Journal of Materials and Environmental Science
ISSN : 2028-2508
e-ISSN : 2737-890X
CODEN : JMESCN
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J. Mater. Environ. Sci., 2026, Volume 17, Issue 10, Page 1450-1459

http://www.jmaterenvironsci.com

Emphasis on Using the Principles of Traditional and Islamic Medicine in the Architectural Design of Urban Buildings

Ali Majidpourkhoei*

Department of Civil Engineering, Technical and Vocational University (TVU), Tehran, Iran
**Corresponding author, Email address: amajidpour@tvu.ac.ir*

Received *25 Sept 2026,*
Revised *24 Oct 2026,*
Accepted *26 Oct 2026*

Keywords:
- ✓ *Traditional medicine;*
- ✓ *Islamic medicine;*
- ✓ *Material temperament;*
- ✓ *Color temperament;*
- ✓ *Architectural design*

Citation*: Ali Majidpourkhoei (2026) Emphasis on Using the Principles of Traditional and Islamic Medicine in the Architectural Design of Urban Buildings, J. Mater. Environ. Sci., 17(10), 1450-1459.*

Abstract: Unprincipled and incorrect architectural design without regard to the principles of traditional medicine can cause various diseases and symptoms such as discomfort, depression, sadness, and the like, which usually become apparent over time. Architectural design based on traditional medicine will have a great impact on the physical, mental, and spiritual health of individuals in society. The main principles of traditional and Islamic medicine are to create a balance in the spiritual and physical body of a person, and if a person reaches the balance point, he will have a calm spirit and a healthy body, a society whose architecture is also based on creating balance and serving the peace and health of individuals. This research addresses the need to pay attention to the temperament of building colors, building materials, and climates, as well as paying attention to diseases resulting from failure to observe the principles of traditional and Islamic medicine in the architectural design of urban buildings, and then discusses methods for using colors and building materials that match the temperament of people in each climate. The author's goal in this article is to emphasize the use of the principles of traditional and Islamic medicine in the architectural design of urban buildings. It is hoped that this text has been able to take a small step towards explaining the necessity of designing the architecture of urban buildings based on the principles of traditional and Islamic medicine.

1. Introduction

Over the years, architectural design has had a significant impact on human life, and as it has changed from traditional to modern, human life has also undergone changes. Urban architectural design has always reflected the customs and traditions of societies, and in the past, human houses were designed and built in a way that reflected this issue. In the past, many houses were designed entirely based on the needs and orders of individuals, and the architects of that era designed these houses correctly based on their experience and then built them. Of course, all stages were carried out traditionally. However, currently, urban housing construction is carried out with the help of modern tools and materials, which unfortunately do not have any effect on the construction of these houses and do not have a high priority. Designing and building an urban house without observing its basic principles and without paying attention to the principles of traditional medicine may cause various diseases, discouragement, and discomfort in people in the long term.

There are usually many definitions about the lifestyle of people, which can be generally and briefly defined as the way each person lives their life. People usually have different habits in life for eating, wearing clothes, and interacting with different people and environments, all of which are included in the lifestyle of people. One of the most important factors that greatly affect the lifestyle of people is architectural design. Currently, with the studies conducted, many doctors emphasize that the architectural style and type of house design have a great impact on the mood of people. Architecture means the art of changing and organizing space in a desirable way. The smallest details during the stages of building a house have a great impact on the lifestyle of people in society. It can even be said with confidence that architectural design is one of the most important options that affect the mood of a society, and by doing it properly, a happy and active society can be achieved. In modern societies, many people spend most of their time at home, which increases the importance of architectural design. Architectural design based on traditional medicine will have a great impact on the mental and physical health of the people in the community.

