

Archilecture #1

Figure and ground theory

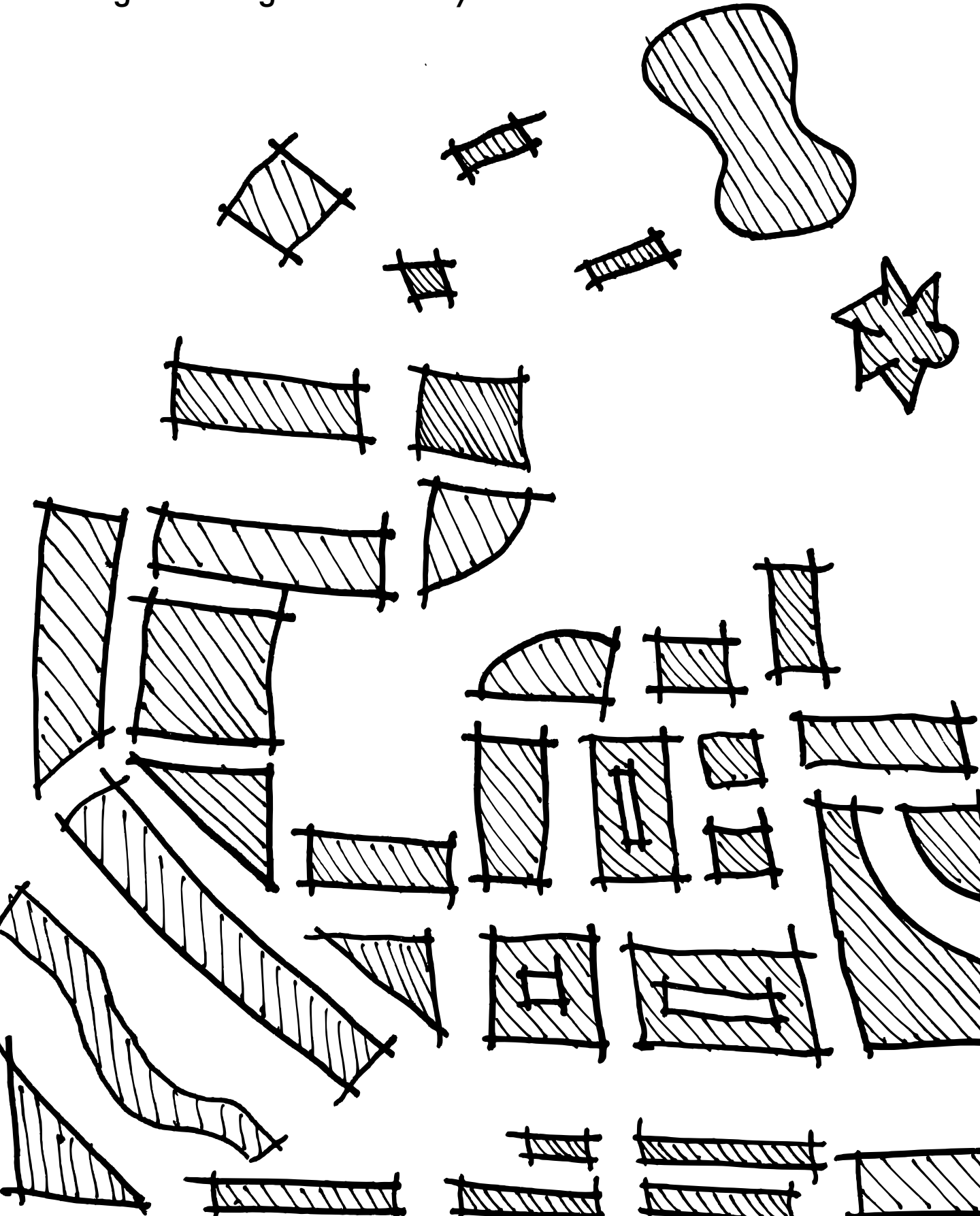


Figure & ground

In two dimensional world, we see figures and ground. Figures are shapes placed on a background. Ground is the space around them.

Figure

Also can be called form, element, object or shape.

Figure in architecture is a solid, thing that is physically present in space. Buildings, walls, furniture.

