

არქიტექტურა და ადამიანის ემოციები

მარიამ ბენაშვილი
სტუ-ს დოქტორანტი

რეზიუმე

სტატია „არქიტექტურა და ადამიანის ემოციები“ სწავლობს არქიტექტურული დიზაინის მნიშვნელოვან გავლენას ადამიანის ემოციებსა და ქცევებზე. ის ამტკიცებს, რომ გარემომ, რომელშიც ჩვენ ვცხოვრობთ, ისეთი ელემენტებით, როგორიცაა განათება, ფერი, სივრცითი მოწყობა და მასალები, შეიძლება ღრმად იმოქმედოს ჩვენს ფსიქოლოგიურ კეთილდღეობაზე და სოციალურ ურთიერთქმედებებზე. არქიტექტურა აღწერილია, როგორც ადამიანზე ორიენტირებული ხელოვნება, რომელიც პირდაპირ გავლენას ახდენს განწყობასა და ქცევებზე, გარკვეული დიზაინით ხელს უწყობს სიმშვიდეს და პროდუქტიულობას.

სტატია იკვლევს, თუ როგორ იწვევს სხვადასხვა ფერები კონკრეტულ ემოციურ პასუხებს - თბილი ფერები (როგორიცაა წითელი და ნარინჯისფერი) ენერგიას აძლევს და ასტიმულირებს, ხოლო ცივი ფერები (როგორიცაა ლურჯი და მწვანე) სიმშვიდეს უწყობს ხელს. ნეიტრალური ფერები გავლენას ახდენს სივრცის აღქმაზე და ემოციურ სტაბილურობაზე. ასევე საუბარია ბუნებრივ სინათლეზე, ხაზგასმულია მისი დადებითი ზემოქმედება ფსიქიკურ ჯანმრთელობაზე, ცირკადულ რიტმზე და საერთო განწყობაზე. სტატია ამას უპირისპირებს ხელოვნურ განათებას, ხაზს უსვამს მის პოტენციურ სარგებელსა და ნაკლოვანებებს, რაც დამოკიდებულია მის მახასიათებლებზე.

არქიტექტურა ემსახურება კულტურულ გამოხატულებას, რომელიც ასახავს საზოგადოების ღირებულებებს. კულტურული იდენტობის შესანარჩუნებლად აუცილებელია ისტორიული არქიტექტურის შენარჩუნება. სტატიაში ხაზგასმულია, რომ ურბანული დაგეგმარება პირდაპირ გავლენას ახდენს საზოგადოების ჯანმრთელობაზე მწვანე ფართების უზრუნველყოფის, ეფექტური ინფრასტრუქტურისა და დაბინძურების შემცირების გზით, რაც მხარს უჭერს ფიზიკურ და გონებრივ კეთილდღეობას.

საკვანძო სიტყვები: ფერი, ემოცია, ორნამენტი, ჰარმონია, სტილი, ეკოლოგია, განათება, ჩრდილი, სივრცე.

ARCHITECTURE AND HUMAN EMOTIONS

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ABSTRACT

The article “Architecture and Human Emotions” delves into the significant influence of architectural design on human emotions and behaviors. It asserts that the environments we inhabit—shaped by elements such as lighting, color, spatial arrangement, and materials—can profoundly affect our psychological well-being and social interactions. Architecture is described as a human-centered art that directly impacts moods and behaviors, with certain designs fostering calm and productivity, while others may induce stress or anxiety.

The article examines how different colors elicit specific emotional responses—warm colors (such as red and orange) provide energy and stimulation, while cool colors (like blue and green) promote calmness. Neutral colors affect the perception of space and emotional stability. It also discusses natural light, highlighting its positive impact on mental health, circadian rhythms, and overall mood. In contrast, the article addresses artificial lighting, emphasizing its potential benefits and drawbacks, which depend on its characteristics.

