

# Design Ideas and Infographic Presentation in Architecture

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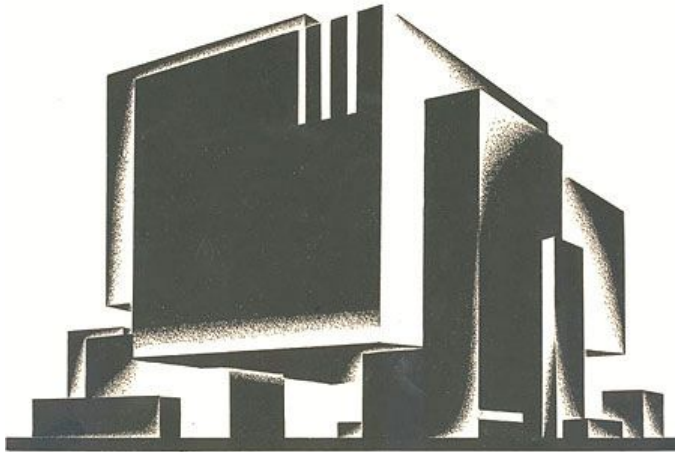


# What is graphics?

Visualisation

Creating images, diagrams, drawings in order to:

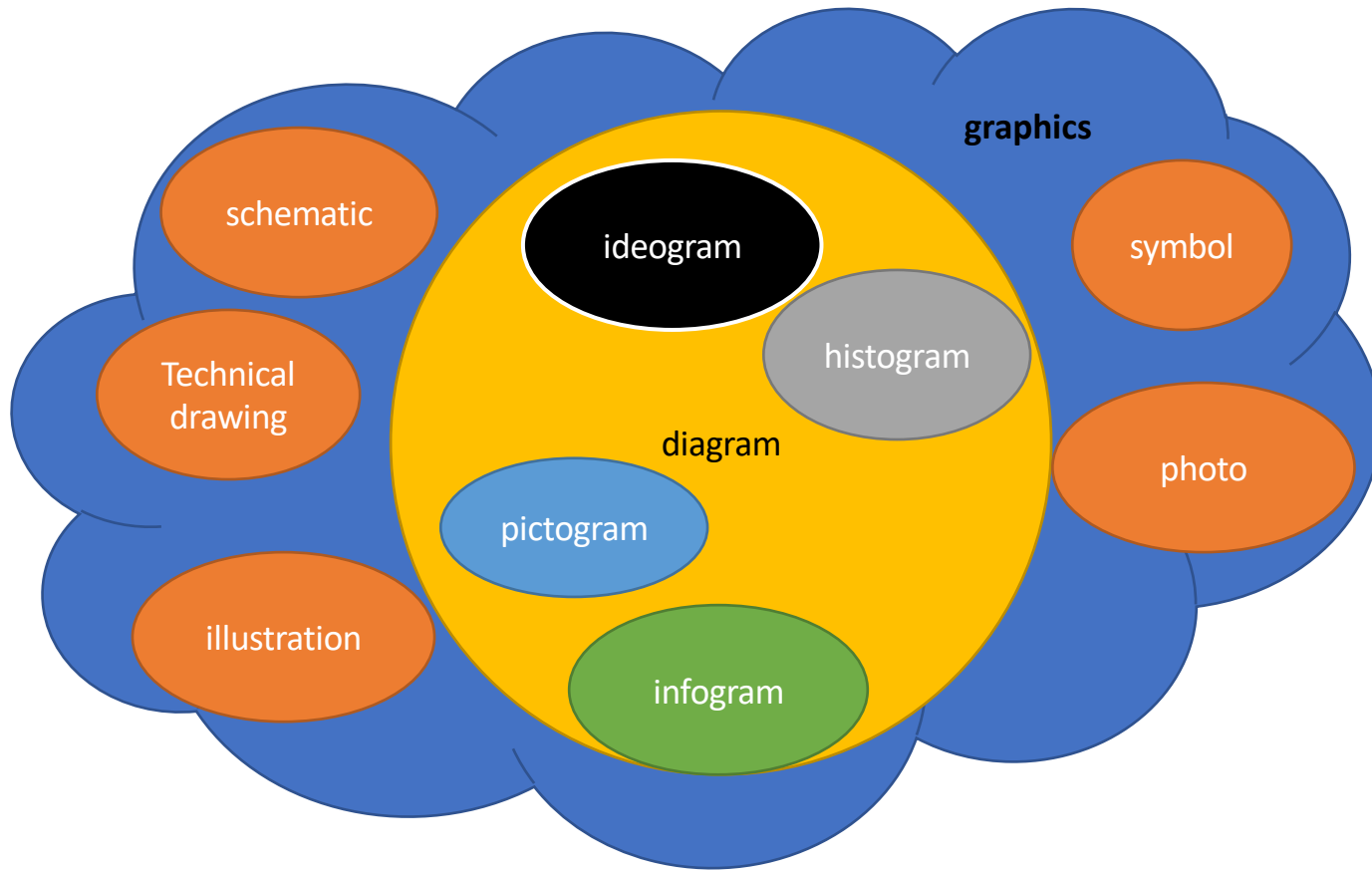
**communicate both abstract and concrete ideas**