Ground

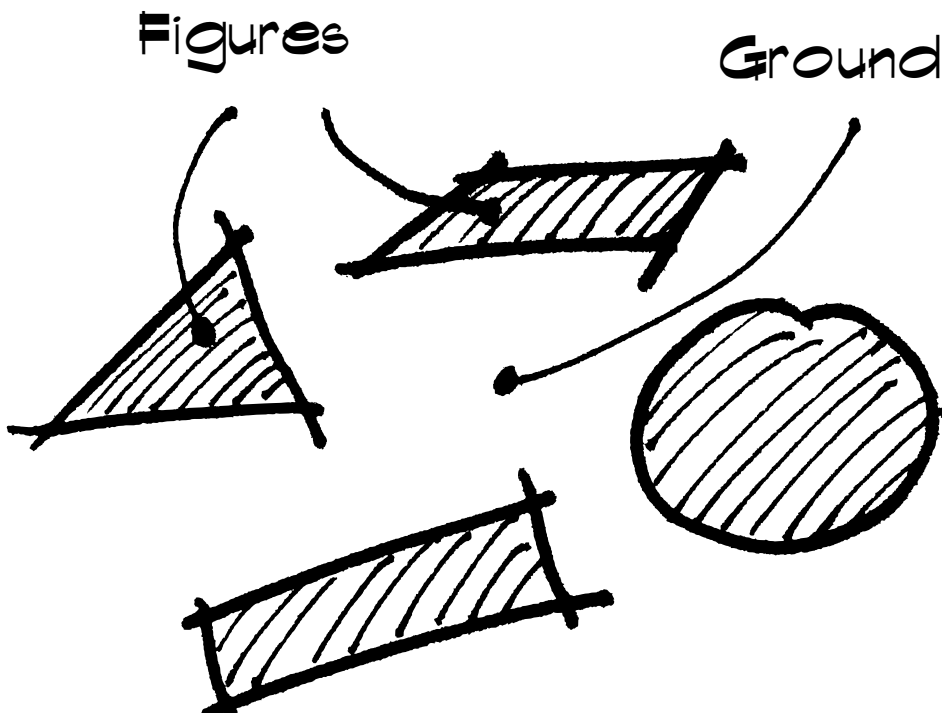
Ground might be also called space or field.

Ground is space around figures. Gaps between buildings, streets and plazas, gardens, air, free space.

Together, they create a composition.

Relationship between figures and ground is useful to show how buildings or other components relate to space around them or contained inside them.

In architecture we can use it at an urban scale to perceive relationship between buildings in the city and spaces around them. But it can also be used at site plans, or even for drawing pieces of furniture to a room.

