- Classicism of Mies -

Attachment

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Preface

In this attachment booklet, I will explain a little more about certain topics that I have left out from the main research. In this booklet, I will especially emphasize classical architecture, and show some analytical drawings of Mies’ work that did not make the main booklet.
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1. Classical architecture

The first chapter will explain classical architecture in detail. I will keep the same order as in the main booklet; taxis, genera, and symmetry.

Fig. 1. Overview of classical architecture
Source: own image
1.1. Taxis

In the main booklet we saw the mother scheme of classical architecture that was used to determine the plan and facades.

```
  a b a
  b c b
  a b a
```

Fig. 2. Mother scheme
Source: own image.

However, this scheme is only a point of departure. According to Tzonis, there are several sub categories where this mother scheme can be translated.

```
  c c b c b c a b c b a b c b a a b c b a
  c d f d c c d f d c c c f c c c f c c
c e d e b d b b b b b b b b b b b b b
```

Fig. 3. Deletion of parts
Source: own image

```
  a b a
  b c b
  a b a
  into
  a B
  B C B
```

```
  a b a
  b c b
  a b a
  into
  B B
c
  B B
```

```
  a b a
  b c b
  a b a
  into
  a C a
  ab b
  abi a
```

Fig. 4. Fusion of parts
Source: own image
Fig. 5. Addition of parts
Source: own image

Fig. 6. Substitution of parts
Source: own image

Fig. 7. Translation of the Cesariano mother formula
Source: own image
1.2. Genera

Subdivision

1. *The entablature*, a horizontal member above the column.
2. *The column*, a long vertical cylindrical member.
3. *The crepidoma/stylobate*, a stepped platform on which the column rests, or a pedestal, a prismatic member under the column.

![Diagram of classical orders](http://www.lssu.edu)

Fig. 8. Overview of the elements applied on the classical orders; a = Doric order, b = Ionic order, and c = Corinthian order.
Source: [http://www.lssu.edu](http://www.lssu.edu)

The **entablature** is articulated into three members:

1. *The cornice*, the uppermost member projecting in the form of a continuous eave.
2. *The frieze*, a band made of blocks resting on the architrave below.
3. *The architrave*, also made up of blocks, which span the distance between two columns and rest on the capitals. The architraves form a beamlike continuous band, flush with the extremities of the capitals. This division holds for all the genera.

The **column** is articulated into three members:

1. *The capital*, the topmost member.
2. *The shaft*, the middle portion.
The **crepidoma**, or the **stylobate**, is articulated into three members:

1. *The cornice*, projecting in the form of a continuous eave.
2. *The dado*, a block of varying height.
3. *The pedestal base*.

Going into more detailed subdivisions, we see the differences between the genera increasingly accentuated. This is again divided into three parts in the *cornice* of the entablature:

1. The row of *antefixes*, upright individual members adorned with flabelliform patterns, usually anthemions, palmettes, or lotuses. Above the three angles of the pediment, the antefixes are replaced by the acroteria, decorative members, usually in the form of griffons, sphinxes, chimeras, or oversized acanthus leaves.
2. *The sima*, a continuous gutter, in early times of terra cotta, then of marble, pierced with spouts generally concealed in carved lions’ heads and ending in a curve.
3. *The geison* or *corona*, continuous stone eaves projecting beyond the frieze below and ending in a straight vertical line. The geison is sometimes doubled. The coffer, or underside, of the Doric geison is traditionally adorned with mutules, sloping flat blocks carrying eighteen guttae and separated by spaces called viae. In the other genera, ornament varies greatly.

The second subdivision of the entablature, **the frieze**, also consists of a tripartition. Although it has different applications per order:

- In the Doric order it is composed of horizontally of two alternating motifs, (1) the triglyph and (2) the metope.
- In the Ionic order is the frieze a continuous band with carved reliefs throughout its full length, hence the name zoophoros given to it in Greek, meaning that which carries representations of live things. A canonical example of this is to be found in the north portico of the temple of the Erechtheion on the Acropolis.