Iakov Chermikov

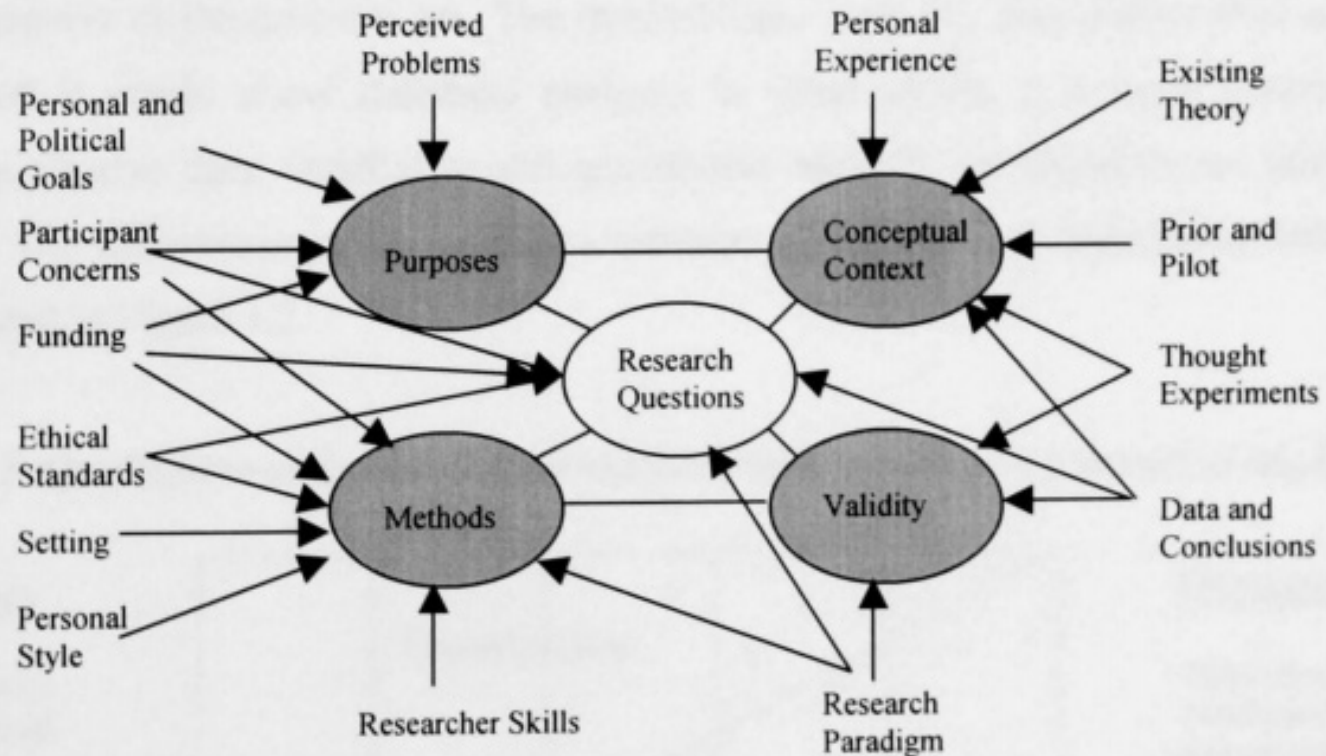


# Concepts





**Figure 1. 1 Contextual factors influencing a research design (adopted from Maxwell, 1996, p. 7)**



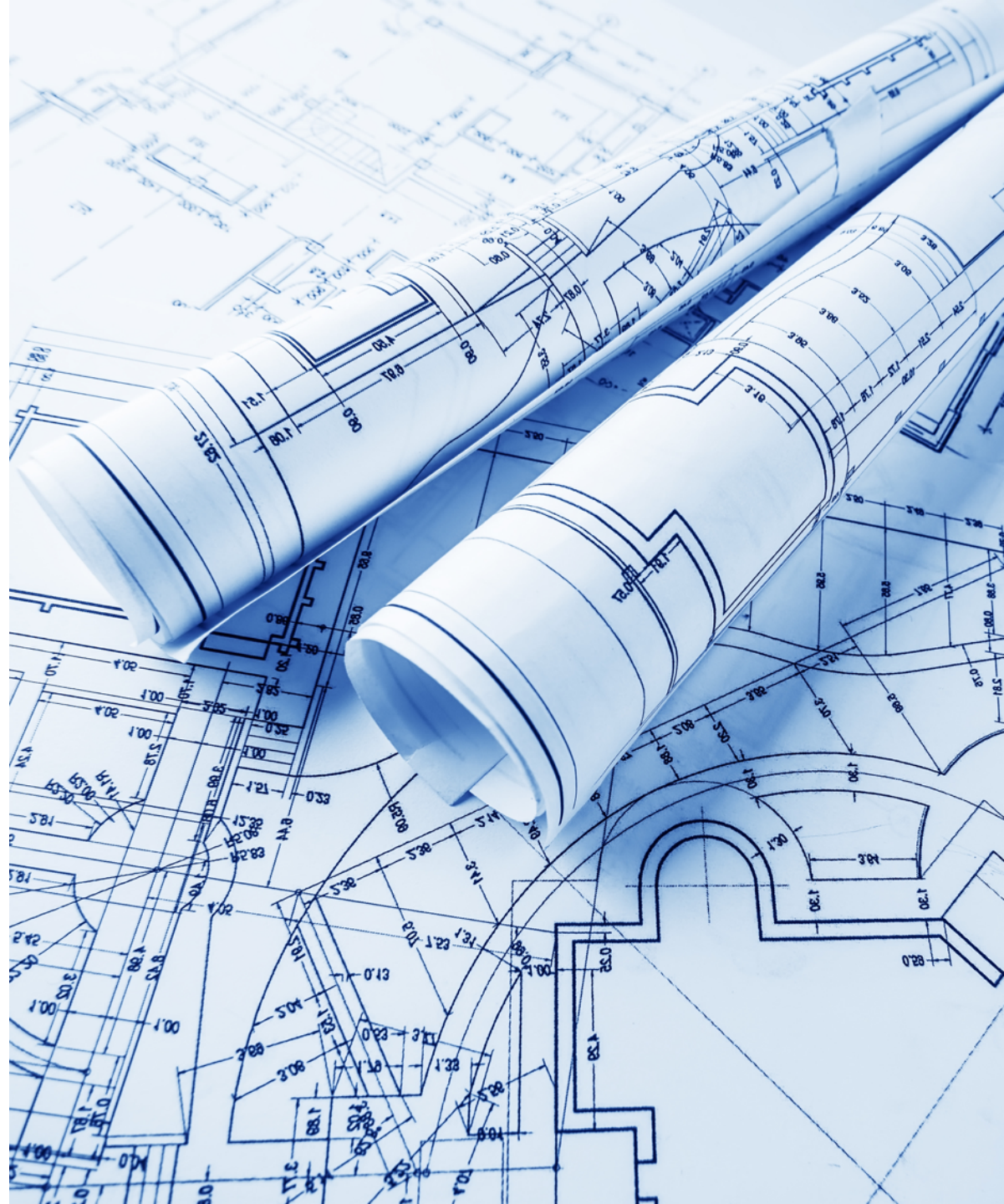
A schematic,

is a representation of the elements of a system using abstract, graphic symbols rather than realistic pictures.



# Technical drawing,

is the act and discipline of composing drawing that visually communicate how something functions or is constructed.





# An illustration

Is a visual representation that stresses subject more than form. The aim of an illustration is to elucidate or decorate a story, poem or piece of textual information