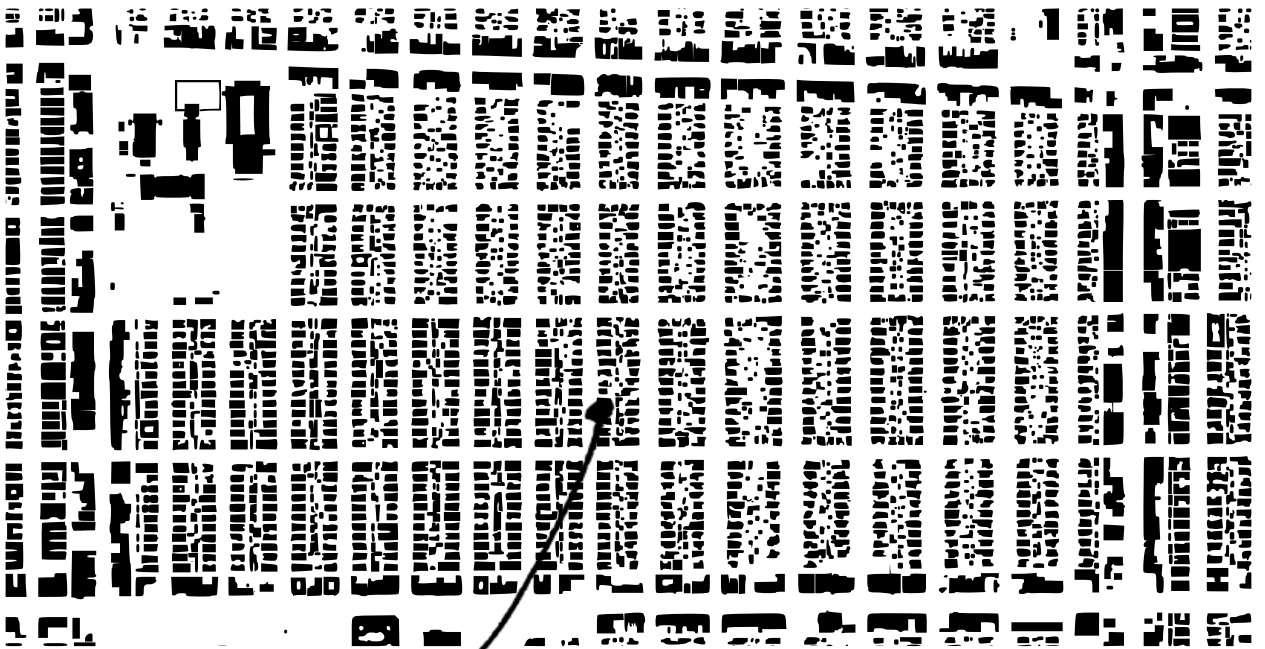


Use

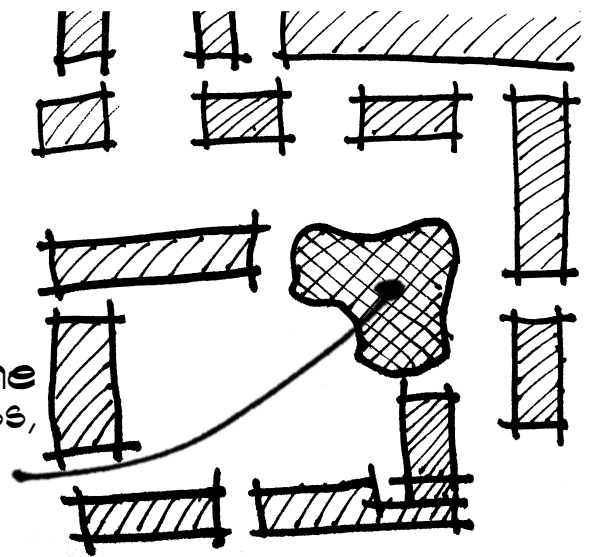
We can use figure-ground drawing to reveal the continuity of open space or examine the framework that is applied (street grid, squares and plazas, solid walls in building, furniture in room).

What are the edges between figure and ground? Edges can be sharp or blunt, straight or jagged, soft or harsh.

Does the proposed building fits well into its surrounding? We can see the relationship of the building mass, proportions and edge connections to neighbourhood.



Street grid - Hollywood, LA



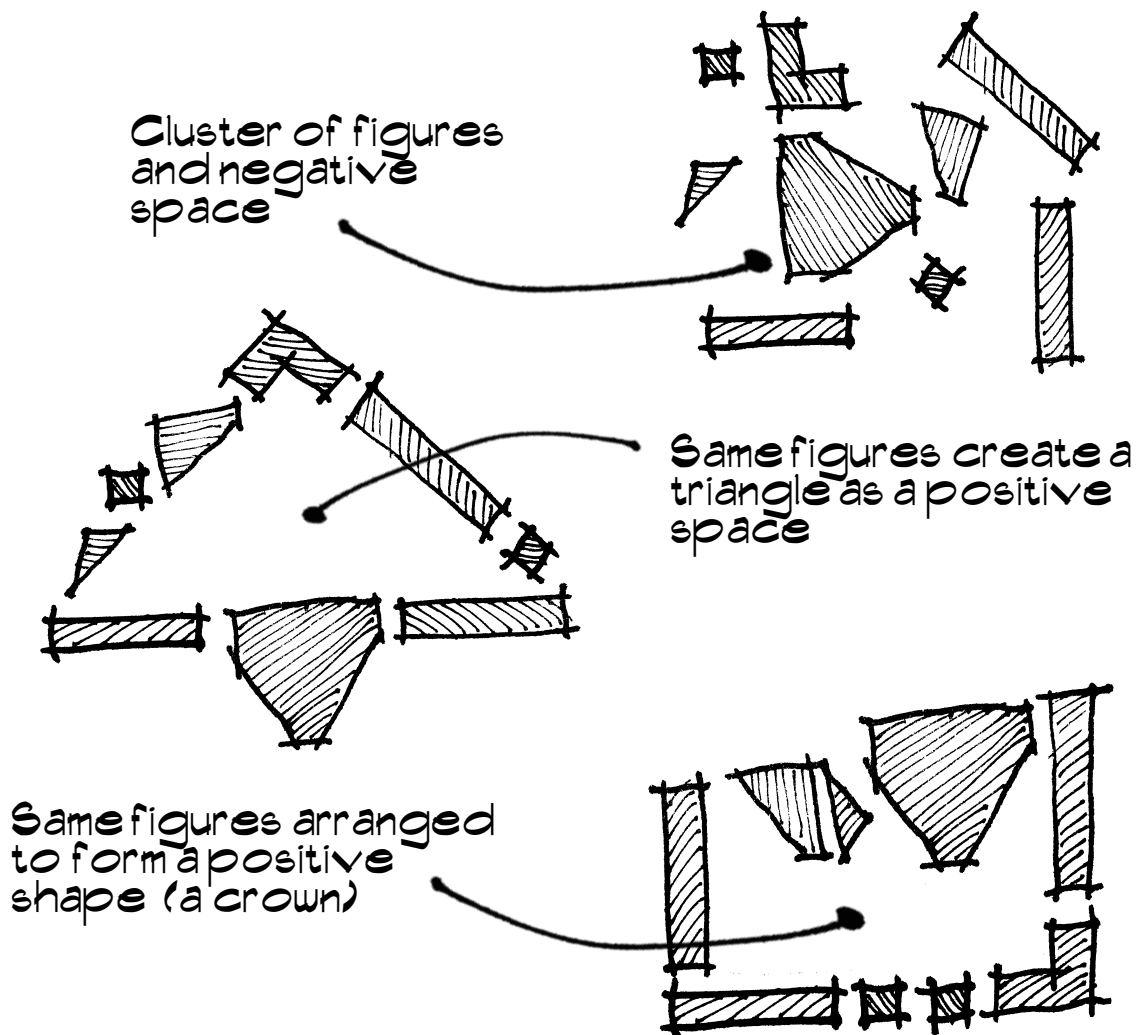
Does this building fit into the neighbourhood? Think about mass, proportions and connections.

