

# Psychology of the Built Environment

*Where psychology meets our built environment.*

---

**Prepared by:**

**Asst. Prof. Dr. Sahar Hilal Al-Dujaili**



## Outline

---

1. Introduction
2. History
3. Importance of the built environment on psychological processes
4. Psychological effects of:
  - a. Space
  - b. Light
  - c. Colors

*“Buildings have a direct effect on our emotions. They can be depressing or uplifting, soothing or surprising, welcoming or forgiving.”*

*-Eberhard*

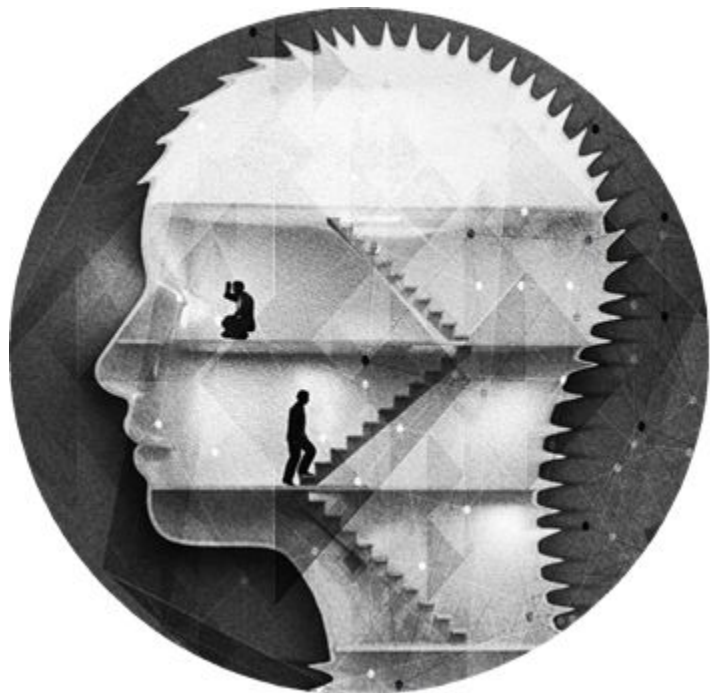


---

# 1 Introduction

---

**How does architecture affect our psychology?**



## What happens to people when they enter a **space**?

Most of our lives are spent inside buildings. Our thoughts are shaped by their walls, and the way we perceive things is influenced by our surroundings.

Architecture and the interior design may affect a person's health, behavior, mood, decisions, and interactions with others.

The Psychology of Architecture is also referred to as “Psychology of The Built Environment” or “Environmental Psychology”.

The importance of architecture as a trigger to physical, physiological and psychological well-being is nowadays becoming a topic of significant relevance.

Architecture affects human psychology through certain elements such as **color, form, shape, light, space**, etc.  
It is important to consider these elements in order to design comfortable and healthy spaces.

---

2

# History

The founding fathers of Environmental Psychology

---





**Willy Hellpach (1877-1955)**

Hellpach was one of the first scholars who introduced the term 'environmental psychology' in the first half of the 20th century. This term was mentioned in his book "Geopsyche" in 1935. He studied the impact of different environmental stimuli (colour, form, space, nature, etc.) on human activities. He also studied urban phenomena.



**Egon Brunswik (1903-1955)**

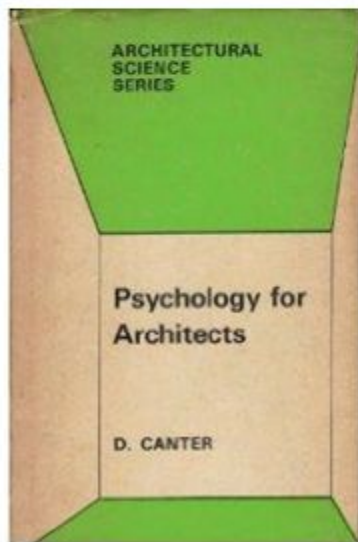
He was one of the first psychologists who argued that psychology should give as much attention to the properties of the organism's environment as it does to the organism itself. He believed that **the physical environment can affect psychological processes subconsciously**. He also strongly advocated research that includes all aspects of the environment of the person being studied.