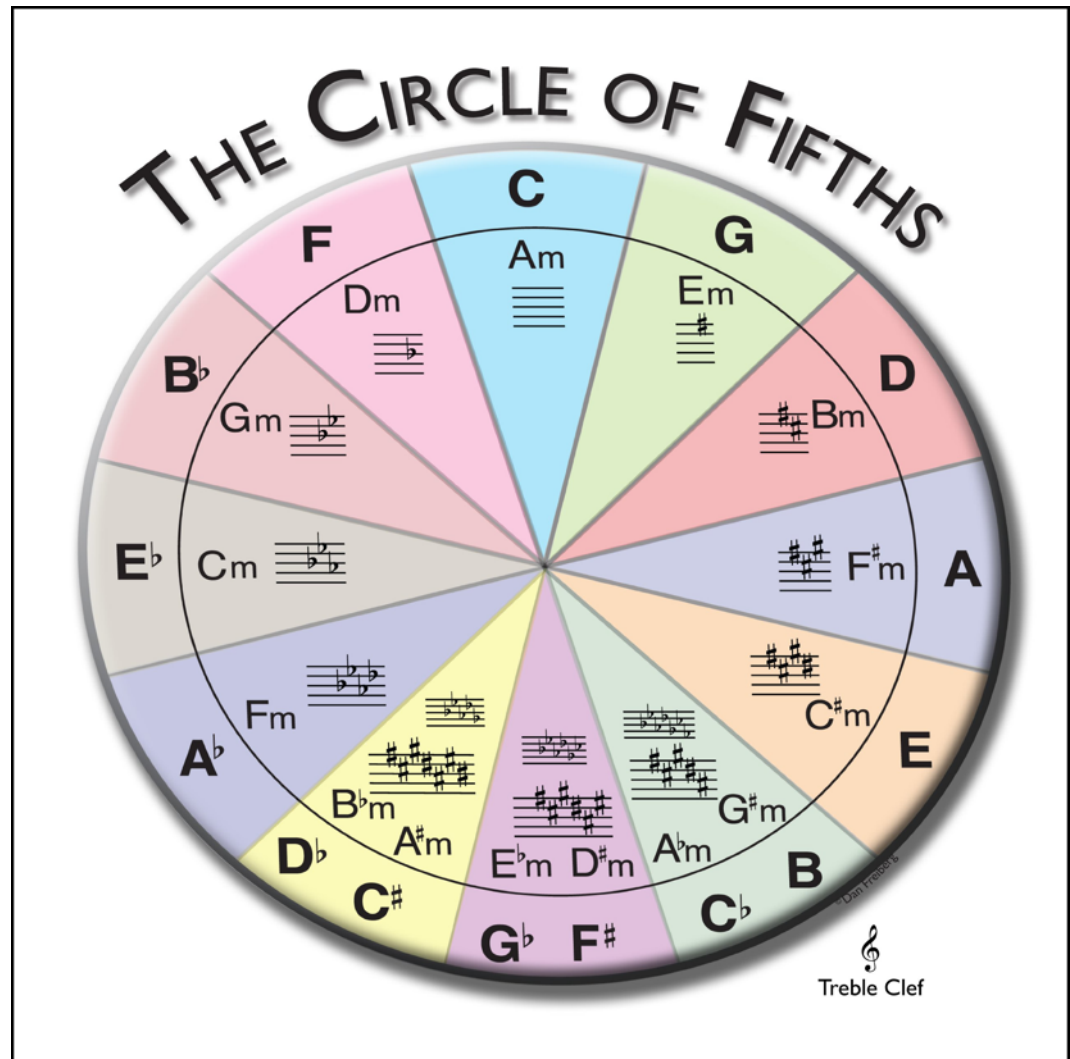
# A symbol

- is a mark, sign, or word that indicates, signifies, or is understood as representing an idea, object, or relationship.



# A diagram

- is a simplified and structured visual representation of concepts, ideas, constructions, relations, statistical data, etc., used to visualize and clarify the topic.







# SUCCESSFUL PEOPLE



# UNSUCCESSFUL PEOPLE





# A BRIEF HISTORY OF SITTING FASHIONABLY

Your guide to perching and parking in style through the ages.

## In the beginning...

### THE EARLIEST CHAIRS

The first chairs were rudimentary affairs. Benches, stools and chests were the most common seating arrangements. Design wasn't a key consideration - rather, each table or the chair was influenced by the time and environment. Without chairs, the floor or bed was used.

**THE VERDICT**  
Style: Functional  
Comfort: Not great  
Construction: Simple



The end. Thank you

## A BRIEF HISTORY OF EYEGLASSES

**54-68AD** FIRST WRITTEN RECORD  
The first written record of eyeglasses is found in the 1st century AD, in the Roman Empire. The word 'eyeglasses' is derived from the Latin word 'oculus', meaning 'eye'.

**1286** INVENTION OF EYEGLASSES  
The first eyeglasses are made in Pisa, Italy. They were made of wood and had a simple design.

**1300** "EYEGLASSES"  
A word for eyeglasses is used for the first time.

**1352** CAUGHT ON CANVAS  
The portrait of a man wearing eyeglasses is painted by Jan van Eyck in 1432. The painting shows a man with a large nose and a small mouth, wearing a pair of eyeglasses.

**1403** GLASSES APPLIQUE  
The first eyeglasses with a frame are made in France. They were made of wood and had a simple design.

**1600** A PORTRAIT OF FRANCISCO  
A portrait of a man wearing eyeglasses is painted by Jan van Eyck in 1432. The painting shows a man with a large nose and a small mouth, wearing a pair of eyeglasses.

**1604** JOHANNES KEPLER  
Johannes Kepler, a German astronomer, published his theory of vision in 1604. He proposed that light rays from an object enter the eye and are focused on the retina by the lens.

**1727** OVER THE EAR  
The first eyeglasses with a temple are made in France. They were made of wood and had a simple design.

**1797** FOUR LENS SPECS  
The first eyeglasses with four lenses are made in France. They were made of wood and had a simple design.

**1825** ASTIGMATISM  
The first eyeglasses for astigmatism are made in France. They were made of wood and had a simple design.

**1830** MONOCLES  
The first monocles are made in France. They were made of wood and had a simple design.

**1914** WORK BY THE MASSES  
The first mass-produced eyeglasses are made in France. They were made of wood and had a simple design.

**1929** FIRST MASS PRODUCED SUNGLASSES  
The first mass-produced sunglasses are made in France. They were made of wood and had a simple design.

**1936** POLARIZED SUNGLASSES  
The first polarized sunglasses are made in France. They were made of wood and had a simple design.

**1950** 3D GLASSES  
The first 3D glasses are made in France. They were made of wood and had a simple design.

**1953** VARIOFOCAL LENSES  
The first varifocal lenses are made in France. They were made of wood and had a simple design.