In the present century, architectural researchers have paid attention to the issue of the relationship between humans and the environment and its ability to be translated into the language of environmental design and architecture. In this regard, understanding humans and the characteristics of living environments and work spaces and how to establish a connection between these two factors is important. Every human being intervenes in the environment according to his level of awareness, knowledge and technical ability. It is the environmental and spatial conditions that determine the limits and manner of his actions and behaviors (Khezerlou & Shafipouryourdshahi, 2024). With the escalating energy consumption in urban buildings and the consequent environmental impacts, the adoption of advanced energy optimization methods in architectural design has become imperative. These methods enables architects to make informed design decisions in early stages while preserving functional and aesthetic requirements, ultimately contributing to the creation of buildings with optimized energy consumption and reduced environmental footprint (Rahmati, 2025). Urban architecture, as a key element in the design of living spaces, has a profound impact on the mental health of residents. Urban spaces, with their specific characteristics, can lead to feelings of calm or anxiety in individuals. Attention to human centered design principles and the psychological needs of residents in urban architecture can lead to an improvement in their quality of life and mental health. Therefore, architects and urban planners should seriously consider this issue and strive to create spaces that are not only beautiful and attractive but also have a positive impact on residents' mental health (Behrooz, 2023).

Understanding the concepts proposed in this article and the methods presented related to it requires a complete knowledge of the principles of architectural design as well as a complete mastery of the principles and foundations of traditional and Islamic medicine. For this purpose, a number of selected and studied texts on the principles and foundations of traditional and Islamic medicine are included in the references section (Sina, 1973; Howell, 1987; Scarborough, 1988; Jacquart, 2008; Lutz, 2002; Osler, 2004; Pormann *et al*., 2007). In the meantime, it can be said with confidence that Avicenna's book is one of the most important books in the field of traditional medicine. The Canon of Medicine is a medical encyclopedia in five books compiled by Avicenna and completed in 1025 AD. This book is one of the most influential works of its time. This book provides an overview of contemporary medical knowledge in the Islamic world, which was influenced by previous traditions, including Greco-Roman medicine (especially Galen), Iranian medicine, Chinese medicine, and Indian medicine.

The translation of the Canon of Medicine from Arabic into Latin in the 12th century had a major impact on the development of medieval medicine, and it became the standard textbook for teaching in European universities until the early modern period (Siraisi, 1987). The Canon of Medicine remained a medical reference for centuries. It set the standard for medicine in medieval Europe and the Islamic world, and was used as a standard medical textbook in Europe throughout the 18th century (Mcginnis, 2010). Canon of Medicine is an important text in traditional medicine (Heller *et al*., 2001). In Ibn Sina's book, valuable information is provided about the brain and its related diseases and disorders, including headaches (Abokrysha, 2009; Zargaran et al., 2013), cardiovascular and pulsology (Celik, 2009; Shoja *et al*., 2009), eyes and related diseases, including cataracts (Nejabat *et al*., 2012), the effects of drugs (Nasser *et al*., 2009), and others. The aim of this research is to emphasize the use of the principles of traditional and Islamic medicine in the fundamental design of urban buildings. The presented information also plays an effective role in understanding the main concepts and their practical application.

2. Methodology

2.1 The Importance of Temperament in Traditional Medicine

Temperament is one of the key concepts that play an important role in medicine and medicine, as well as in psychological and philosophical discussions in the field of psychology. Philosophers, based on ancient natural sciences, consider the universe to be composed of four elements: heat, cold, dryness, and moisture. Based on the principles of Islamic philosophy and wisdom, the human temperament is at the highest level of moderation compared to the temperament of other living beings in terms of the type of combination of elements and the quality of mixing. This moderation has created physical talents in humans that provide humans with the ability to achieve spiritual transcendence. Temperament is the basis of prevention and treatment in traditional and Islamic medicine. According to the principles of Islamic medicine, the presence of all four natures in humans is necessary, and the main issue of the dominance of each nature is the reasons and method of its treatment. In general, every human being does not have a fixed temperament throughout his life due to the constant change of temperament, and all natures exist in him in a modified form.

Dry temperaments: Dry temperaments are difficult to influence; but if they accept the influence, they hardly lose it. In other words, dry temperaments have a low capacity to accept external stimuli and are more easily stimulated. Exposure too many environmental stimuli by dry temperaments will increase endocrine responses such as anxiety, stress, and anger. Therefore, dry temperaments do not have much desire to receive external stimuli, and they show high resistance and stability against change and transformation. This resistance to accepting the influence causes instability, behavioral instability, excitability, and high sensitivity. Dry temperaments are not agreeable people and show high stability against change.