Positive and negative space

Gestalt is a German word for shape or form. Gestalt psychology deals with perception of a world, which appears to be chaotic. According to this philosophy our consciousness tries to perceive the global whole with organizing tendencies. Our mind subconsciously connects missing parts of the composition.

We must carefully observe not just the figure, but also the space they create.

If the space is not organised, we talk about negative space. If it has its own shape, it is positive space.

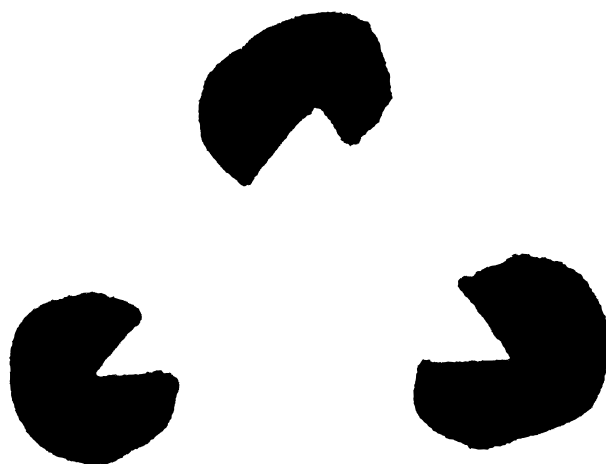


Implied shapes

Gestalt psychology tells us that we perceive a shape, even though it is incomplete.

We can see them even though, they are not real.

These shapes are implied. Opposite would be explicit.



Implied triangle
(actually circles with cut outs)



Implied fish
(actually rectangles with cutouts)