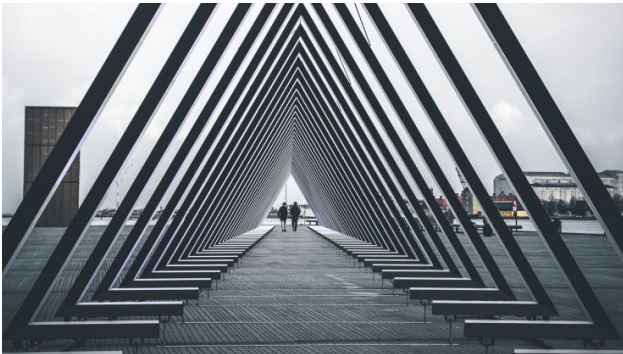
Architecture serves as a cultural expression that reflects the values of society. Preserving historical architecture is essential for maintaining cultural identity. The article emphasizes that urban planning directly affects the health of society by ensuring green spaces, providing efficient infrastructure, and reducing pollution, which supports physical and mental wellness.

keywords: Color, emotion, ornament, harmony, style, ecology, lighting, shadow, space

INTRODUCTION

The spaces in which we live, work, and walk have a significant impact on our emotional and behavioral responses. However, we often fail to realize how the architectural environment influences our daily lives. Architecture is not merely a combination of walls and roofs; it is an essential part of human experience that affects our mood, thinking, and behavioral habits. Through the selection of lighting, colors, spatial arrangement, and materials, architects can create environments that either calm and motivate us or, conversely, induce stress

and anxiety. The design of public and private spaces, urban planning, and building structures not only shape individual psychological states but also define social interactions. For example, open and integrated spaces encourage social communication, while closed and isolated environments can lead to social alienation. At the same time, the architectural planning of cities and neighborhoods can directly influence people's behavior and lifestyle, affecting everything from their sense of security to their level of physical activity.



In this article, I will explore how architecture impacts human emotions and behavior; how spatial organization can contribute to psychological well-being; and how modern urban planning incorporates these principles into everyday life. Researching this topic is important not only for architects and designers but for everyone, as our surroundings largely determine our mood, productivity, and overall quality of life.

ARCHITECTURE AND HUMAN EMOTIONS

The spaces in which we live and act have a much greater influence on our inner state and mood than we often realize. Architecture is not merely the construction of buildings or urban planning; it is a human-centered art that shapes emotions, behaviors, and experiences. Walls, symmetry, lighting, colors, and spatial arrangement—though seemingly inanimate—play a crucial role in determining our psychological responses. Some environments make us feel calm and secure, while others evoke anxiety and restlessness.



One of the most evident mechanisms through which architecture affects human emotions is lighting and color. Natural light adds warmth and coziness to a space, reducing stress and lowering the risk of depression. Modern research shows that colors can significantly influence mood: blue and green tones are associated with tranquility and harmony, whereas red and orange evoke energy and activity. Properly selected colors can enhance productivity, while poorly chosen ones may intensify feelings of anxiety.

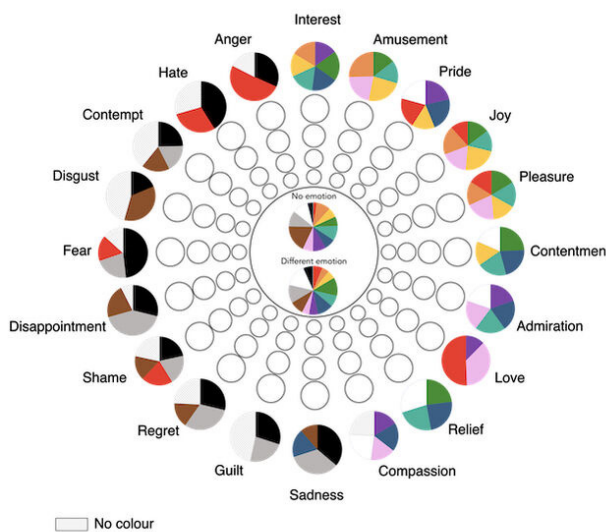
Beyond colors and lighting, architectural space plays a crucial role in shaping human emotions and behavior. High ceilings create a sense of freedom in thinking, while low ceilings enhance focus and precision. Open spaces facilitate social interaction and communication, whereas narrow and enclosed areas reinforce feelings of isolation and solitude. This is why the design of public spaces, workplaces, and residential homes should be based not only on functional criteria but also on psychological and emotional considerations. Architecture also plays a significant role in fostering a sense of security. Naturally lit, spacious, and open environments create a feeling of safety, whereas dark and confined spaces can evoke anxiety and uncertainty. Urban design—parks, squares, and public spaces—not only determines the functionality of a city but also has a profound impact on people's emotional well-being.