Wet temperaments: Wet temperaments are known for being quick to form and change quickly. This group has a greater capacity to accept environmental stimuli and is less exposed to stress, anger, and anxiety. Moist temperaments have a high tendency to receive external stimuli, lack of resistance and rapid change in ideas and beliefs, and high agreeableness are among the personality traits of this group.

Warm temperaments: Warm temperaments seek to make an impact and create change in the environment. Warm temperaments are extroverted, tend to gain a lot of experiences and create a lot

of changes in the environment. Cold Temperaments: Coldness results from the intensity of stillness and immobility, which brings with it heaviness and turbidity.

Cold temperaments have a lower ability to respond to stimuli. Introversion, low energy and mobility, reticence, etc. are among the personality traits of this group. Cold temperaments require fewer stimuli compared to warm temperaments.

2.2 An interpretation of the temperament of each geometric shape

The triangle is the most stable geometric shape, in other words, it shows great resistance to deformation and transformation. The triangle is more difficult to shape than the circle, but it is also more stable. It is like people with a hot and dry temperament, and its characteristics correspond to the hot and dry (bilious) temperament in terms of appearance. On the other hand, fire, which has a hot and dry temperament, tends to take a pyramidal shape or, in other words, a triangular shape when it is drawn; this is also a reason for the hot and dry temperament of the triangle.

Among geometric shapes, the square has a special stillness. Just as people with a cold and dry temperament are regular people and have specific frames, the square form is also a form enclosed in a specific frame with equal sides and angles. Among geometric shapes, the square has the most compatibility with the cold and dry (soda) temperament.

The circle has a special place in the view of Muslim scientists, both in the treatise of Al-Farabi and in the treatise of Bozjani, the prominent mathematician of the fourth century, the circle, according to which the spherical volumes and movements of celestial bodies are based, has a special status. Among geometric shapes, the circular form has great fluidity, energy and mobility, and has uniform and smooth surfaces, which are completely in accordance with the warm and moist temperament (phlegmatic). On the other hand, air, like the circular form, has a warm and moist nature due to its softness, lightness. In traditional medicine, water has a cold and moist temperament and its place in the universe is above the earth and below the air. Just as octagonal forms, etc. is used in the construction of domes and adapting the circular form to a square plan, it can be concluded that other polygons (hexagonal, octagonal, decagonal, etc.) have a cold and moist temperament (phlegmatic). In fact, polygons have some of the characteristics of a circle and some of the characteristics of a square, just as they have adopted the characteristics of being wet from a circle and being cold from the earth. It should be noted that the more sides there are, the less dry it is and the moister it is. For example, a hexagon has less moisture than an octagon.

2.3 Temperament of colors and building materials

Color is considered an important option in architectural design that has a direct impact on people's moods. Someone who works as an architect must consider the effect of the color scheme of all these items, such as stone, brick, and other materials used. For example, blue has a great effect on creating a calm mood, and using yellow makes people happy and warm. Colors such as orange and red also have a great effect on stimulating people's moods. Color affects emotions, physical condition, mood, and mental states. For example, the color of the user's environment makes them think about warm feelings and vice versa, cold feelings and depression. Physical studies have proven that colors can create physical and unstable effects, such as increasing or decreasing blood pressure, heart rate, sweating, respiratory system, and even brain wave patterns. How color is used and how the space is arranged can be an effective factor in understanding it. Red can represent passion, excitement or warmth depending on its intensity, but it can also be associated with fear or danger. The use of

orange in architecture can create relaxing, bright and friendly spaces. Orange spaces are calmer than red but still bright and exciting. Yellow is consistently bright and cheerful and can be used in both red and yellow spaces. Yellows can be more calming than orange. Green, especially emerald green or pastel green, is very calming. However, if green is pale, it can be strangely clinical, especially when mixed with white. Green walls and green ceilings both indicate stability and warmth. The temperaments of the colors are given in the Table 1.