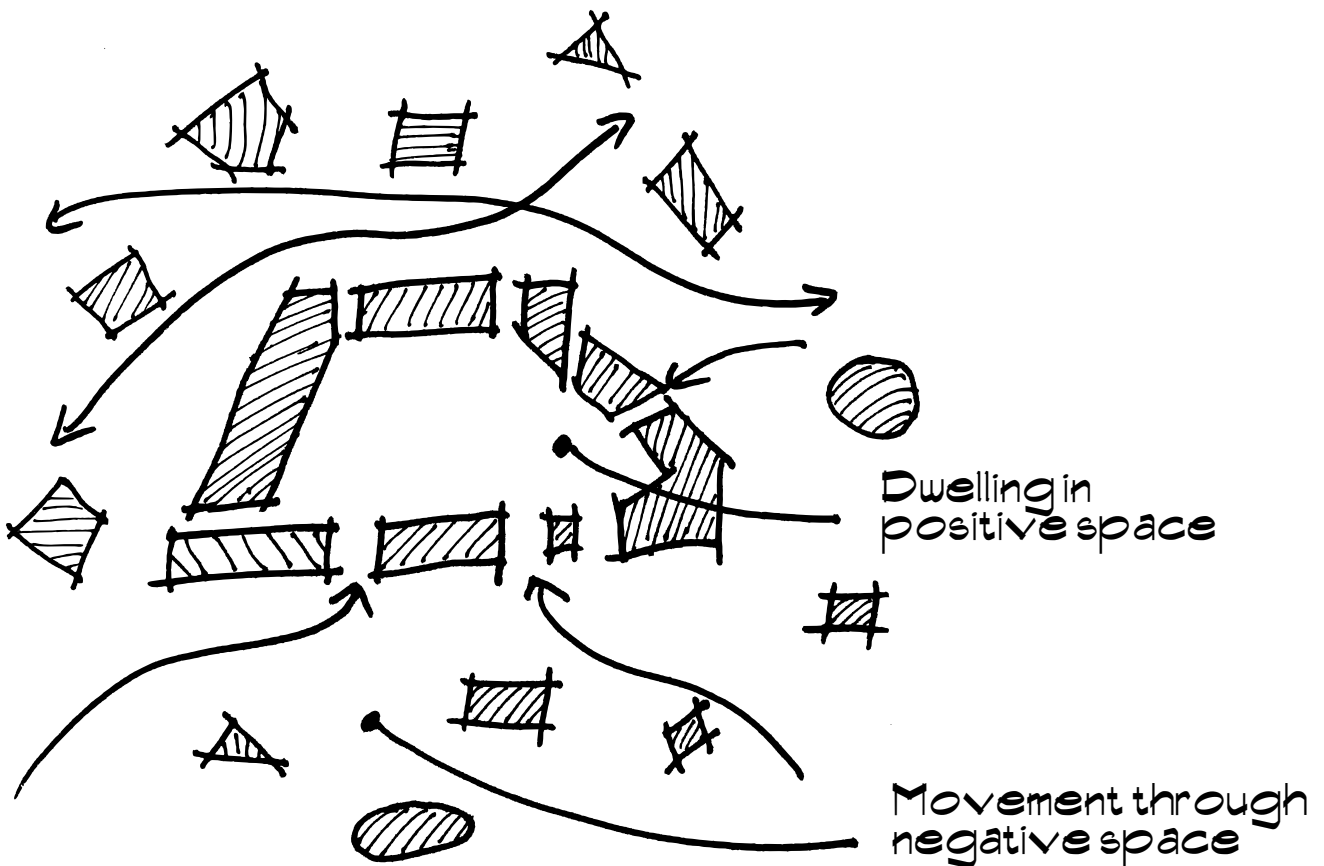
Dwelling and moving

Humans sense the quality of space around them. We live in space between the solids.

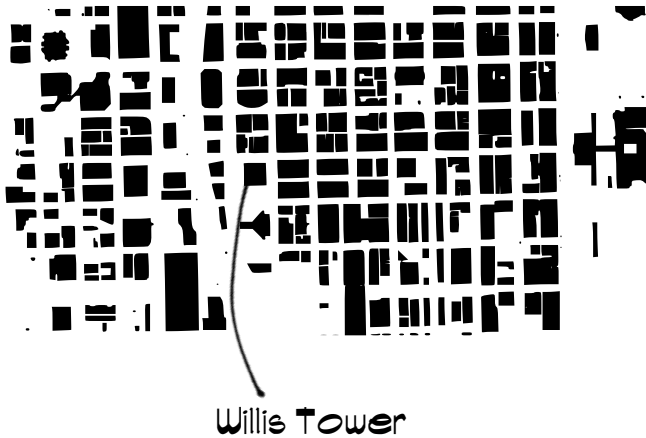
Negative space reminds us of wilderness, forests and mountains. We move through those spaces but we are not staying in them.

Positive space is rare in nature. It reminds us of caves, where we were protected. Positive space is usually man-made. It promotes meeting and interaction.

We dwell in positive spaces and we move through negative spaces.