Thus, architecture influences human emotions far beyond mere comfort or aesthetics. It is an inseparable part of our daily lives that can either be a source of peace and harmony or a trigger for stress and tension. For this reason, the architecture of the future should not be solely a reflection of technological progress; it must also serve human psychological and emotional well-being, creating environments that are not only functional but also spiritually calming and inspiring.

COLORS AND EMOTIONS

Our environment has a significant impact on our emotions and behavior, and one of the most powerful factors that shape our perception and mood is color.

Colors are not merely visual elements; they influence human psychology and emotional responses. For centuries, artists, psychologists, and architects have studied the effects of colors and used them to shape human feelings and experiences.



Colors alter the energy of a space, set the tone of the atmosphere, and affect the quality of our mood. For example, warm tones—red, orange, and yellow—are associated with activity, stimulation, and dynamism, whereas cool colors—blue, green, and violet—promote calmness, harmony, and spiritual balance.

WARM COLORS – ENERGY AND DYNAMISM

• **Red** – A strong and energetic color associated with passion, excitement, and warmth. Studies show that red increases heart rate and activity levels, which is why it is commonly used in restaurants and advertising to maximize emotional stimulation. However, an

overly saturated red environment can also trigger anxiety and aggression.

• **Orange** – A symbol of comfort, warmth, and creative energy. It evokes optimism and fosters friendly interactions. Orange is often used in school environments and sports facilities because it enhances motivation and encourages social communication.

• **Yellow** – The brightest and sunniest color, linked to optimism, joy, and intellectual stimulation. Psychological experiments indicate that yellow improves concentration and enhances creative thinking. However, overly intense yellow can sometimes cause irritation and restlessness.

COOL COLORS – CALMNESS AND BALANCE

• **Blue** – A color of peace and harmony that helps reduce stress and enhance mental tranquility. This is why blue is often used in offices and hospitals to create a sense of stability and trust.

• **Green** – The color of nature, new beginnings, and balance. It is associated with relaxation and spiritual equilibrium. The use of green in educational and work environments improves concentration and reduces stress.

• **Violet (Purple)** – A color of spirituality and creative thinking. Historically, it has been associated with nobility and wisdom. Today, violet is commonly used in meditation and relaxation spaces as it promotes inner peace and spiritual balance.