Table 1. Temperament of colors

Color	Temperament
White	Cold
Black	Cold
Red	Warm
Green	Warm
Blue	Moderate
Yellow	Warm

In this section, the author's opinion is presented on the nature of some commonly used construction materials:

Concrete: Concrete and anything made of concrete has a cold nature. Wet concrete has a colder nature. In general, it can be said that concrete is one of the coldest construction materials.

Brick: The nature of well-baked, dry brick is warm. The better and more baked and drier the brick is the more warm it is. Raw brick has a cold nature, and the nature of damp brick is cold.

Pottery: The nature of well-baked, dry pottery is warm.

Concrete blocks: The nature of concrete blocks is cold.

Iron and steel: The nature of iron and steel is cold and to some extent depends on the environment, in other words, in a hot environment, they have a warm nature and in a cold and temperate environment, they have a cold nature. Heated iron and steel have a warm nature, and iron and steel have a cold nature in cold and temperate environments.

Building stones: Building stones have a cold nature.

Mosaic: All cement and concrete mosaics have a cold nature.

Ceramics: The nature of building ceramics is cold. Tiles also have a cold nature.

Wood: Most dry wood has a warm nature.

Glass: The nature of glass is cold.

Considering the nature of the materials used in buildings, it can be said that the warmest building, in terms of traditional medicine, is a building in which the nature of most of the materials used is warm, and the coldest building is a building in which the nature of most of the materials used is cold.

2.4 Architectural design styles based on the principles of traditional medicine

One of the architectural design styles that were prevalent everywhere in the past is traditional architecture. Traditional architecture did not use advanced tools and equipment, but houses built using this architectural style have a unique elegance and charm, so that architects and designers of later generations have also taken this architectural style as a model. Native or traditional architecture is a type of architecture that uses local, natural, and accessible resources and materials. This architectural style is completely linked to the lifestyle of the people, the social structure, the natural and climatic conditions of the region, and the temperament of humans. Traditional architecture reflects the culture of the society. The excessive attention of architects to details and human needs is one of the most important points in relation to traditional architecture. For example, in most old houses, the entrance doors were double-leafed and wooden, and each of these leaves had a special knocker. In the past, in traditional architecture, rooms were designed for specific seasons of the year. Winter rooms were often designed compactly and with low ceilings to make them easier to heat. However, rooms designed for the summer season were large and had high ceilings. In this architectural design style, colored lattice windows were often used. For this reason, in the morning, when the sun rose, the light from these windows reflected onto walls full of niches, adding beauty and warmth to the room. In traditional architecture, the courtyard was the heart of the house. Small and large rooms were located around the courtyard to maximize the use of light, air, and the view of the courtyard. These types of buildings often lacked today's concrete or metal frames, but in some cases the body was reinforced with walnut or oak wood and the ceiling beams were also made of wood. The roof of these buildings was of the gable type, depending on the climate. In some cases, the roofs of buildings were covered with thatch to prevent moisture from entering. Most of these buildings, especially large mansions, have incredibly beautiful and unique arches. These arches had wide openings, without any supporting metal or concrete frameworks, and were built only with conventional materials of their time, such as stone, wood, and adobe. Traditional architecture, known as vernacular architecture, uses more materials that are compatible with human nature and the environment. However, modern architecture pays less attention to environmental issues and climatic conditions and compatibility with human nature in choosing materials. For example, the design of modern buildings is such that artificial light must still be used from the first hours of the day when sunlight shines, but in buildings with traditional architecture, only natural light is used during the day. Of course, in recent years, with the growth of technology, attention has increased to the interaction of humans and the environment in modern architecture. Many modern lighting systems have sensors that adjust the amount of light according to the ambient light, thereby helping to save energy. The most obvious difference between modern architecture and old architecture is the difference in the type of materials. In the past, structures were usually made of materials that were part of the materials and materials of the living space. While modern architecture often uses metal or concrete and glass structures. The appearance of old and modern structures and their comparison shows one of the important aspects of the environment and the use of space. Old structures were very luxurious, magnificent and built in a horizontal area with large distances. In fact, buildings were scattered. Today, in modern architecture, due to the lack of space, there is an attempt to be more compact and build vertical buildings. The use of technology is more visible in modern architecture. With the advancement of technology, modern architecture has moved towards materials that consume less energy and are more sustainable. Modern designs today use sources such as solar energy and rainwater to provide energy. Both traditional and modern architectural styles have their own benefits