**Kurt Lewin (1890-1947)**

Lewin, like Brunswik, **conceptualised the environment as a key determinant of behaviour**. He argued that behaviour is a function of the person and the environment. He mostly focused on the social or interpersonal influences instead of the physical environment, but he inspired different students to continue and expand on his ideas.





## Psychology for Architects by David Canter

Published in 1970s, David Canter's book "Psychology for Architects" spawned the whole field of environmental psychology, as it was dedicated to understanding how people interact with the buildings and spaces around them.

The founding fathers before him focused mainly on how the general environment affects psychology, whereas David Canter studied how architecture and spaces play a role on human psychology.

After the publication of his book, psychology of architecture became a science of its own with principles to be followed.

---

3

# Importance

of the built environment on psychological processes

---

• • •

The built environment has direct and indirect effects on human psychology. It has an impact on our senses, mood, emotions, motivations, judgments, decisions, health, and participation in physical activity and community life. Having a good built environment is important because it can give better performance, less distraction, and occupants comfort and satisfaction.

• • •

The preferences of certain physical environments may be neutrally/hormonally underpinned, evolutionarily driven, and/or culturally modulated. Furthermore, individual differences are likely to lead to diverging experiences of the same building or room. To create a built environment is not only providing four blank walls, but to build a space that satisfies physical & psychological needs.

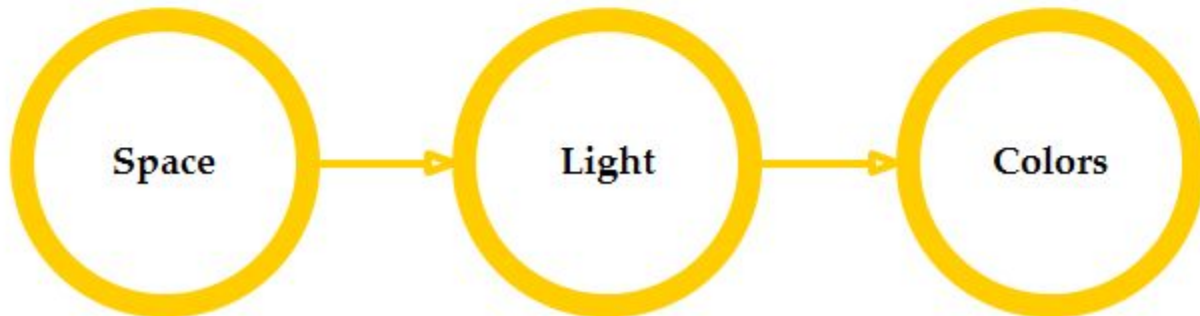
• • •

A space should be flexible enough to be personalized by different occupants, and the best way to achieve this in today's complex environment is through more participation, cooperation and understanding among designers and environmental psychologists.

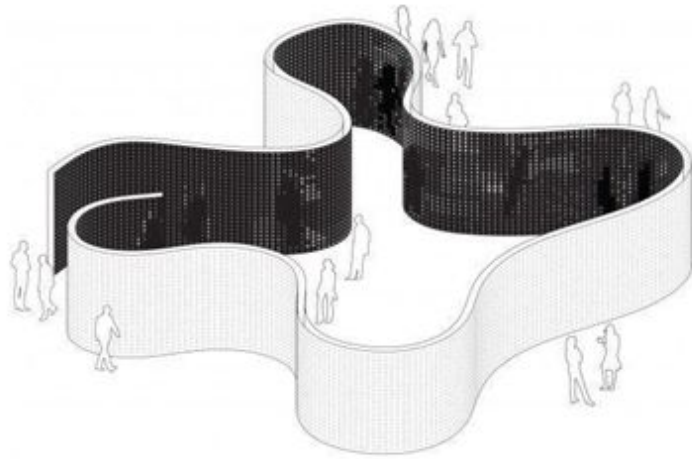
# 4 Psychological effects of Space, light & color

**“We shape our buildings; there after they shape us.” - Winston Churchill**

- ▶ Architecture can control the way people live, the way they think and the way the feel. By defining the function of your space and meeting your users' needs, you design an effective building, for each building should be designed first and foremost around their occupants.
- ▶ How can architecture affect our moods and thoughts?