**1960** REACTOLITE  
The first Reactolite lenses are made in France. They were made of wood and had a simple design.

**2004** MP3 GLASSES  
The first MP3 glasses are made in France. They were made of wood and had a simple design.

**2014** GOOGLE GLASS  
The first Google Glass are made in France. They were made of wood and had a simple design.

# OSCAR DRESSES

EVERY DRESS WORN BY BEST ACTRESS ACADEMY AWARD WINNERS

1929 JANE GARYON "The Last Days of Pompeii"	1930 MARY PICKFORD "The Love Parade"	1931 MARIE DRESSLER "The Sign of the Cross"	1932 HELEN HAYES "The Sign of the Cross"	1936 BETTE DAVIS "The Sign of the Cross"	1937 LUISE RAINER "The Sign of the Cross"	1938 LUISE RAINER "The Sign of the Cross"	1939 BETTE DAVIS "The Sign of the Cross"
1940 VIVIAN LEIGH "Gone with the Wind"	1941 GINGER ROGERS "Kitty Foyle"	1942 JOAN FONTAINE "The Sign of the Cross"	1943 GREER GARSON "The Sign of the Cross"	1944 JENNIFER JONES "The Sign of the Cross"	1945 INGRID BERGMAN "The Sign of the Cross"	1947 OLIVIA DE HAVILLAND "The Sign of the Cross"	1948 LORETTA YOUNG "The Sign of the Cross"
1949 JANE WYMAN "The Sign of the Cross"	1950 OLIVIA DE HAVILLAND "The Sign of the Cross"	1953 SHIRLEY BOOTH "The Sign of the Cross"	1954 AUDREY HEPBURN "The Sign of the Cross"	1955 GRACE KELLY "The Sign of the Cross"	1958 JOANNE WOODWARD "The Sign of the Cross"	1959 SUSAN HAYWARD "The Sign of the Cross"	1960 SOPHIE MARSH "The Sign of the Cross"
1961 ELIZABETH TAYLOR "The Sign of the Cross"	1965 JULIE ANDREWS "The Sign of the Cross"	1966 JULIE CHRISTIE "The Sign of the Cross"	1969 BARBARA STEISAND "The Sign of the Cross"	1972 JANE FONDA "The Sign of the Cross"	1973 LEA MINNELLI "The Sign of the Cross"	1976 LOUISE FLETCHER "The Sign of the Cross"	1977 FAYE DUNAWAY "The Sign of the Cross"
1978 DIANE KEATON "The Sign of the Cross"	1979 JANE FONDA "The Sign of the Cross"	1980 SALLY FIELD "The Sign of the Cross"	1981 SUSAN SARGENT "The Sign of the Cross"	1983 MERYL STREEP "The Sign of the Cross"	1984 SHIRLEY MALEINE "The Sign of the Cross"	1985 SALLY FIELD "The Sign of the Cross"	1986 GERALDINE PAGE "The Sign of the Cross"
1987 MARLEE MATLIN "The Sign of the Cross"	1988 CHER "The Sign of the Cross"	1989 JODIE FOSTER "The Sign of the Cross"	1990 JESSICA TANDY "The Sign of the Cross"	1991 KATHY BATES "The Sign of the Cross"	1992 JODIE FOSTER "The Sign of the Cross"	1993 EMMA THOMPSON "The Sign of the Cross"	1994 HOLLY HUNTER "The Sign of the Cross"
1995 JESSICA LANGE "The Sign of the Cross"	1996 SUSAN SARGENT "The Sign of the Cross"	1997 FRANCES MCCORMACK "The Sign of the Cross"	1998 HELEN HUNT "The Sign of the Cross"	1999 GWYNETH PALTROW "The Sign of the Cross"	2000 HILARY SWANK "The Sign of the Cross"	2001 JULIA ROBERTS "The Sign of the Cross"	2002 HALLE BERRY "The Sign of the Cross"
2003 NICOLE KIDMAN "The Sign of the Cross"	2004 CHARLIZE THERON "The Sign of the Cross"	2005 HILARY SWANK "The Sign of the Cross"	2006 REESE WITHERSPOON "The Sign of the Cross"	2007 HELEN MIRREN "The Sign of the Cross"	2008 MARION COTILLARD "The Sign of the Cross"	2009 KATE WINSLET "The Sign of the Cross"	2010 SANDRA BULLOCK "The Sign of the Cross"
2011 NATALIE PORTMAN "The Sign of the Cross"	2012 MERYL STREEP "The Sign of the Cross"	2013 JENNIFER LAWRENCE "The Sign of the Cross"	ACTRESSES WHO DIDN'T ATTEND TO ACCEPT THEIR AWARDS:				
1934 - KATHARINE HEPBURN	1935 - CLAUDETTE COLBERT	1936 - KATHARINE HEPBURN	1937 - KATHARINE HEPBURN	1938 - KATHARINE HEPBURN	1939 - KATHARINE HEPBURN	1940 - KATHARINE HEPBURN	1941 - KATHARINE HEPBURN
1942 - KATHARINE HEPBURN	1943 - KATHARINE HEPBURN	1944 - KATHARINE HEPBURN	1945 - KATHARINE HEPBURN	1946 - KATHARINE HEPBURN	1947 - KATHARINE HEPBURN	1948 - KATHARINE HEPBURN	1949 - KATHARINE HEPBURN

## A BRIEF HISTORY OF 3D PRINTING

3D printing is a process of creating three-dimensional objects from a digital file. It is a form of additive manufacturing, where material is added layer by layer to build an object.

**1981** THE BIRTH OF 3D PRINTING  
The first 3D printer was invented by Charles Hull. It was a desktop-sized machine that could print small objects.

**1986** HOW 3D PRINTING WORKS  
The process of 3D printing involves creating a digital file of an object, which is then printed layer by layer. The layers are added on top of each other to build the object.

**1990s** THE BUILDING PARTS  
The first 3D printed parts were used in the automotive industry. They were used to create prototypes of car parts.

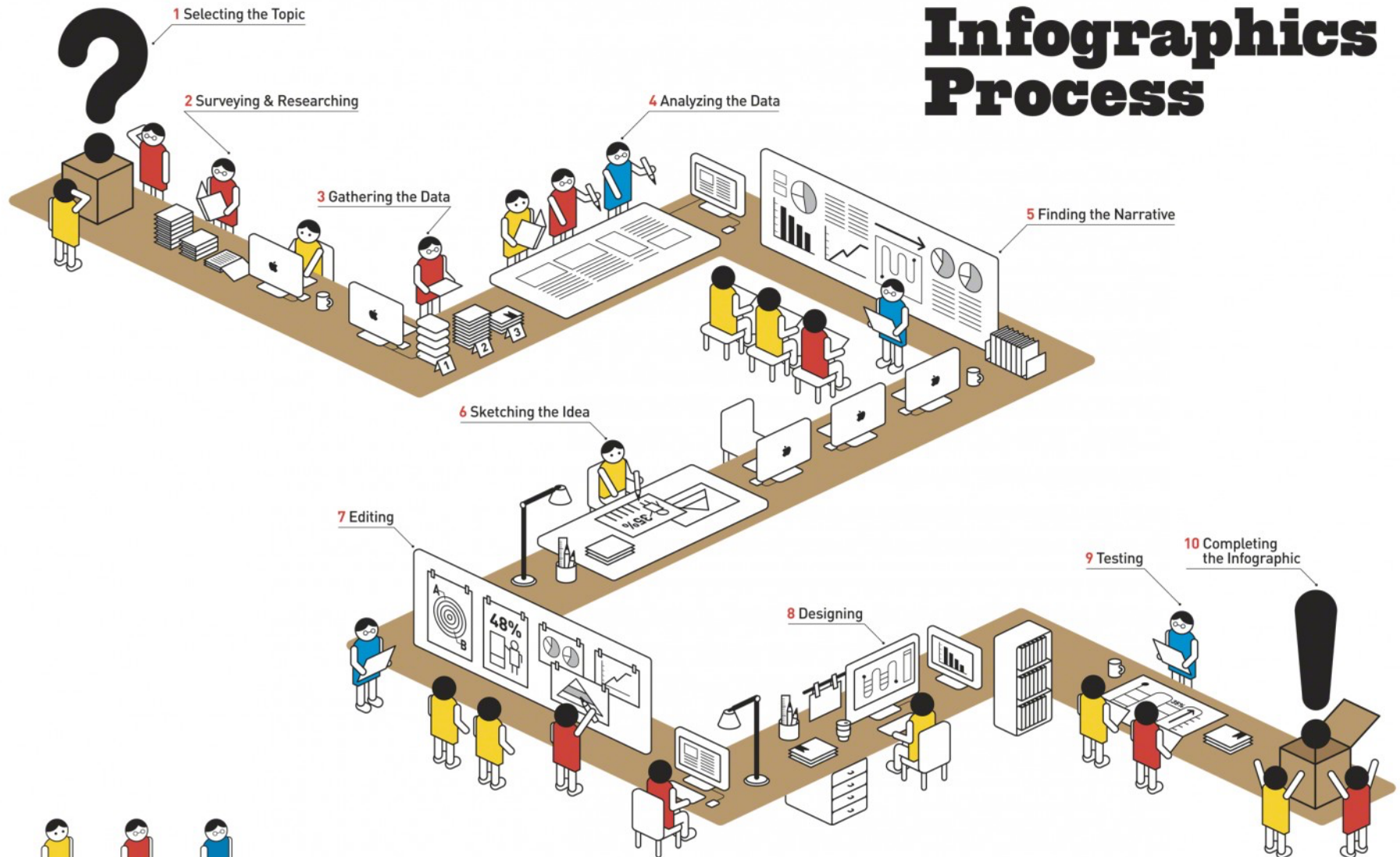
**2000s** ENGINEERED ORGANS  
The first 3D printed organ was a heart. It was created by a team of scientists and engineers.