Schwarzplan

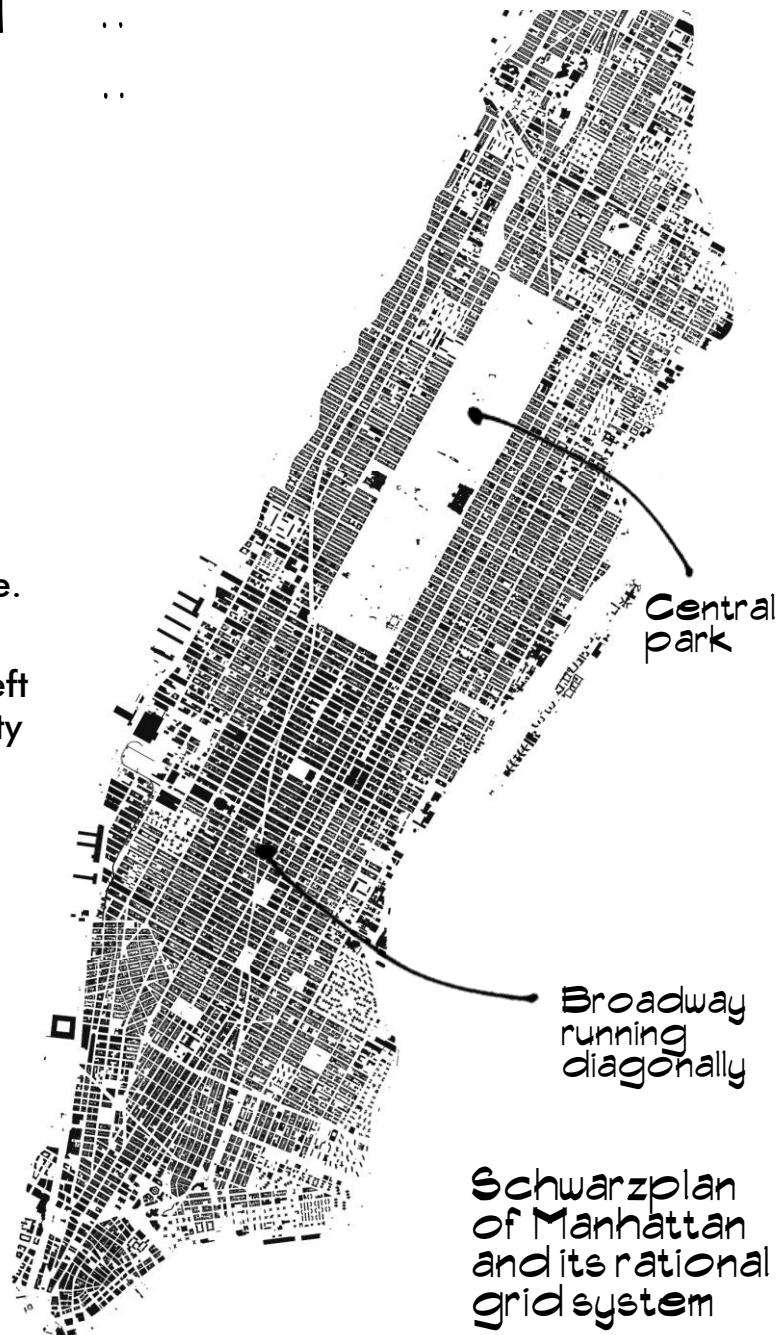


Schwarzplan of the Chicago center

Schwarzplan (from German meaning 'black plan') or also known as figure-ground diagram is a special kind of map, that shows relationship between built and unbuilt space.

Buildings are marked as black figures and everything else is left white. We can see the whole city as a composition of figures.

It is used in urban design and planning.

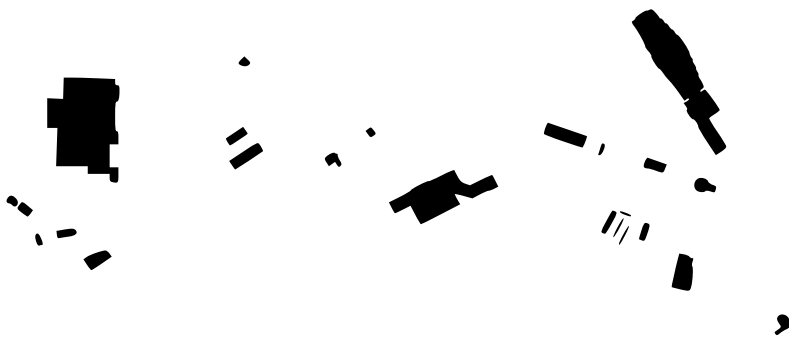


Central park

Broadway running diagonally

Schwarzplan of Manhattan and its rational grid system

City and suburbs



Schwarzplan of urban sprawl in Atlanta, US

In the city, buildings are shaping space around them. In suburbs, buildings stand freely in space.