and advantages and can be used to have an environmentally friendly lifestyle based on the principles of traditional medicine. But it is better to choose the middle ground. Traditional and modern architecture can be combined and give a unique expression to the structure. The fact is that changes in human societies and human needs have directly or indirectly led to architectural developments. The best way is to use technology to benefit from the positive and sustainable points of traditional and modern architecture in today's constructions in order to adapt to the nature and temperament of humans.

3. Results and Discussion

3.1 The impact of architectural design based on traditional medicine on human health

Architectural design based on traditional medicine has a great impact on the lifestyle and physical and mental health of individuals, some of which are as follows:

First, the effect of architectural design based on traditional medicine on the physical and mental health of individuals will be. One of the cases that can be mentioned is traveling to another part of the country or entering a new space, where this change of location and situation will change the feelings of individuals. Many feelings within humans, such as happiness, sadness, being energetic, greatness, etc., are among the effects that people get from the space around them when going to new places. Doing architecture incorrectly and without paying attention to the principles of traditional medicine can cause people to become ill and develop symptoms such as discomfort, depression, sadness, and such things, which usually become apparent over time. Architectural design based on traditional medicine will have a great impact on the mental and spiritual health of individuals in society. It is better to know that human senses in a normal state have a great impact on the way people think and concentrate. If human senses are attracted to positive things and beautiful views, this will create a gentle and happy mood. For this reason, the existence of good architecture can have a direct impact on human behavior, which in turn brings more happiness and focus to people, and conversely, if the art of architecture is not implemented well, it can cause people to be unhappy and depressed in the long run. Of course, apart from architectural design, other factors such as plants, the amount of lighting, and the nature of the materials and materials used in the design of the house can affect mental and emotional health. Feelings of security are another effect of architectural design on people, as being in some places gives people a sense of security and peace, while being in one place will cause a sense of fear and lack of security. In general, architectural design should cause people to feel calm and secure. We all live in an environment that is prepared for growth and development. Many of the energies that flow towards us from around us can play a key role in our self-esteem and sense of satisfaction. Any problem in this regard may cause a sense of dissatisfaction and discomfort. Research has proven that the more people have a clean and healthy environment, the more their positive performance will be successful and improved in every field. In a good architectural style, the environment should be designed based on the needs and use of people, and the designs should be based on these needs. For example, the presence of sufficient light in the environment will regulate blood circulation properly and can also improve people's performance. For this purpose, the house should be designed in such a way that the light shines into it in the right amount. Observing this issue will be more important in places such as nursing homes and kindergartens. In general, architectural design, the nature and type of materials used in the environment will have a significant impact on the emotions of the people present in the environment. For this reason, designers and architects need to pay attention to these matters. Also, the building in question should be designed in line with the

needs of society and the times so that it ultimately forms in accordance with the wishes of the audience. The existence of characteristics such as differences in the type of people's moods, introverted or extroverted personalities and many such cases will be the result of different architectures.

One of the most important things to consider in architectural design is the amount of light in the house during the day. This refers to parts of the house such as windows and light-reflecting areas that allow sunlight to easily enter the house. Allowing sunlight into the house has many benefits, one of which is saving on energy consumption. Researchers have proven that the light emitted by the sun can regulate the body's melatonin hormone and also have a positive effect on patterns such as sleep and eating. One of the most important benefits of sunlight is reducing symptoms of depression in people. Undoubtedly, the size of a house has a great positive effect on people's mood and their sense of comfort. Living in a small house will cause people to be dissatisfied and also feel uncomfortable when resting, which will consequently have negative effects on the person's morale and morale. Usually, in houses built in ancient times, the issue of privacy was very much respected, and these houses, with the presence of different rooms, provided people with a sense of comfort and convenience. Of course, this issue is much less observed in today's homes.