**2008** THE FIRST SELF-REPLICATING PRINTER  
The first self-replicating printer was invented by a team of scientists and engineers. It was able to print its own parts.

**2010s** THE FIRST 3D-PRINTED PROSTHETIC  
The first 3D-printed prosthetic was a hand. It was created by a team of scientists and engineers.

**2014** THE FIRST 3D-PRINTED PROSTHETIC  
The first 3D-printed prosthetic was a hand. It was created by a team of scientists and engineers.

# Infographics Process



Designer  
Editor  
Data Analyst



## Andrews Chaplin's classification

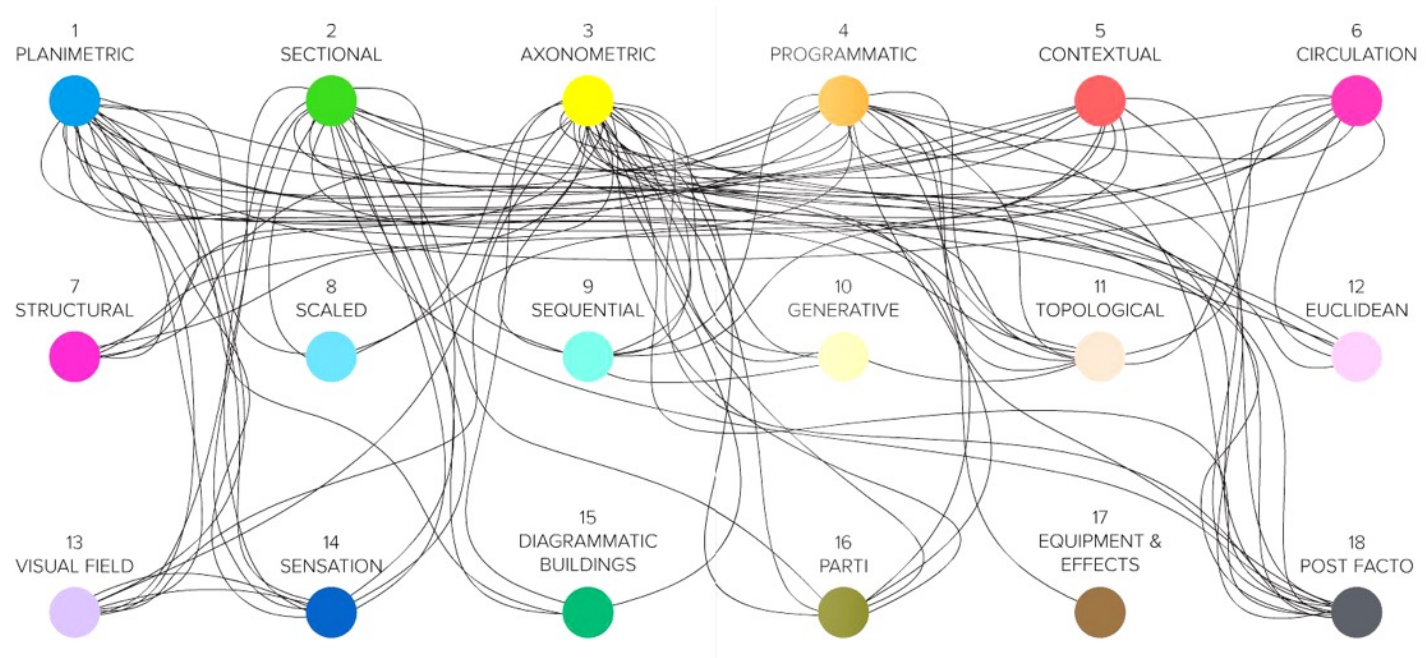
# Architectural Diagrams

There are many types of diagrams.

Many other professions (music, math, business, etc) use diagrams to explain and clarify their visual thinking.

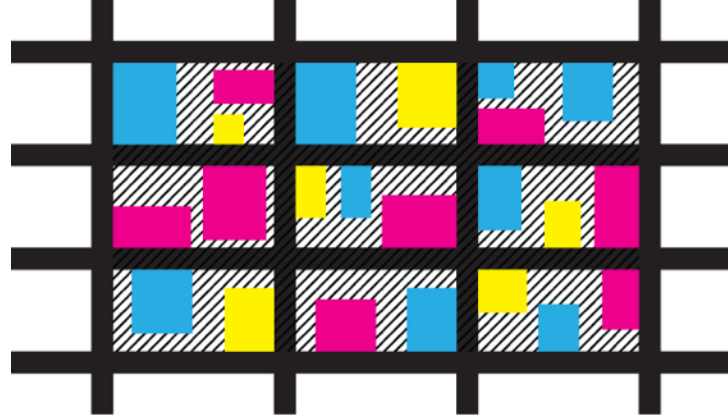
Diagrams focus on general information. They encourage the designer to explore alternatives.

- Planimetric
- Sectional
- Axonometric
- Programmatic
- Contextual
- Circulation
- Structural
- Scaled
- Sequential
- Generative
- Topological
- Euclidean
- Visual Field
- Sensation
- Diagrammatic Buildings
- Parti
- Equipment and Effects
- Post Facto



# Planimetric diagrams

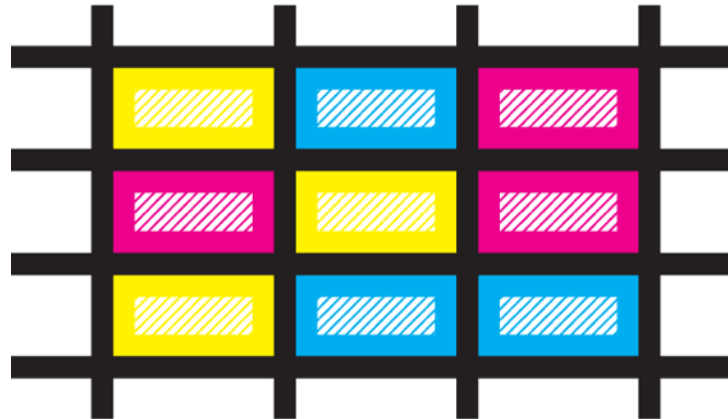
Planimetric diagrams represent concepts and spatial elements. They often relate the architectural form with program, spatial composition and layout.