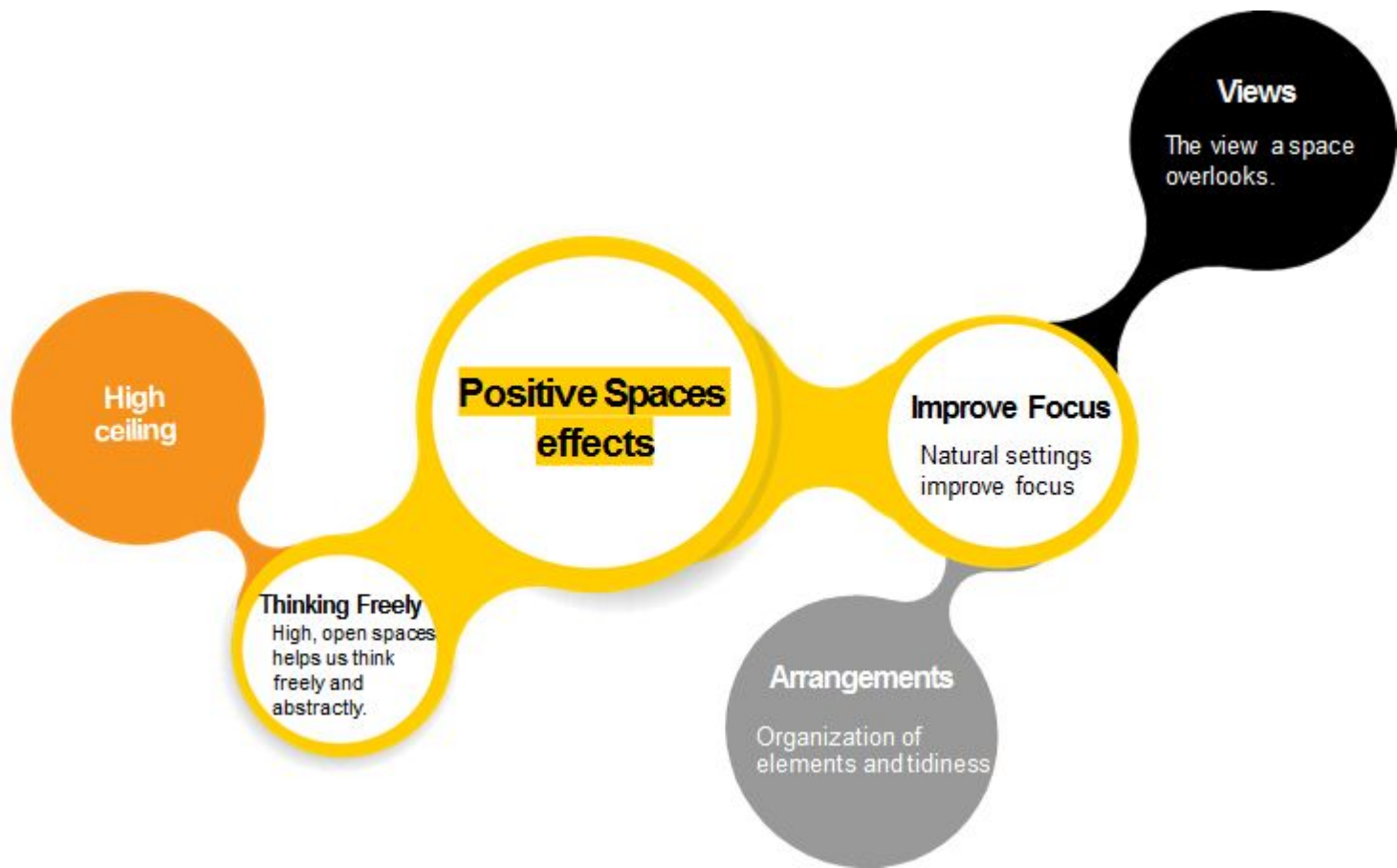


## Space:

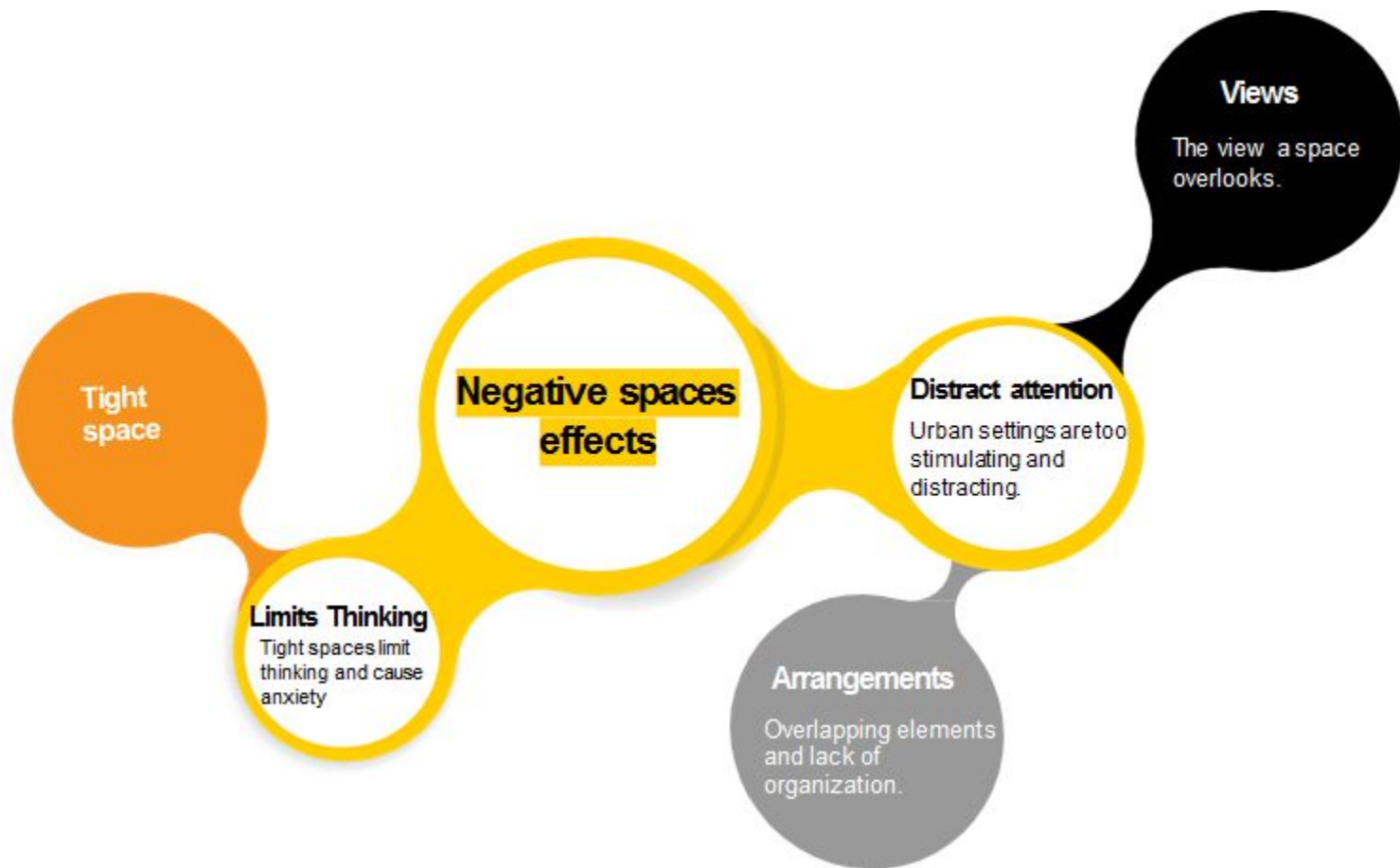
Space control people's movements, creating a flow from element to element, telling people where to look, what to read and what's important. When designing interior spaces, the function of the space, the time people will spend in it, and the mood you want the space to evoke should be taken into consideration. Generally open spaces are more positive and inviting, on the other hand, closed or tight spaces have a more negative impact.

The diagrams in the following slides show the negative and positive impact a space creates psychologically.