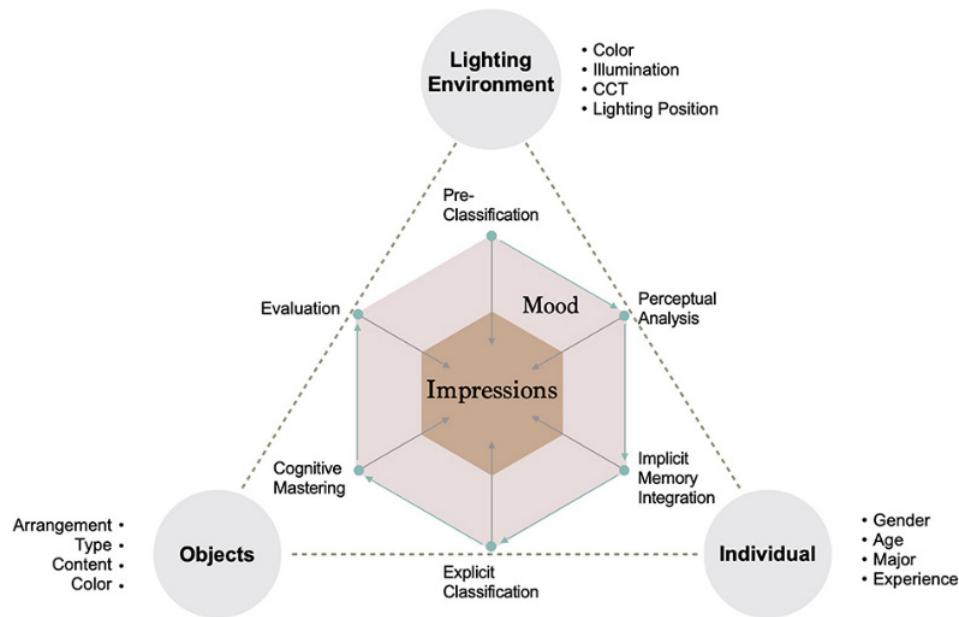
NEUTRAL COLORS – STABILITY AND ELEGANCE

• **White** – A symbol of purity and simplicity. It is often used in hospitals and minimalist designs to make spaces appear brighter and cleaner. However, an overly white environment may evoke a sense of emptiness and coldness.

• **Gray** – A neutral and elegant color that conveys professionalism and seriousness. However, excessive use of gray can be associated with dullness and emotional detachment.

• **Black** – A color of power and prestige, frequently used in modern architecture and high-end design. However, its excessive use can create a dark and heavy atmosphere.

Colors play a crucial role not only in aesthetics but also in emotional regulation. The right choice of colors in a space determines our mood, productivity, and behavior. Consequently, architects, designers, and psychologists actively apply color psychology to create environments that positively influence people. Proper color selection can be a powerful tool not only for enhancing living and working spaces but also for supporting public health and overall well-being.



LIGHTING AND ITS IMPACT ON HUMAN EMOTIONS AND BEHAVIOR

The perception of space and interaction with it largely depend on lighting. It is not merely a technical element that ensures visibility—lighting has profound psychological and emotional effects. It influences mood, energy levels, productivity, and overall well-being. Proper lighting creates a comfortable and harmonious environment, while inadequate lighting can cause stress, fatigue, and discomfort.

NATURAL LIGHT – A SOURCE OF HEALTH AND PSYCHOLOGICAL WELL-BEING

Natural light is one of the most powerful factors that shape human emotional and physical states. Daylight regulates biological rhythms, specifically the **circadian rhythm**, which affects sleep cycles, hormonal balance, and energy levels.

The Positive Effects of Natural Lighting:

- **Enhances mental health** – A lack of sunlight is linked to depression, particularly in cases of **Seasonal Affective Disorder (SAD)**.
- **Boosts productivity** – Research shows that natural light in workplaces increases concentration and reduces eye strain.
- **Improves sleep quality** – Exposure to sufficient natural light during the day helps regulate sleep cycles, promoting deep and restful sleep.
- **Reduces stress** – Sunlight increases serotonin levels, which improves mood and emotional stability.

For these reasons, modern architecture and urban design emphasize maximizing the use of natural light in buildings through large windows, glass facades, and open spaces.

Artificial Lighting – Its Benefits and Drawbacks

Artificial lighting serves as an alternative to natural light and is essential in spaces where daylight is limited. However, depending on the type and intensity of the lighting, it can have both positive and negative effects.

Warm and Cool Lighting

- **Warm Lighting (2700K-3000K, yellow tones)** – Enhances feelings of relaxation and coziness, making it ideal for homes, restaurants, and hotels. This type of lighting helps with unwinding and stress relief.
- **Cool Lighting (5000K-6500K, white or blue tones)** – Stimulates mental activity, increases alertness, and enhances productivity. It is commonly used in offices, hospitals, and educational institutions. However, overly intense cool lighting can cause eye strain and stress.

Blue Light and Its Effects

- **Blue light emitted from digital devices** (smartphones, computers, TVs) can negatively impact sleep cycles as it suppresses the production of **melatonin**, the sleep hormone. For this reason, it is recommended to reduce blue light exposure before bedtime and opt for warm lighting instead.

Disruptive vs. Balanced Lighting

- **Disruptive Lighting** (harsh shadows, uneven distribution) – Causes eye strain, disrupts concentration, and creates a tense environment.
- **Even and Diffused Lighting** – Promotes a comfortable atmosphere and enhances spatial perception.

LIGHTING AND EMOTIONS IN DIFFERENT SPACES Residential Spaces

Lighting in homes should create a cozy and relaxing atmosphere. To achieve this:

- Maximize **natural light** during the day.