The third subdivision of the entablature is **the architrave**, which also has different tripartition depending on the classical order:

- In the Doric order it is (1) the taenia, a narrow and beamlike strip, slightly cantilevered over the member below, (2) the regula, a narrow fillet beneath the taenia onto which are attached at regular intervals the guttae, a row of six pendant cylinders or cones, and (3) the architrave proper.
- In the Ionic order these are (1) a fillet combined with a cavetto, an unadorned concave molding, (2) a cyma reversa, a band molded with a leaf-and-dart pattern, and (3) an astragal, a decorative, semi-rounded
convex molding containing a so called bead-and-reel pattern of disks alternating with round or elongated beads.

Moving to the first subdivision, the capital, of the column:

- The Doric consists of (1) the abacus, an unadorned square panel, (2) the echinus, a molding with a spreading convex section, meaning flared at the top, and (3) the neckling, differentiated from the column by the absence of fluting and by ornamental carvings as in the Temple of Ceres.
- The Ionic order consists of (1) the abacus, (2) the volutes, which are traditionally likened to a scroll with its two ends wound up in spirals and bulging over the sides of the column shaft, and (3) the echinus, a molding with an Ionic cymation.

The second subdivision, the shaft, of the column:

- In the Doric order this remains undivided horizontally, whereas vertically it is divided into 20 usually shallow flutes separated by their sharply wedged edges or arrises.
- In the Ionic order this is devided into 24 flutes, elliptical in section, and separated by a narrow flat strip.

The third subdivision, the base, of the column is a shared characteristic with Doric as well as the Ionic order. The tripartite organization is (1) the torus, a convex molding, (2) the scotia, trochilus, a deeply concave molding, and (3) another torus.
Modulations

By acquiring certain common attributes, elements that differ in volume, function, or location are recognized as belonging to one family, to one genus as distinct from another. Conversely, elements similar in volume or function can be differentiated. All elements have a deep formal kinship, a coherence in the organization of their features, a consistency in the manner in which these features are structured.

Nested hierarchies

There are three steps of nested subdivisions:
1. Ornaments within member-parts.
2. Member-parts within members.
3. Members within the genus elements.

Contour patterns

There are several ways of structuring space, but within the formal system of classical architecture two paths have traditionally been open:
1. Metric patterns
2. Contour motion

Classical contour patterns arise from the regulated stream of surges, swirls, and whirlpools of solid matter. These small fractions of sequence make up almost a dictionary of appearances.

There are several contour shape characteristics:
1. Protruding
2. Straight
3. Convex
4. Flat
5. Indented
6. Curved
7. Concave
8. Inclined

When we create a classical architectural profile, we pick out certain characteristics from this list and conjoin them. We can maintain the identity of a shape through repetition or by partially changing it through reduction or amplification. Finally, we can alter it by inversion or by inflection.

Taxis patterns and shape patterns work in a complementary way, forming the profile of a column. Although taxis patterns order space by dividing it into sections of three, of nine, and so forth, independently of direction, shape patterns, which inhabit these divisions, give it directionality. They turn the static
sections into the consecutive units of a series; they make them into a series of events in space.

The genera form a level of formal constraints that organize an architectural composition and complement the taxis. Although taxis governs the relation of part to whole, the genera dictate the direction, seriation, and hierarchy of the past. Through the configuration of their profile, the genera make us understand and control space in a particular way.

The ornament of the genera are part of the essential structure of the classical system, vital to its poetics of order. Even though they are applied on small-scale aspects, their affect on the total composition is major. The ornament can make or break the coherence of a classical composition.

**Canon and exceptions**

Classical architecture applies contour patterns, or ornaments, in a limited and systematic manner. Its purpose is mainly to give shape to the members of the genera and, through them, to an architectural scale to form a sense of architectural modality and the possibility of a gradational system of hierarchical composition. Once this is done and once there is a pattern ordered by taxis, the rest is taken care of by metric patterning, what is known I classical poetics as symmetry.
1.3. Symmetry

The last part of classical architecture is symmetry. This part guides designers to place the elements inside the divisions, which are created by taxis and the chosen genera. Symmetry is used to bring the taxis and genera together, in order to create harmony. It is the connecting aspect in creating architecture.

Tzonis distinguishes two relations of symmetry; (1) rhythm and (2) figures.