## EXISTING CONTEXT

Heterogeneous blocks

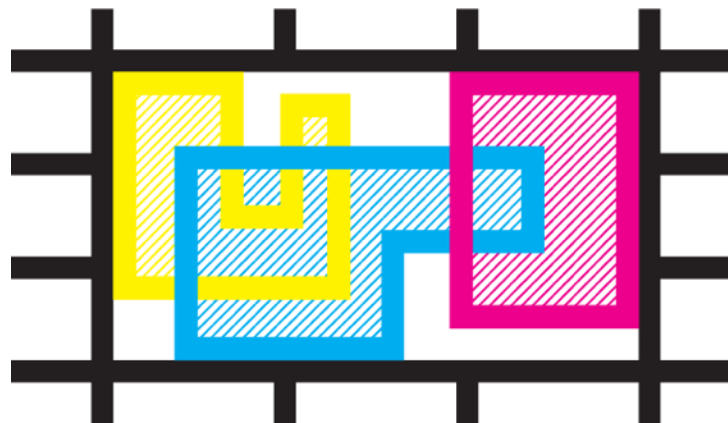
Homogeneous residual public space



## PERIMETER BLOCKS

Homogeneous blocks

Heterogeneous semi-public spaces



## PERIMETERS BLOCK

Heterogeneous block

Heterogeneous public and semi-public

# sectional diagrams

Sectional diagrams relate to architectural and spatial concepts using a vertical plane cut through an object to show the interiority and verticality of a design.

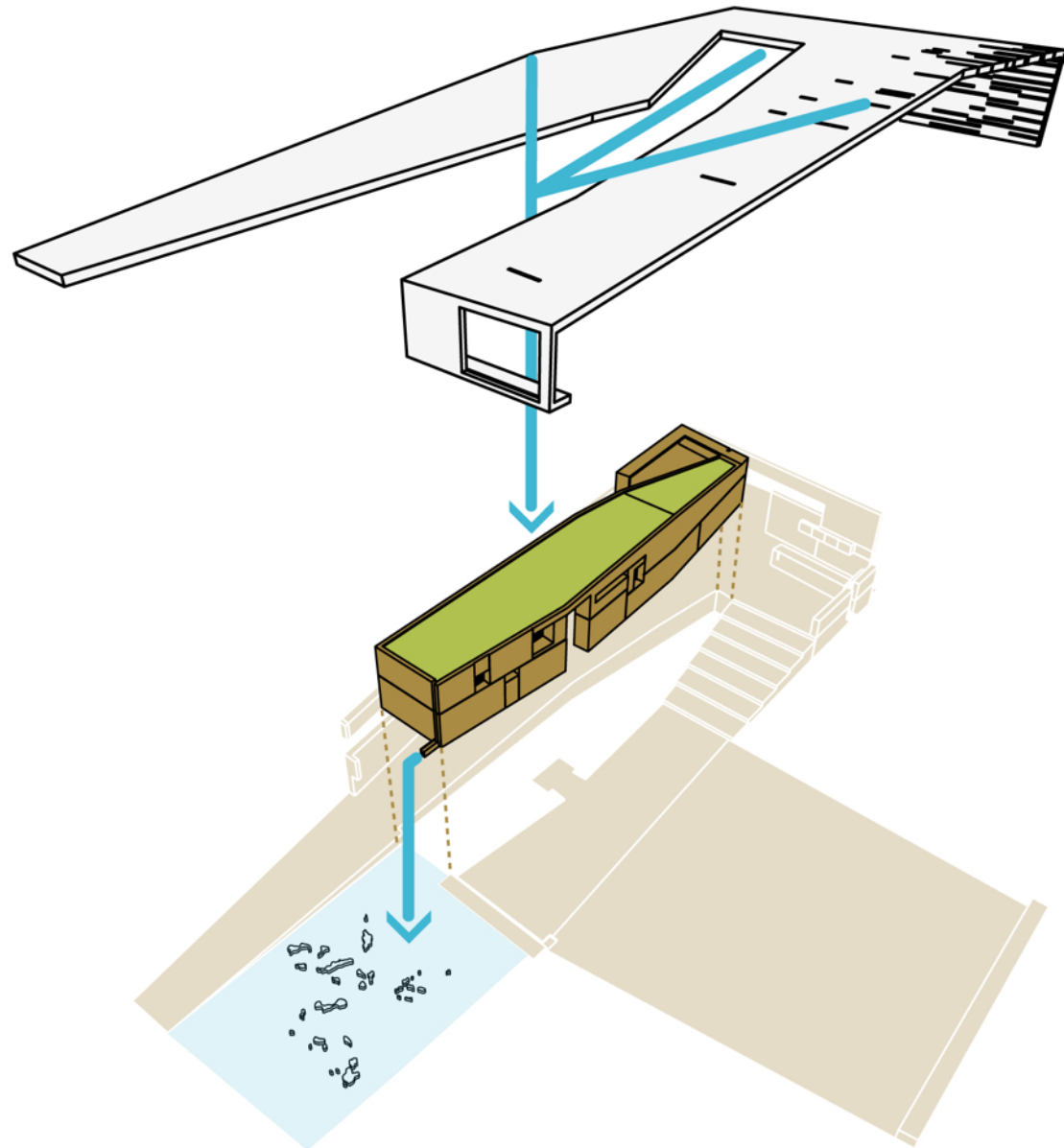
These diagrams often relate architectural form with program, invisible phenomenon such as light and wind, and relate elements to the human scale.