- Use **warm lighting (2700K-3000K)** in the evening to enhance comfort.
- Avoid overly **cool or intense lighting** in the bedroom to promote better sleep.

Work and Educational Spaces

Lighting in offices and classrooms should enhance **concentration and productivity**:

- Offices should have **cool (5000K) or neutral (4000K) lighting** for alertness.
- A **combination of natural and artificial light** helps reduce eye strain.
- **Adjustable lighting systems (dimmers)** create a more comfortable work environment.

Public and Commercial Spaces

- **Restaurants and cafés** use warm lighting to create a cozy ambiance and enhance customers' mood.
- **Retail stores** require **contrasting and focused lighting** to highlight products effectively.
- **Hospitals** benefit from **dynamic lighting systems** that change throughout the day to help reduce psychological stress for patients.

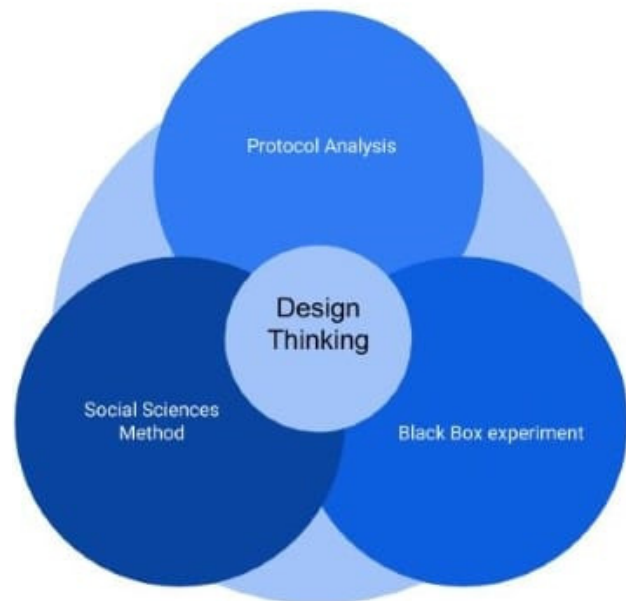
Lighting is one of the most crucial elements in architecture and design, significantly impacting human emotions, behavior, and health. Natural light enhances mental and physical well-being, boosts productivity, and reduces stress. When used correctly, artificial lighting improves comfort, functionality, and efficiency. Therefore, when designing spaces, it is essential to consider the psychological and biological effects of lighting to create an environment that positively influences people's lives.

ARCHITECTURE AND HUMAN BEHAVIOR

Daily life is constantly intertwined with the spaces where we live, work, walk, and interact. However, we often fail to realize the profound impact that architecture has on our behavior, emotions, and decision-making. Architecture is not merely an aesthetic or technical solution—it is one of the most significant tools for shaping human behavior. A well-designed and comfortable space promotes productivity, social interaction, and well-being, whereas a poorly organized and chaotic environment can lead to stress and confusion. Urban planning, building design, lighting, colors, and materials—all these elements subtly influence our actions.

The organization of space directly affects human behavior. For instance, open and spacious areas encourage communication and teamwork, whereas closed and compartmentalized spaces foster isolation. This is why modern offices increasingly implement open workspaces to facilitate more effective collaboration among employees.

Another example is urban planning—when a city is designed with wide sidewalks, bike lanes, and green



spaces, people are more likely to walk or cycle, promoting physical activity as well as social interaction. Conversely, traffic congestion and chaotic infrastructure contribute to frustration, increased aggression, and a reduced willingness to participate in public life

ARCHITECTURE AND SOCIAL BEHAVIOR

Architecture plays a crucial role in shaping social relationships. Public spaces such as parks, squares, and communal areas provide environments where people interact, spend time together, and engage in socialization. Residential complex design also reflects this influence: high-rise buildings without shared spaces reduce the likelihood of communication between neighbors. In contrast, neighborhoods with courtyards, green areas, and open spaces foster stronger community ties.



ARCHITECTURE AS A TOOL FOR BEHAVIOR MANAGEMENT

Interestingly, architecture not only influences but can also directly shape behavior. For example:

- **Building corridors and staircases** can be de-

signed in a way that encourages people to walk more instead of using elevators.

