Pati & Nanda, 2011). In this sense, one of the completed examples is Maida Smile Clinic in England. It was awarded the British Private Dentistry Awards, IIDA Asia Pacific Interior Design Awards (Healthcare Category), Healthcare Category of Arch Daily's Building of the Year Award, and INSIDE Festival of Interiors Award, especially with the ceramic application in the waiting area. The interior design idea is based on the abstraction of ceramic dental implants, which are widely used in restorative dentistry. More than 500 handmade disk-shaped ceramic elements were used in the interior design (**Figure 3**).



**Figure 3.** Maida Smiles Clinic waiting area, England. (<https://maidasmiles.co.uk/about/>, Access Date: 19.12.2022).

Color is one of the leading factors in the effect of the artwork on the person. However, on the situation, event, emotion or concept to be explained; form, texture, and applications that create a 3D effect are perceived as a whole by the audience. In other words, the viewer sees the work or works in front of them as a whole and mentally and spiritually evaluates the expression of the work, which is the focus of the creator. Since the mid-twentieth century, research has revealed that colors have profound effects on people's emotions, behaviors, and bodies (Clark,

1975). Although the color element is descriptive of the design work, it is part of a whole. It is one of the dominant features that support an atmosphere, the transmission of a concept, or the passage of emotion to the viewer. Ceramic art and products are like the real world and appear in three dimensions. In addition to height, width, and length, ceramic products have other features such as mass, depth, and texture. Along with the color used, the user qualitatively encounters many effects. The fact that figurative three-dimensional products can be created with the help of ceramic applications also helps the products to have a symbolic function (Sholt MA & Gavron MA, 2006). For this reason, the quality of ceramic artwork in the interior cannot be discussed as one-dimensional. In addition to its two- and three-dimensional effect, many qualities will affect the work such as brightness-darkness, color, choice of material, lighting in the interior, the area where it is located and its relationship, etc. While how these parameters will be related and how they will form a whole is a problem, the realization of design works by foreseeing the feeling that the combination of atmosphere and the experience of the work will create in the audience adds a new question to the problem that needs to be answered.

Initiatives that bring artworks/objects, installations, and events into medical spaces aim to increase the efficiency of medical services, transform the image of sterile hospital architecture, and define and expand high-quality public spaces (Awtuch & Gębczyńska-Janowicz, 2017). However, it is seen as a necessity to set standards for art, which can be considered an integral part of health. Art's use and positive effects on health services and spaces are theoretical and practical fields of study. Artistic works in the interior space can appear as a finishing element of the space or as an exhibited work. Completed in 2018, the Edinburgh Hospital, whose ceramic design and application were realized by Frances Priest, is an example in this sense in terms of displaying both a decorative and functional attitude. The design, which reinterprets the Victorian era in the interior and was completed by a team of 20 people, is used as a finishing element in the hospital corridor (**Figure 4**). It is seen that the historical, traditional, and cultural identity of the geography of the hospital, which creates a defining identity by differentiating the corridor from other spaces, is aesthetically reflected as a design element. In addition to their functional and aesthetic roles, buildings also carry symbolic meanings by making visual references to cultural icons. Because patients and their families need to focus their energies on healing, architects design hospitals to provide an environment of safety, cleanliness, and physical comfort. In this way, patients; are encouraged not to worry about safety, health, or physical discomfort (Horsburgh, 1995, p. 738). Similarly, it is suggested that the works of art in the interior create familiarity with the culture of the place where the building is located.

Multiple additions to a facility often lead to access and orientation problems, and today's hospitals are known as labyrinths due to the

careless blending of new and old structures. As with the Edinburgh Hospital, with the need for increased capacity today, the interior should be supported with easy-to-read applications between the old building and the newly built or refurbished areas that feel complex to the user. Often the abundance of signage and brightly colored lines on the walls and floors of the hospital proves how difficult it is for patients to navigate and find their way around (Horsburgh, 1995, p.735). It is possible to alleviate these disadvantages with the functional use of artworks and transform them into an application that offers convenience for the user.



**Figure 4.** Edinburgh Hospital corridor, England. (<https://www.designcurial.com/news/frances-priestceramic-art-engages-the-senses-at-new-hospital-7286440>, Access Date: 20.12.2022).

In Mount Carmel East Hospital in Ohio, there is a corridor designed and realized by Natalie Blake Studios. The hospital interior has a ceramic wall panel consisting of 15 equal parts. The design, consisting of the abstraction of tree trunks, branches, and leaves, was assembled and exhibited on the wall (**Figure 5**). Unlike Edinburgh Hospital, the ceramic work does not have a functional character. As mentioned before, the qualities sought and intended to be met in the interior space vary according to the space and the artist's approach.