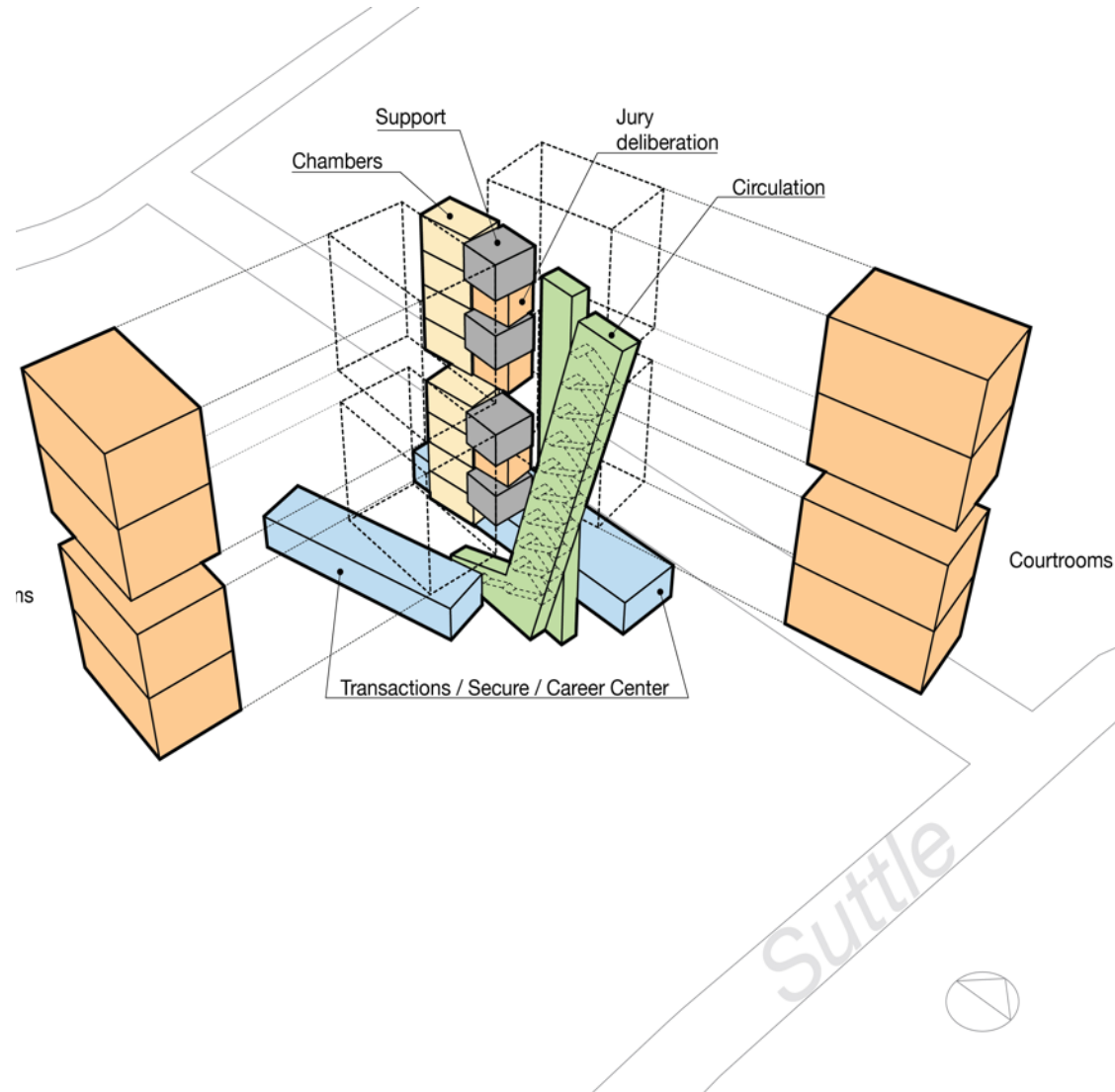
# Axonometric diagrams

Axonometric diagrams relate to architectural or spatial concepts as seen from an exterior viewpoints in parallel projection. These diagrams are often used as descriptive tools to illustrate a design concept as a whole, whether it is an exploded view of individual elements or as a unified body representing the intended final outcome, although they can also be used as part of a sequence in a design process.



# Programmatic diagrams

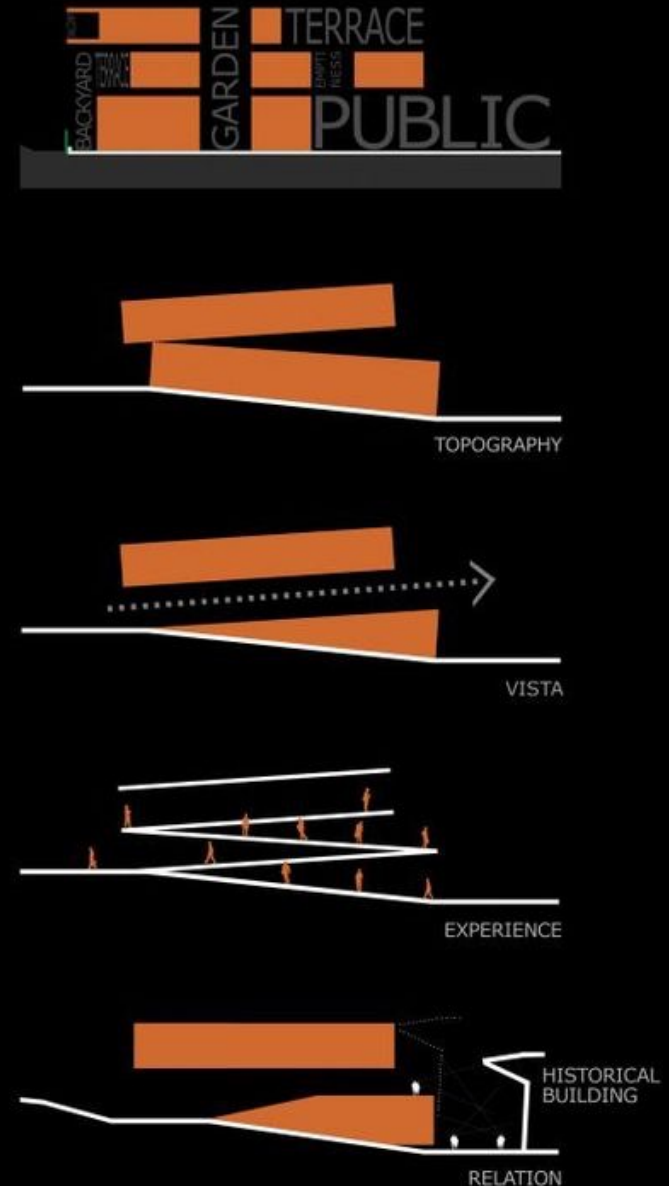
Programmatic diagrams relate to the layout of a building in terms of program and use, and are rarely used to visualize how program relate to the building form. These diagrams are usually Planimetric, sectional and axonometric diagrams, and relate the building form to the intended function of each area.





# Contextual diagrams

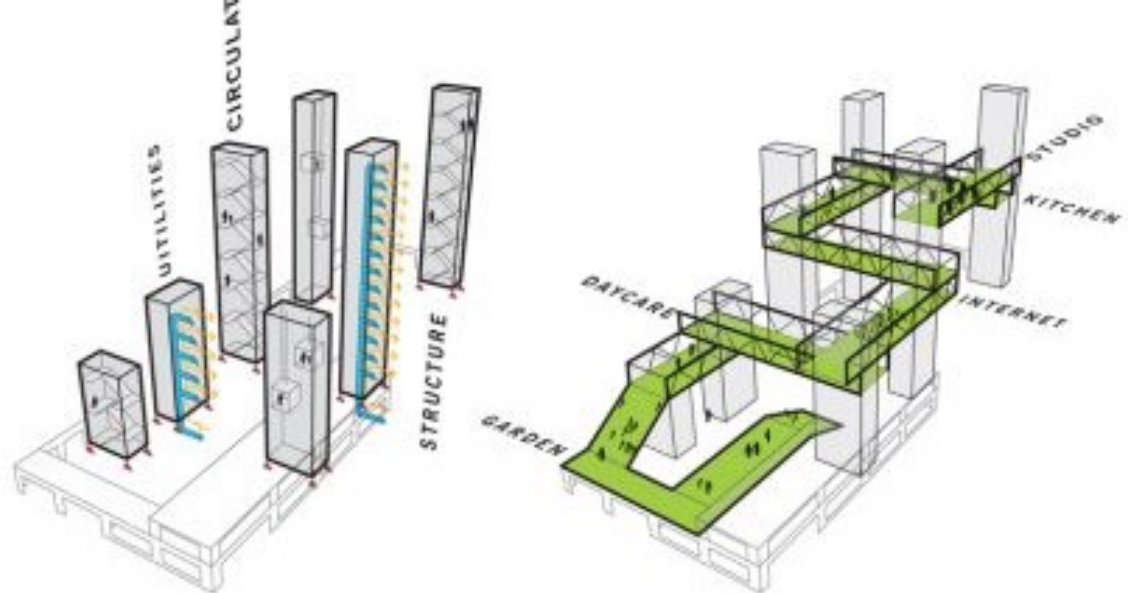
Contextual diagrams relate a design concept to larger contextual aspects beyond itself. These diagrams frequently represent abstract notions, and so often contain less fine detail than other type of diagrams. Contextual diagrams range in scale from immediate surroundings to global conditions and activities.