- **Shopping malls** are structured to keep customers engaged longer—product placement and lighting influence purchasing decisions.

- **Lighting and color choices in schools** improve students' concentration and learning efficiency.

These examples highlight that a well-planned architectural environment not only adapts to human needs but also subtly guides behavior toward specific actions.

THE ROLE OF SECURITY IN BEHAVIORAL FORMATION

A key factor in shaping behavior is the sense of security. Well-lit spaces with open views and minimal blind spots create a feeling of safety. Urban planners often design spaces to reduce crime risks. For example, dark, narrow underpasses and tunnels are often perceived as unsafe, causing people to avoid them. By contrast, well-lit, open areas with clear sightlines make people feel more secure and encourage greater use of public spaces.

BALANCING PRIVACY AND SOCIAL INTERACTION IN RESIDENTIAL SPACES

In residential environments, architecture must ensure both privacy and comfortable social interaction. If a building has poor acoustic insulation, noise from neighbors can lead to stress and conflicts. Thoughtful architectural design can mitigate such issues, creating a balance between personal space and community engagement.

THE PROFOUND INFLUENCE OF ARCHITECTURE ON HUMAN BEHAVIOR

Architecture influences human behavior in far more powerful and complex ways than we often realize. Proper spatial planning enhances social relationships, safety, productivity, and overall quality of life. Therefore, architects and urban planners should not only focus on aesthetic and functional aspects but also consider the psychological dimensions of human behavior when designing spaces.

ARCHITECTURE AS A SHAPER OF HUMAN EXPERIENCE

Ultimately, architecture is more than just buildings—it is the environment that creates opportunities, connects people, and guides behavior. A well-designed space makes individuals feel calm, comfortable, and motivated, which directly impacts their overall well-being and quality of life.

ARCHITECTURE AS A REFLECTION OF CULTURE AND IDENTITY

Architecture is far more than just buildings and urban landscapes. It is living history, an expression of cultural identity, and a bearer of societal values. Every structure and urban space reflects the passage of time, traditions, heritage, and the uniqueness of the communities that created them. Architecture does not merely mirror culture; it actively shapes lifestyles and collective memory. Cultural characteristics have always played a major role in architectural styles. Regional climate, local materials, ways of life, and religious traditions contribute to the uniqueness of architectural design. Whether it's Eastern temples, European Gothic cathedrals, Caucasian stone houses, or the skyscrapers of modern megacities, these structures are not just functional spaces but physical reflections of their era, ideas, and social development.

ARCHITECTURE AS A SYMBOL OF IDENTITY

Architecture is one of the most visible expressions of identity. Preserving historical and traditional architectural heritage is essential for maintaining national and cultural distinctiveness. For example, Georgia's traditional brick and stone buildings, cathedrals, and circular defensive towers not only reflect the country's historical journey but also shape its cultural code. Historic buildings often serve as pillars of national consciousness. Their destruction or alteration especially during wartime can be a deliberate attempt to erase cultural identity. This is why the protection of architectural heritage is not just an aesthetic issue but a crucial aspect of national security and cultural preservation.

ARCHITECTURE AS A REFLECTION OF SPIRITUAL AND CULTURAL IDENTITY

Architecture has always been a fundamental medium for spiritual and religious expression. Every civilization has shaped its religious structures according to its beliefs and philosophy, making these buildings not only places of worship but also bearers of cultural values.

For example:

- **Gothic cathedrals**, with their towering spires reaching toward the sky, reflect medieval Europe's desire for **proximity to the divine**.

- **Buddhist temples**, with their symmetry and minimalist aesthetics, emphasize **inner harmony and meditation**.

- **Medieval Georgian cathedrals**—such as **Gelati, Svetitskhoveli, and Alaverdi**—serve not only as religious centers but also as **cornerstones of Georgian cultural heritage**.

URBAN PLANNING AND CULTURAL SUSTAINABILITY

When designing cities, it is crucial to create public spaces that foster cultural exchange and strengthen social bonds. These spaces lay the foundation for a resilient and cohesive society.