**Figure 5.** Mount Carmel East Hospital, Columbus, Ohio (<https://www.natalieblakestudios.com/project-gallery>, Access Date: 20.12.2022).

Hospital architecture and interiors are mostly determined by the institutional identity, which is determined before the construction phase. Plan, section, exterior views, and interior space; qualities such as circulation, hierarchy, and 3D effect are handled as a branch of the conceptual process / corporate identity that has already been created. By the way, the interior design is handled, information on how to analyze more detailed and small-scale details such as the quality of graphic elements (font size, color, typeface, etc.), the formal character of openings, and transitions are created. The preferences for the use of

artworks in the interior space are constructed similarly to these elements. At this point, it is necessary to determine the criteria for the ceramic artwork/object to be placed in hospital interiors. It is recommended to conduct interviews regarding the selection or ordering of the artwork by the interior design and the place where the ceramic artwork will be exhibited (**Table 1**).

**Table 1.** Table on the content of ceramic artistic elements to be used in the hospital's general interior space (Çukur & Güller Delice, 2011)(Read, Sugawara, & Brandt, 1999)(Ulrich & Gilpin, 2003). (compiled by the author).

Content	Description
Material	It should not contain chemicals that may harm human health.
	Surface paint and glaze materials must not pose a health risk.
Color	Works should be selected or constructed by the hospital interior design approach. However, an institutional image should be avoided, on the contrary, a home feeling should be created.
	Colors should be chosen with functional, symbolic, emotional, and aesthetic purposes in mind.
	The application should be considered by evaluating the intensity (color saturation) of the colors to be used.
	The designated color should not only appear in contrast.
	Form, space, and light should form the components of architectural design.
	Dominant characters that create gender discrimination should be avoided.
	Due to the exciting effect of warm colors and the calming effect of cool colors, it is beneficial to use color/colors functionally.
	Color saturations that will not tire the eye should be preferred.
Shape	Colors, tones, and brightness that will reinforce the feeling of home (ambient warmth) should be preferred.
	Forms that will collect dust and pose a risk of infection should be avoided.
	Sharp and pointed corners should not be used where there is a risk of accidents.
Texture	Sharp and pointed tissues should be avoided.
	It is recommended to avoid very small and complex, multi-colored designs with patterns and textures.
Concept	It is suggested to have a landscape or feel.
	It should reflect relaxing, calm feelings, like water.
	Concepts that carry positive cultural traces and create a sense of familiarity can be utilized.
	The use of forms that reflect the feeling of plants and gardens is supported.
	It should focus on motivating design ideas.

	It is recommended to reflect open-ended and imaginative ideas.
	It should convey warmth and a sense of belonging.
Surface Finish	Instead of a porous and retentive topcoat material, a material with little or no pores should be preferred.
Location and assembly	There should be no risk of falling or breaking.
	The use of three-dimensional artifacts on the stand should be avoided in public places with heavy human traffic.
	The risk of accidents should be minimized by avoiding the use of sharp, hard-edged objects.
	The place and height of the installation should be determined in collaboration with the artist who created the work.

## CONCLUSIONS

The subject and expertise of health structures and interior design are constantly renewed within the scope of developing technology and therefore changing needs. Spatial applications in hospitals, where health services are provided to all segments of society without interruption, need to be renewed for many reasons. Spatial applications are made for reasons such as wear and tear with continuous use, renovation of the existing area with the need to update (refresh) the space over time, construction of new areas, and increase of existing areas and their relationship with the general character. At this point, the study aims to discuss a specific area that includes hospital users; patients, patients' relatives, and working staff for an aesthetic need that is not considered a technical need. Because healthcare facilities should provide a therapeutic environment where the overall design of the building contributes to the healing process and reduces the risk of healthcare-associated infections, rather than being a place where only treatment is provided. In this context, HBN recommends the use of artwork, especially in patient rooms, for stimulation and distraction from the disease state (HBN, 2014).

To improve the psychological effect of the space on the users positively, the interdisciplinary literature was analyzed and the basis of the study was formed. In addition, the study focuses on the basic requirements that hospital interiors should meet and tries to offer a new perspective on art outputs, which are considered aesthetic requirements. In other words, the aesthetic values in hospital interiors are approached technically. In this context, a detailed examination of ceramic art, processes, and outputs, which are among the branches of art, has been carried out. Criteria have been established within the scope of content in terms of production, meaning, context, and manufacturing, especially for ceramic artifacts created or created for use in the common areas of the hospital.

