# **IQRA NATIONAL UNIVERSITY**

**DEPORTMENT: CIVIL ENGINEERING** 

PAPER: INTRODUCTION TO ARCHITECTURE AND TOWN PLANNING

**EXAM: MID TERM** 

**SEMESTER: 2ND** 

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**QUASTION:-1** TAKE ANY BUILDING FROM INTERNET, PUT ITS PICTURE IN MICROSOFT WORD AND EXPLAIN ITS POSITIVE AND NEGATIVE POINTS ACCORDING TO THE PRINCIPLES OF DESIGN. WHAT COULD BE DONE TO MAKE THE BUILDING MORE ATTRACTIVE? ANSWER MUST BE AT LEAST 200 WORDS.

#### Answer:-

POSITIVE AND NEGATIVE POINTS ACCORDING TO THE PRINCIPLES OF DESIGN

# **BASIC DESIGN PRINCIPLES**

As already mentioned, there is no real consensus in the design community about what the main principles of design actually are. That said, the following twelve principles are those mentioned most often in articles and books on the subject.



### 1. Contrast

One of the most common complaints designers have about client feedback often revolves around clients who say a design needs to "pop" more. While that sounds like a completely arbitrary term, what the client generally means is that the design needs more contrast.

Contrast refers to how different elements are in a design, particularly adjacent elements. These differences make various elements stand out. Contrast is also a very important aspect of creating accessible designs. Insufficient contrast can make text content in particular very difficult to read, especially for people with visual impairments

#### 2. Balance

Every element of a design—typography, colors, images, shapes, patterns, etc.—carries a visual weight. Some elements are heavy and draw the eye, while other elements are lighter. The way these elements are laid out on a page should create a feeling of balance.

There are two basic types of balance: symmetrical and asymmetrical. Symmetrical designs layout elements of equal weight on either side of an imaginary center line. Asymmetrical balance uses elements of differing weights, often laid out in relation to a line that is not centered within the overall design.

## 3. Emphasis

Emphasis deals with the parts of a design that are meant to stand out. In most cases, this means the most important information the design is meant to convey.

Emphasis can also be used to reduce the impact of certain information. This is most apparent in instances where "fine print" is used for ancillary information in a design. Tiny typography tucked away at the bottom of a page carries much less weight than almost anything else in a design, and is therefore deemphasized.

## 4. Proportion

Proportion is one of the easier design principles to understand. Simply put, it's the size of elements in relation to one another. Proportion signals what's important in a design and what isn't. Larger elements are more important, smaller elements less.

# 5. Hierarchy

Hierarchy is another principle of design that directly relates to how well content can be processed by people using a website. It refers to the importance of elements within a design. The most important elements (or content) should *appear* to be the most important.

Hierarchy is most easily illustrated through the use of titles and headings in a design. The title of a page should be given the most importance, and therefore should be immediately recognizable as the most important element on a page. Headings and subheadings should be formatted in a way that shows their importance in relation to each other as well as in relation to the title and body copy.

## 6. Repetition

Repetition is a great way to reinforce an idea. It's also a great way to unify a design that brings together a lot of different elements. Repetition can be done in a number of ways: via repeating the same colors, typefaces, shapes, or other elements of a design.

This article, for example, uses repetition in the format of the headings. Each design principle is formatted the same as the others in this section, signaling to readers that they're all of equal importance and that they're all related. Consistent headings unify these elements across the page.

## 7. Rhythm

The spaces between repeating elements can cause a sense of rhythm to form, similar to the way the space between notes in a musical composition create a rhythm. There are five basic types of visual rhythm that designers can create: random, regular, alternating, flowing, and progressive.

Random rhythms have no discernable pattern. Regular rhythms follow the same spacing between each element with no variation. Alternating rhythms follow a set pattern that repeats, but there is variation between the actual elements (such as a 1-2-3-1-2-3 pattern). Flowing rhythms follow bends and curves, similar to the way sand dunes undulate or waves flow. Progressive rhythms change as they go along, with each change adding to the previous iterations.

Rhythms can be used to create a number of feelings. They can create excitement (particularly flowing and progressive rhythms) or create reassurance and consistency. It all depends on the way they are implemented.

### 8. Pattern

Patterns are nothing more than a repetition of multiple design elements working together. Wallpaper patterns are the most ubiquitous example of patterns that virtually everyone is familiar with.

In design, however, patterns can also refer to set standards for how certain elements are designed. For example, top navigation is a design pattern that the majority of internet users have interacted with.

## 9. White Space

White space—also referred to as "negative space"— is the areas of a design that do not include any design elements. The space is, effectively, empty.

Many beginning designers feel the need to pack every pixel with some type of "design" and overlook the value of white space. But white space serves many important purposes in a design, foremost being giving elements of the design room to *breathe*. Negative space can also help highlight specific content or specific parts of a design.

It can also make elements of a design easier to discern. This is why typography is more legible when upper and lowercase letters are used since negative space is more varied around lowercase letters, which allows people to interpret them more quickly.

In some cases, negative space is used to create secondary images that may not be immediately apparent to the viewer. This can be a valuable part of branding that

can delight customers. Take the hidden arrow in the FedEx logo, for just one example.

## 10. Movement

Movement refers to the way the eye travels over a design. The most important element should lead to the next most important and so on. This is done through positioning (the eye naturally falls on certain areas of a design first), emphasis, and other design elements already mentioned.

## 11. Variety

Variety in design is used to create visual interest. Without variety, a design can very quickly become monotonous, causing the user to lose interest. Variety can be created in a variety of ways, through color, typography, images, shapes, and virtually any other design element.

However, variety for the sake of variety is pointless. Variety should reinforce the other elements of a design and be used alongside them to create a more interesting and aesthetically pleasing outcome that improves the user's experience.