One of the greatest challenges in modern architecture is finding a balance between modernization and traditional styles. In the 21st century, as skyscrapers and technologically advanced buildings dominate cityscapes, many countries face the risk of losing their traditional architectural identity.

For example:

- Arab countries incorporate traditional Islamic patterns into modern skyscrapers.
- Scandinavian architecture integrates natural materials and local aesthetics to preserve its unique character.



For Georgia, a country with a rich cultural history, it is essential that urban development does not come at the cost of national architectural identity. Modern buildings should be designed to blend with the local cultural context rather than contradict it.

ARCHITECTURE AS A GUARDIAN OF IDENTITY

Architecture is not just about aesthetic and functional design it is one of the strongest cultural expressions that can either strengthen or weaken a society's identity. Historical buildings, religious spaces, public squares, and contemporary urban planning all contribute to the cultural fabric that unites people and defines their collective consciousness.

In today's globalized world, where modernization often clashes with traditional values, it is essential for architecture to remain a key instrument in preserving cultural identity. Only through this approach can urban environments not only advance technologically but also retain their cultural and historical significance serving as a living reflection of identity, history, and heritage.

URBAN PLANNING AND PUBLIC HEALTH

The structure of a city can significantly impact the overall health and well-being of its population. Traffic congestion, lack of green spaces, and poor urban infrastructure contribute to higher stress levels and increased rates of disease. In contrast, eco-friendly urban planning supports healthy lifestyles and environmental sustainability.

REDUCING AIR POLLUTION AND ENHANCING GREEN INFRASTRUCTURE

Minimizing air pollution is a key priority in modern urban design. Effective strategies include:

- **Green buildings and vertical gardens**, which help filter the air and reduce urban heat islands.
- **Improved transportation policies**, such as expanding public transit and promoting cycling, to decrease vehicle emissions.

Additionally, efficient water and sanitation infra-

structure plays a crucial role in reducing the spread of infectious diseases. Modern architecture actively integrates sustainable water management systems to ensure clean water access and resource efficiency.

ARCHITECTURE'S ROLE IN PUBLIC HEALTH

Architecture is not merely an aesthetic discipline—it has a direct impact on human health and well-being. Key design elements that contribute to healthier environments include:

- **Natural lighting**, which boosts mental health and productivity.
- **Green spaces**, which reduce stress and encourage physical activity.
- **Proper ventilation**, ensuring indoor air quality.
- **Functional spatial planning**, optimizing living conditions.

As urbanization continues to grow, the responsibility of architects and urban planners extends beyond constructing buildings. Their decisions shape public health, mental well-being, and quality of life.

THE FUTURE OF HEALTHY AND SUSTAINABLE CITIES

Future architectural and urban projects must prioritize health-conscious and sustainable environments. Cities should not only be visually appealing but also designed to support human well-being, ensuring that urban spaces are livable, resilient, and beneficial to both people and the planet. Ultimately, architecture is much more than just shaping space it is the invisible director of our daily lives, influencing not only our comfort but also our physical and mental well-being. The environment in which we live, work, and interact directly affects our behavior, emotions, and overall quality of life.

Well-planned cities, natural light-oriented buildings, green spaces, and healthy living conditions together form the foundation that makes people happier, healthier, and more productive. Architecture, therefore, is not just about aesthetics or functionality—it is about



creating spaces that enhance human well-being and contribute to a more sustainable and fulfilling life.

In a rapidly evolving world, there is a growing awareness that architecture should not serve only aesthetic and functional purposes—it must be human-centered. When designing cities and residential spaces, health and well-being must be prioritized. Elements such as natural light, eco-friendly materials, public spaces that foster social interaction, and infrastructure that promotes physical activity should become integral components of every urban project.

If future architecture focuses solely on economic benefits without considering human health and emotional well-being, cities will become sources of stress, congestion, and isolation. Therefore, urban and architectural decisions must aim not only at material progress but also at improving the quality of life.

Ultimately, good architecture should be not only

functional but also humane—designed to promote harmonious, healthy, and fulfilling lives. Physical and mental well-being should not be an afterthought but a fundamental priority in modern architecture. Only through this approach can we create spaces that offer future generations a more balanced, comfortable, and enriching way of life.

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