As a result of the examinations and evaluations made; it is thought that ceramic works should add color to the hospital interiors and should not become the main purpose of being placed in the interior with wall panels or 3D applications by going beyond the standard plaster paint or plaster wallpaper applications. The suitability of each work of art for the hospital interiors where it is planned to take place should be discussed in advance. Similarly, ceramic artworks should be selected by considering how in what form, and with what kind of design they are related to within the required hospital interior. If the interior space is ready for use and it is planned to utilize art objects or applications within the existing space, the artist should be allowed to experience "that" space within the determined space atmosphere. Otherwise, while the interior design and atmosphere are in the design stage, the ceramic artist should simultaneously consider the design approach and the construction process as a whole.

The corporate identity created for hospital interiors should not be too cold and repulsive. The information regarding the selection or ordering of the artwork/object/object by the corporate identity mentioned earlier in the study is related to the suitability of the space to the design approach. On the other hand, the stated understanding of corporate identity meets the interior design that forms the design integrity rather than a professional and cold image. In other words, creating an institutional atmosphere should be avoided in the selection and use of artistic artworks/objects, but its compatibility with the design concept of the space should be discussed. Ceramic applications, which will reinforce the sense of belonging and support the feeling of home, are recommended to appeal to the user's senses in a similar way to other art applications and to establish a connection in a way that meets multiple senses to the maximum extent.

The design and selection of coatings and materials used in hospital interiors should be made taking into account the risk of infection. At this point, the ceramic artwork/object to be used in the space should be selected by the criteria determined. Art should be seen as an integral part of interior design.

As a result, in line with the criteria determined by the content of the study, it is recommended to use a long-lasting, easy-to-clean, hygienic, easily replaceable, accident and breakage-free, multi-part and hollow structure to reduce the risk of infection, compatible with the atmosphere of the space, motivating and healing ceramic artworks and objects.

#### REFERENCES

- Akbudak, H., & Akpınar, M. (2021). Keman Eğitiminde konumda Kalarak ve Konum Geçişli Çalma Becerisinin Öğretilmesinde Türk Müziği Kaynaklı Ezgilerin Kullanılabilirlik Durumunun İncelenmesi. *Sobider, The Journal of Social Science* Year 8, volume 50, 323-338.
- Awtuch, A., & Gębczyńska-Janowicz, A. (2017). Art and Healthcare - Healing Potential of Artistic Interventions in Medical Settings. *IOP Conf. Series: Materials Science and Engineering* Volume 245, Issue 4.