Color is an important option in architectural design that has a direct impact on people's moods. Someone who works as an architect must consider the effect of the color of all these items, such as stone, brick, and other materials used. For example, blue has a great effect on creating a calm mood, and using yellow makes people happy and warms them up, and colors such as orange and red have a great effect on stimulating people's moods. Providing a space to increase communication in house design is a very important thing. Houses should usually be built in a way that family members can communicate with each other at different times of the day. This does not mean asking family members to gather together for hours, but rather that the architectural style of the house should be chosen in a way that increases the spiritual communication of the people present in the house. In short, the house should be designed in such a way that family members interact with each other for different purposes throughout the day. Currently, in many metropolitan cities, buildings are built in the form of skyscrapers, which of course can be a bit boring for people to live in. Even the materials used in building houses may have an impact on people's moods. Usually, people living in areas that consist of ordinary buildings enjoy more peace and comfort, which makes the living environment important in the quality of life of people. In the current situation, one of the reasons why many people living in metropolitan cities move to the outskirts of the city and towns is perhaps the peace and comfort of those areas.

Yards and green spaces are one of the important things in architectural design that directly affects people's morale and health. The presence of yards and green spaces in homes can greatly reduce problems such as depression and generally improve the mental and physical health of people in society. Therefore, it is necessary to give importance to this issue in the design of modern houses and, for example, a park or a small green space should be considered for residential complexes.

3.2 Architectural design that matches the temperament in each climate

Knowing that all beings and objects in this world are composite and have temperaments, by stating the temperament types of common materials today, the temperaments of the four climates of Iran have been examined, and the relationship between building materials and different climates and

the impact of the two on the health of building residents has been analyzed. The use of colors and materials with a cold and dry temperament in a mountainous region with a cold and dry temperament creates a predominance of cold and dryness in the residents of that region and building, which causes cold and dry diseases. The use of colors and materials with a warm and dry temperament in areas dominated by the fire element creates a predominance of heat and dryness in the residents. Also, the use of warm and wet colors and materials in a hot and humid climate causes the occurrence of heat and moisture-related complications in the residents. As a rule, the use of cold and wet colors and materials in a temperate and humid climate causes the occurrence of cold and wet complications. In traditional medicine, there is a general principle called treatment with opposite. In order to maintain balance in the relationship between humans and their environment, health, and regulation of the energies emitted from the environment, and to prevent one of the four elements from dominating the human body and causing diseases, according to the principle of balance and treatment by opposites, the coldness and dampness prevailing in the northern region are eliminated with warm and dry materials, the heat and dampness of the southern coasts of Iran are eliminated with cold and dry materials, the coldness and dryness of the mountainous region of western Iran are eliminated with warm and wet materials, and finally the heat and dryness of the central plateau of Iran are eliminated with cold and wet materials, and the health level of the residents of the building and the region is increased in this way.

Conclusion

It seems that architectural design based on the principles of traditional and Islamic medicine can eliminate a large part of the chaos and disorder of contemporary architecture. Methodical and principled architecture can serve humanity and achieve perfection. We believe in architecture that creates a rational space in which creativity emerges, not a space where creativity exists only and reason has a hard time fitting in at the end of it. Therefore, the use of traditional and Islamic medicine is merely an introduction and introduction to a methodical architecture. In fact, understanding the sciences that create a rational architecture is needed for every architectural world. The use of traditional and Islamic medicine sciences causes the essence of architecture to act in the direction of the health and well-being of humanity. It also gives architecture a principled and useful direction and policy and prevents futility and directionless and architecture based on useless forms that have become extremely popular. The reality is that changes in human societies and human needs have led to important developments in urban architectural design. The best way is to utilize technology to benefit from the positive and sustainable aspects of architecture based on the principles of traditional medicine in today's urban constructions in order to adapt to the nature and temperament of humans. Paying attention to the principles of medicine and human temperament in a professional manner will establish a new style in urban architectural design.

Disclosure statement: *Conflict of Interest:* The authors declare that there are no conflicts of interest.
Compliance with Ethical Standards: This article does not contain any studies involving human or animal subjects.

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