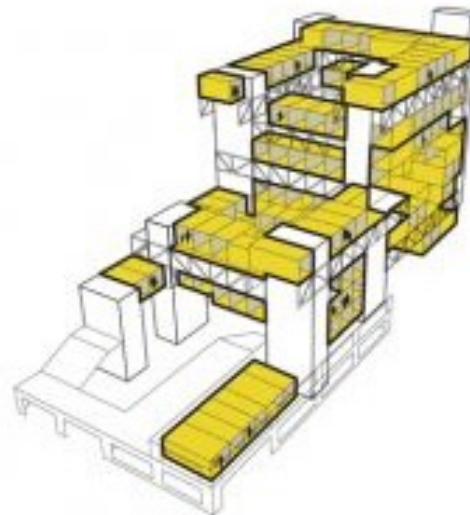
# Circulation diagrams

Circulation diagrams relate building form to the circulation aspects of a design concept. Circulation often included as an aspect in programmatic diagrams, though can often be represented in a more detailed manner when presented in diagrams focusing purely on circulation.

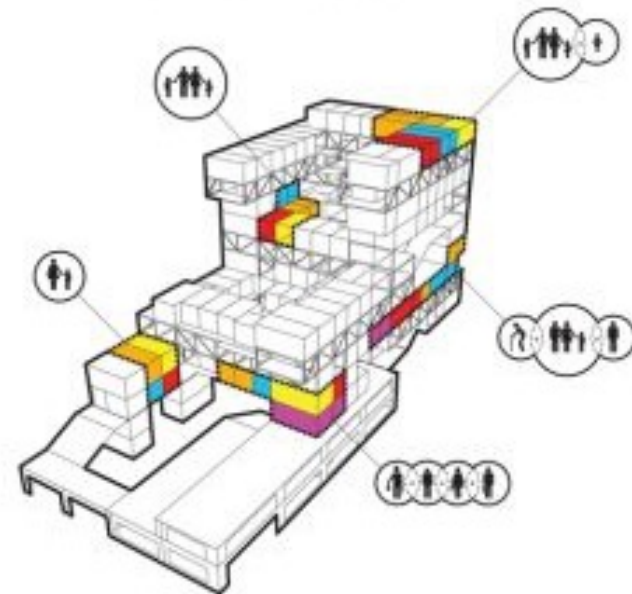


CONCRETE CORES

NETWORK OF  
COMMUNITY SPACES



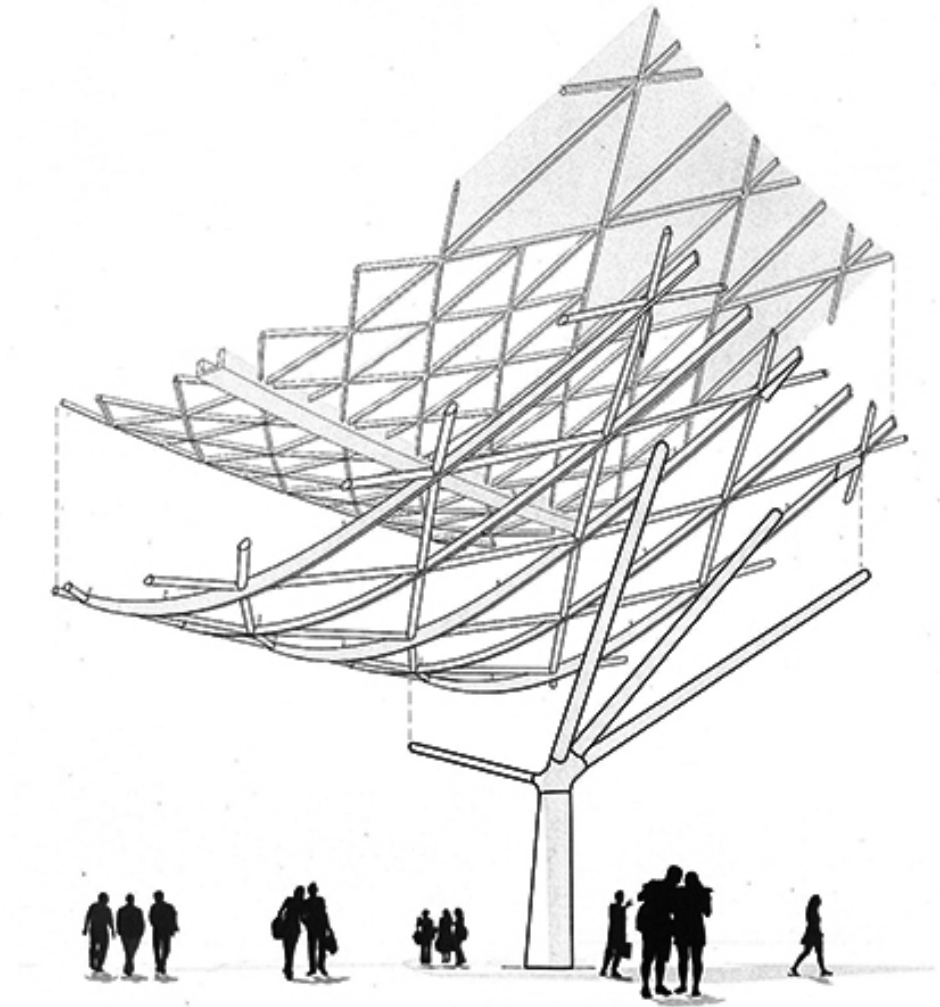
LIVE-AND-WORK UNITS



VERTICAL  
NEIGHBORHOODS

# Structural diagrams

Structural diagrams relate building form to structural aspects of a design concept. Usually this is a Planimetric, sectional or axonometric diagram of the structural elements of a building illustrated in relation to the overall building form. Sometimes these diagrams also describes invisible phenomenon such as compression and tension through use of scale and color range.



# Sequential diagrams

- Diagrams pertaining to a derivative sequence in a design process describe a sequence of steps in a design process. This is often presented as an equation of sorts, or as a numbered process ranging from two or more steps. These diagrams often make use of a background or setting that remains constant throughout the process, only changing one or two variables so as to be able to communicate the process more clearly.