## 12. Unity

Everyone has seen a website or other design out there that seemed to just throw elements on a page with no regard for how they worked together. Newspaper ads that use ten different fonts come to mind almost immediately.

Unity refers to how well the elements of a design work together. Visual elements should have clear relationships with each other in a design. Unity also helps ensure concepts are being communicated in a clear, cohesive fashion. Designs with good unity also appear to be more organized and of higher quality and authority than designs with poor unity.

# Other Principles of Design

Other principles of design are also touched upon in various articles on the subject. These include typography, color, Gestalt Principles, grid and alignment, framing, and shape. Some definitely fit the definition of "principles" while others are more like elements of design.

Typography refers to the way text is arranged in a design. That includes the fonts used, their spacing, size, and weight, and the way different text elements relate to each other. Good typographic design is heavily influenced by all of the other design principles mentioned earlier in this article.

The use of color in design is one of the most psychologically important parts of a design and has a huge influence on user experience. Color psychology and theory heavily influences some of the other principles mentioned earlier.

Gestalt Principles include similarity, continuation, closure, proximity, figure/ground, and symmetry & order (also called prägnanz). Some of those principles are closely related to the principles mentioned above.

Grid and alignment are closely related to balance and refer to the way elements are arranged in relation to an invisible grid on the page.

Framing refers to how the primary subject of a design is placed in relation to other elements on the page. It's most often heard referred to in cinematography or

photography, with how the main focus of an image is placed within the overall image. But the principle carries over into design.

Shape is also a major part of any design, both in terms of specific shapes used as elements within the design, and the overall shape of the design itself. Different shapes can evoke different feelings, i.e circles are organic and fluid, while squares are more rigid and formal, and triangles give a sense of energy or movement.

These design "principles" or elements are important aspects of good design and should be considered alongside the other basic principles to create the best user experiences.

## Conclusion

What constitutes the "basic" principles of design is certainly up for debate. But understanding and implementing the principles covered above is vital to the success of any design project.

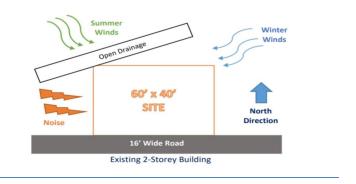
Designers should aim to understand how each of these design principles actually impact their work. Studying how other designers have implemented these ideas to structure their own designs is also an incredibly valuable tool in learning to create better designs.

It's entirely possible to create a good design without a thorough understanding of these elements and principles of design. However, it's typically done by "designer's intuition" and may take a lot of trial and error in order to create something that actually looks good and creates an optimal user experience. Designers could save a lot of time and energy by practicing the principles we have discussed until they become second-nature.



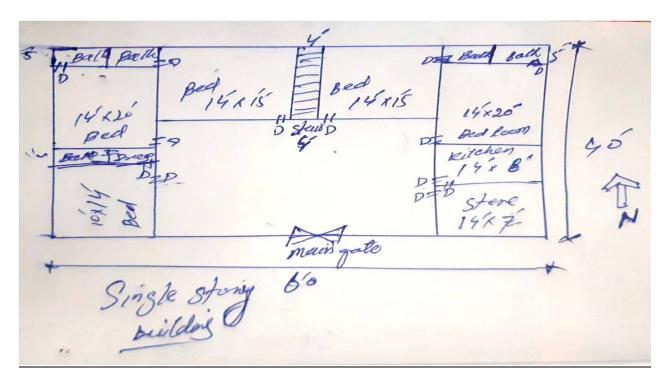
QUASTION:-2 DESIGN AND SKETCH AN IDEAL SINGLE STOREY HOUSE ON THE SITE SHOWN BELOW.

THE DESIGN SHOULD BE FREE HAND AND CAN BE DRAWN ON GRAPH PAPER. IF A GRAPH PAPER IS NOT
AVAILABLE THEN MAKE A GRID OF 5'X5' ON A SEPARATE WHITE A4 SIZE PAPER. THE HOUSE SHOULD BE
NATURALLY VENTILATED AND HAVE NATURAL LIGHTING. ALSO, IT SHOULD BE FREE OF NOISE. THE SITE IS
LOCATED IN PESHAWAR. LABEL OR EXPLAIN THE PLAN NEATLY.



#### **Answer:-**

#### FREE HAND SKITCH SINGLE STORY BUILDING



### **QUASTION:-3**

SELECT A SITE AT THE PLACE WHERE YOU LIVE. DO MICRO SITE ANALYSIS OF SITE AND MAKE ITS SKETCH ON ANOTHER A4 PAPER AND WRITE ABOUT IT IN DETAIL. YOU CAN TAKE YOUR OWN LAWN AS A SITE FOR ANALYSIS OR ANY OTHER SITE IN THE NEIGHBORHOOD. ADDITIONALLY, MAKE A SOLAR PATH DIAGRAM FOR YOUR AREA ON A SEPARATE PIECE OF PAPER TO FIND THE EXACT SUN ANGLES FOR BOTH WINTER AND SUMMER. WATCH VIDEOS ON YOUTUBE TO UNDERSTAND AND MAKE SOLAR PATH DIAGRAM. USE THESE SUN ANGLES TO MAKE A ROUGH SKETCH OF A ROOM. SHOW WINDOW HEIGHT, TYPE OF FIXED SUN SHADE USED, ANGLE AND HEIGHT OF SHADE AS WELL AS ITS DEPTH AND WIDTH BY KEEPING SUN ANGLES IN MIND. THE PURPOSE FOR THE SKETCH IS TO SHOW HOW WINTER SUN IS ALLOWED AND SUMMER SUN IS BLOCKED.

#### Answer:-

#### **SOLAR PATH DIAGRAM**

My house is located on south side and my solar is showin on diagram which below angle.