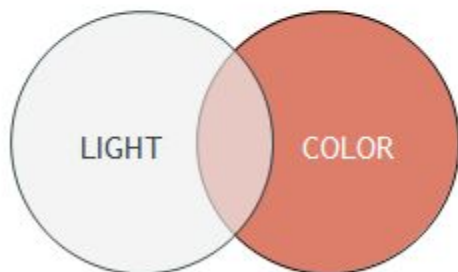
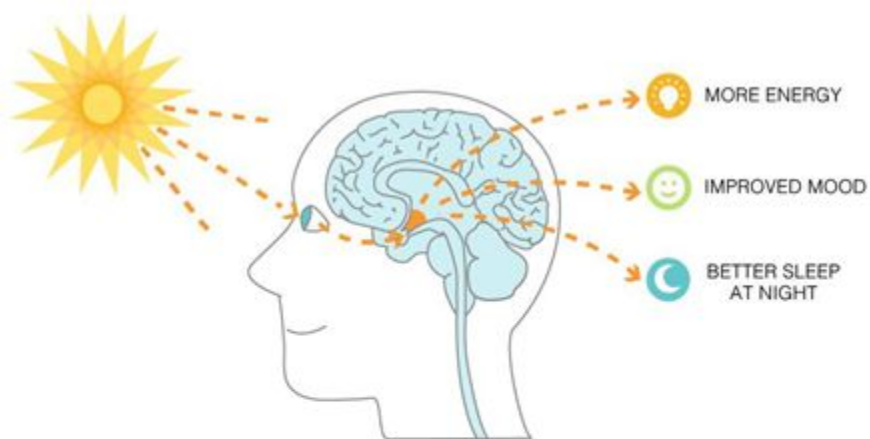








PEOPLE IN HIGH CEILINGED  
ROOMS EXCEL IN SOLVING  
PROBLEM



Always put in mind that light and color are related i.e. if one puts red glass and green glass together in front of an electrical light, it appears black and dark.

## Light:

“Without light we see nothing, without light we are nothing”.

Light offers everything apparent, defines its meaning and proves its existence. Light plays a great role in architecture and our psychological behaviours. This is why designers need to study where they should open more windows and use more light.

Four affected elements are explained in the following slide.

### 1- Our moods.

Natural lighting provides a sense of calmness and peacefulness helping in relaxation and reducing tension, moreover increasing positive energy. That is why most people feel relieved while taking a walk outdoors in the morning. Poor lighting and lack of sun exposure might cause depression and indolence.

### 2- Our productivity and concentration

As functions and places differ, their need of light is different too. In schools and offices, buildings need to be brightly lit to keep our brains stimulated and enhance our performance. On the contrary, libraries tend to use "warmer" lamps to build a more comfortable reading environment. Generally dim lights are used when we are trying to be creative, while bright lights when we are trying to focus.

### 3- Our sleep cycles.

Studies show that exposure to bright light in the late evenings cause a delay to the sleep cycle and lead us to prefer sleeping at later times. Therefore, dim lights in bedrooms should be used for the drowsy effect it creates, preparing you to sleep.

### 4- Our decision making.

The more intense the lighting, the greater is a person's emotions. That is why detectives interrogate suspects under bright, harsh lighting, to get to the truth. When designing a space for a flower shop or engagement ring stores always use bright lights for such spaces are filled with emotions. While when designing for example a court, light should be reduced for there is no place for emotions and it allows us to make more rational decisions and settle negotiations in a better way.





PATIENTS IN ROOM WITH VIEWS OF A TREE OUT OF THEIR WINDOW RECOVER FASTER THAN PATIENTS IN ROOM WITH NO VIEWS OF NATURE.



## Colors:

Colors, similar to other things in the world, create vibrations. Hence, our body organs, skin cells and nerves get affected by them. In addition, Colors not only influence our moods but also change architectural perspectives; making us feel that a space is widened or expanded. Depending on the emotions you want to bring, you choose your color paints. For example, in hospitals the color green is often used, for which it is the most comfortable color to the eye and helps healing mentally. Another example is, restaurants choose colors and designs that either encourage customers to stay and enjoy the evening (dark colors and low lighting) or eat quickly and move on like fast food restaurants (bright colors and hard seats).



PTOOK A TEST IN REDCONDITION  
ROOM DOING MUCH BETTER AT  
SKILL THAT REQUIRED  
ACCURACY AND ATTENTION TO  
DETAIL





**Thanks**

**for your Attention!**