1. Rhythm
2. Figures, either overt or subtle

Rhythm

Tzonis regards rhythm as one of the most fundamental formal mean of composition in architecture. It employs stress, contrast, reiteration, and grouping in architectural elements. By using these aspects of formal organization, metric patterns emerge. These are small, simple standard groups of stressed units joined to unstressed ones and repeated regularly within a given division of taxis.

Metric patterns are to be found not only in colonnades but in any regular arrangement that manipulates architectural elements through the polarity of stressed and unstressed. We can substitute pier walls for columns and windows, doors, or niches for intervals. We can also replace columns with pilasters and intervals with wall surfaces. Also, we can consider sculptures as stressed elements and as intervals, the background of the sky on which their silhouettes are projected.

We can generalize further by stating that stressed versus unstressed differentiation in the metric patterning of architecture can be generated by several kinds of polar formal oppositions:

1. solid / void
2. concave / convex
3. flat / curved
4. protruding / sunken
5. polished / rough
6. color x / color y

There can be many more complex ones; (1) the double column, (2) the tabernacle, (3) the tetrastyle, (4) the arch framed by engaged columns or pilasters, (5) the Serlian window.

As elements are interrelated with metric patterns, metric patterns or motives can be combined with others in three manners; (1) one over the other, (2) one behind the other and (3) one embedded in the other.

Thus each metric pattern unit of one type might correspond to two or more units of another. The pattern has to commence as well as terminate at the prescribed points. To manifest the idea of the boundary, the canon of classical architecture dictates that the termination element of a metric pattern should not only be stressed but doubly so. There are also other possibilities:
1. Making the previous unstressed unit longer, delaying the accentuated termination, extending the section toward its ends.
2. Combining a shortening of the unstressed unit with a double stressing of the stressed unit.
3. Doubling the size of the corner column to combine it with a pilaster.
4. Replacing the round column with a square pillar.
5. Multiplying the end member in more complex ways.

The stressing of a part is carried out through special formal operations that give a special marker to the part. Usually the volume of the stressed part is brought forward or made taller, or a unique feature, a pediment or a portico is attached to it, a typical technique followed by Palladio.

Figures

Under figures of architecture we include relations among elements or among their compositional units, such as parts, members, and details. Figures are typified patterns for associating units in a manner that contributes to the completeness and wholeness of the work and they defy systematic classification. Figures make the form of a building more complex and rich but with such an increase of overlapping relations that they also open it up to contradiction.

There are two types of figures:
1. Figures that make architectural elements interrelate in a way that directly and overtly contributes to the wholeness and completeness of the composition; parallelism, contrast, alignment, and analogy.
2. Figures that do so through a subtle approach, by means of insinuation; aposiopesis, abruption, epistrophe, oxymoron, “turning the corner”, “feminine” cadenza, Takterstickung, and ellipse.
Expanded application of the classical poetics of order occurs increasingly during the period of the Dominate, the imperial period of Rome, a time when, surprisingly, single buildings became less finely structured, conceptually less wrought to perfection, to “teleiotis”. We find on the Dalmatian coast in Spalato. All efforts since the Renaissance point to 2 directions ahead by the Spalato complex:

1. Enlargement of the area of applicability of the whole classical canon to cover large complexes that include several heterogeneous building.
2. Creation of genuinely new building types as integral parts of these larger compositional entities - articulation of buildings into the end, middle or beginning section of a larger plan.

*Antiquization* is a term coined by architectural historians to refer to the Renaissance practise of giving a city the appearance of ancient Rome or Athens through the introduction of structures organized in the classical mode.

*Parataxis* is a specific means of responding to the pragmatic social demand felt increasingly from the Renaissance on for the orderly sequence of classical facades in a street or in a square. *Entaxis* is a compositional approach of much greater ambition than parataxis, because it is preoccupied with taxis extending not only in a linear direction but in all directions.

According to Tzonis, classical forms are linked with larger iconographic systems:

1. **Neoplatonic cosmology;** churches, palaces, gardens or whole cities have been given specific forms that agree with the cosmos presumably.
2. **Antiquization;** suggests parallels in the mind of the beholder between ancient regimes and contemporary political powers and thus to legitimize the latter by analogy. A further study of the use of the classical idiom shows classical architecture to have been engaged in many contradictory meanings and uses since the Renaissance.
3. **Tectonics, and through it, to functionalism;** associated with a passage in Vitruvius, where he speaks about ornaments of the genera and interprets them as originating in the details of older wood construction. The genera are deduced from true nature. The building imitates reality, as its final validation, “what cannot occur in reality” cannot be treated in imitation correctly.