- Carpman, J.R. & Simmons, D. A. (1993). *Design that cares: planning health facilities for patients and visitors*. American Hospital Publishing, 2nd ed., Chicago.
- Clark, L. (1975). *The Ancient Art of Color Therapy*. Old Greenwich: CT Devin-Adair.
- Çukur, D., & Güller Delice, E. (2011). Erken Çocukluk Döneminde Görsel Algı Gelişimine Uygun Mekan Tasarımı. *Aile ve Toplum Cilt:7*, 25-35.
- Dalke, H., Little, J., Niemann, E., Camgöz, N., Steadman, G. H., & Stott, L. (2006). Color and lighting in hospital design. *Optics & Laser Technology vol 38*, Elsevier, 343-365.
- Eisen, S. L. (2006). *The Healing Effects of Art in Pediatric Healthcare: Art Preferences of Healthy Children and Hospitalized Children*. USA: The Degree of Doctor of Philosophy, The University of Texas, the Office of Graduate Studies of Texas the Office of Graduate Studies of Texas A&M University.
- Farokhi, M. (2011). Art Therapy in Humanistic Psychiatry. *Procedia-Social and Behavioral Sciences*, 30, 2088-2092.
- FGI (2022). *Guidelines for Design and Construction of Hospitals*. The Facility Guidelines Institute, St. Louis, US.
- FGI2 (2022). *Guidelines for Design and Construction of Outpatient Facilities*. The Facility Guidelines Institute, St. Louis, US.
- HBN (2014). *Health Building Note 00-01, General design guidance for healthcare buildings*. UK: UK Government.
- Hegel, G. W. (1982). *Estetik* (N. Bozkurt, Trans.) . İstanbul: Say Publish.
- Hill, A. (1948). *Art Versus Illness*. London: Allen and Unwin.
- Horsburgh Jr, C. R. (1995). Healing by design. *New England Journal of Medicine*, 333(11), 735-740.
- Kılıç, A. (2022). *Seramik Uygulamalar Özelinde Sanat ve Terapi*. Ankara: Yayınlanmış Yüksek Lisans Tezi, Seramik Anasanat Dalı.
- Lankston, L., Cusack, P., Fremantle, C., & Isles, C. (2010). Visual Art in Hospitals: Case Studies and Review of the Evidence. *Journal of the Royal Society of Medicine*, vol.103(12), 490-499.
- Nanda, U., Barbato Gaydos, H. L., & Nathorn, K. W. (2010). Art and Posttraumatic Stress: A Review of the Empirical Literature on the Therapeutic Implications of Artwork for War Veterans with Posttraumatic Stress Disorder. *Environment and behavior* 42,3 , 376-390.
- Nash, P., Darby, K., & Nash, S. (2015). *Spiritual Care with Sick Children and Young People: A Handbook for Chaplains Pediatric Health Professionals, Arts Therapists and Youth Workers*. UK: Jessica Kingsley Publishers.
- Read, M., Sugawara, A., & Brandt, J. (1999). Impact of Space and Color in The Physical Environment on Preschool Children's Cooperative Behavior. *Environment and Behavior*, 31, 413-428.
- Salderay, B. (2018). Hastane Ortamında İyileştirme Sürecine Katkı Sağlayan Disiplinler Arası Bir Tasarım: Kemali Hoca'nın Gökyüzü Odası Projesi. *The Journal of International Lingual, Social and Educational Sciences Volume: 4, Number: 2*, 263-276.
- Sholt MA, M., & Gavron MA, T. (2006). Therapeutic Qualities of Clay-work in Art Therapy and Psychotherapy: A Review. *Journal of the American Art Therapy Association, Volume 23 Issue 2*, 66-72.
- Shumaker, S. A. & Reizenstein, J.E. (1982). Environmental factors affecting inpatient stress in acute care hospitals. In: Evans GW, ed.



- Environmental stress. New York: Cambridge University Press, 179-223.
- Suter, E. (2007). Choosing Art as a Complement to Healing. *Applied Nursing Research* Vol 20, 32-38.
- Pati, D., & Nanda, U. (2011). Influence of Positive Distractions on Children in Two Clinic Waiting Areas. *HERD*, vol. 4(3), 124-140.
- Tse, M. M., Ng, J. K., Chung, J. W., & Wong, T. K. (2002). The Effect of Visual Stimuli on Pain Threshold and Tolerance. *Journal of Clinical Nursing*; vol. 11, 462-469.
- Ulrich, R. S., & Gilpin, L. (2003). Healing Arts: Nutrition for the Soul. In S. B. Frampton, L. Gilpin, & P. A. Charmel, *Putting Patients First: Designing and Practicing Patient-Centered Care*, (pp. 117-146). New Jersey, U.S.: Jossey-Bass.
- Ulrich, R., & Gilpin, L. (1999). *Healing Arts. Nursing*, 4(3), 128-133.
- Ulrich, R. S., Zimring, C., Zhu, X., DuBose, J., Seo, H. B., Choi, Y. S., . . . Joseph, A. (2008). A review of the research literature on evidence-based healthcare design. *HERD: Health Environments Research & Design Journal*, 1(3), 61-125.
- WHO. (2022, 11 10). Retrieved from <https://www.euro.who.int/en/health-topics>
- WHO. (2022, 11 09). World Health Organization. Retrieved from <https://www.euro.who.int/en/health-topics>
- WHO. (2022, 10 28). World Health Organization. Retrieved from <https://www.who.int/about/governance/constitution>

### Resume

*Elif Özgen completed her undergraduate education at Hacettepe University GSF Department of Interior Architecture and Environmental Design in 2011, master's degree in 2014 and proficiency in art in 2022. Between 2010-2015, she worked as an interior architect in various companies in the private sector. She worked as a Research Assistant at Hacettepe University between 2015-2022 and at İnönü University between 2022-2023. As of 2023, she continues to work as an Assist. Prof. Dr. at Bolu Abant İzzet Baysal University Faculty of Architecture. Her research interests include healing spaces, art and healing, interior design of healthcare facilities etc.*

*Assist. Prof. Dr. Pınar Biçici Çetinkaya completed her undergraduate education at Dumlupınar University Faculty of Engineering in 2005 and completed her master's degree in 2010. In 2006, she was appointed as a lecturer at İnönü University Faculty of Fine Arts and Design. She is currently working as a Assistant Professor Dr. in the Ceramics Department at the same university.*