It is not only important to design a shape and texture of the building, but we should also observe its context in the city.

Buildings in the suburbs are not organized and therefore they create a negative space.

Urban buildings, on the other hand, are formed so as to create positive spaces (plazas, squares, courtyards).

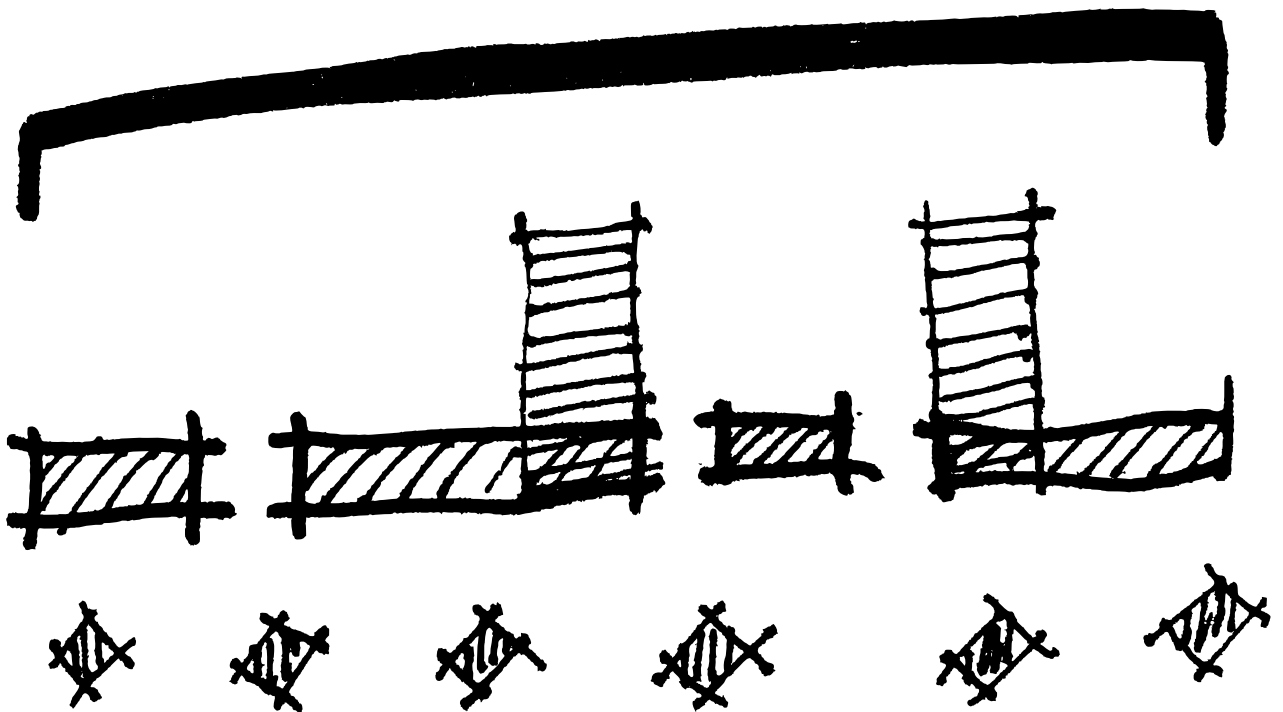


Schwarzplan of Venice - example of a medieval city

Composition

Architectural drawings (floor plans, site plans, elevations, sections) can be seen as a composition of shapes. When you are not sure whether your solution is right, perceive the form and space.

Composition should have some major forming shape and some counterpoint to emphasize it. Composition should be balanced and no part should be left aside. Composition should have variety of shapes and textures to catch the eye of the viewer.



Site plan study for a coastal retreat

Make your own

We can make figure-ground diagram by hand. We can use tracing paper or semi-transparent sheet over an existing map and hatching certain parts.

In vector graphic software, we can insert a screen of a map and trace the edges or trace bitmap automatically.

Before start, find a reliable map and always draw to certain scale. Define why are you making this particular drawing. What is its purpose? Set the rules what should be drawn as a figure. Rules should be clear and consistent.