Looking at these three, my project will fit mostly in the first and the third aspect of the iconographic systems.
Three major applications of partial use of the classical canon:

1. **“Citationism”** of classical motifs, or so-called freewheeling classicism. The logic of deception, fake intimacy. The temple is not set apart from the world; it lies there accessible and up for grabs. With this vanishes the imitative heroic character, the representational tragic, poetic function of classical architecture and together with it, the critical stance.

2. **Syncretism**; more than one canon is used simultaneously in the same design, even if these are at odds and produce non sequitur effects.

3. The use of classical fragments in architectural “metastatement”. A world of higher statement is built that refers to the classical canon. Classical segments are used as means of saying something about classicism, they become statements within a higher level metastatement.
2. Case studies

In this chapter, you will find analyses I from Mies van der Rohe, Palladio, and ancient Greek temple.
Barcelona Pavilion (1/2)

Plan traced back to a rectangle by filling up the gaps (water).

The sum of the length of the walls have the exact same length of the traced back rectangle.

The positioning of the walls are derived from the axis in the design. The axis are positioned exactly in the middle of the design. The two walls (green) cross the y-axis equally while another wall (green) is located on top of the x-axis.
Two possible approaches for the scheme.

**Classical scheme** (note: this scheme does NOT deal with the exception of the right upper c)

- a = connecting space
- b1 = circulation
- b2 = observation area
- c = nature / outdoors

**Mies's scheme**

- a = connecting space
- b1 = circulation
- b2 = observation
- c = nature
- d = exception
Farnsworth House (1/2)

Two possible approaches for the scheme.

**Classical scheme**

A is here the unique spot of the scheme. Normally A would be the center of the dwelling, however in this case it is the space that connects both platforms (b). We see that the design could have been derived from the motherscheme.

Looking only at the design with the input of the motherscheme, we see the scheme B-A-B. The platforms represent inside and outside, with the idea that there is no difference. Nature has became a part of the interior itself.

**Façade scheme**

a = center of the house  
b = observation space  
c = nature
Farnsworth House (2/2)

Forming of the design

A. Design starts with a rectangle, just like with Mies's floorplans.
B. Mies wants to make nature a part of his interior. To accentuate it he divides the rectangle in two parts.
C. Finally he accentuates both elements using different heights.

Special scheme

This scheme takes the house itself as the unique spot A, however the nine grid system is not applicable.
Urban forming; from grid to plan

1. Using the towers structural grid, gives this urban grid.

2. Fill up the missing grid.

3. This urban grid allows two more towers, four in total. I believe that this grid could have been the starting point.

4. Eliminate two towers.

5. Rotate one of the towers 90 degree from the middle axis.

6. And the result is the design of the two towers.

Classical scheme also visible in the retraced urban grid, that looks the same as its floor plan. With A being the connecting element. In this case between the four possible towers.
860-880 Lake Shore Drive Apartments (2/2)

Classical scheme

![Classical scheme diagram]

- a = circulation area
- b = connecting spaces
- c = view of nature (unique spot)

Mies's scheme

![Mies's scheme diagram]

- a = circulation
- b = connecting spaces
- c = lesser important rooms
- d = most important rooms (unique spot)

Façade scheme

![Façade scheme diagram]

Because the starting urban grid and the significance of the bigger picture of all the towers together, looking at both towers as the façade shows the empty space in the middle as the unique spot. We might say that outdoor (nature) is the unique spot and the towers (b) are the observation points.

- a = nature (unique spot)
- b = observation points
Palazzo Chiericati (1/1)

Classical scheme

Subdivision; **addition or repetition of parts**

Subdivisions; **fusion and addition** of parts

Façade scheme

---

**a** = vestibule  
**b** = circulation  
**c** = rooms and outdoor area

**a** = vestibule  
**b** = circulation  
**c** = empty and connecting area  
**d** = rooms

**a** = connecting area  
**b** = circulation  
**c** = rooms  
**C** = entrance  
**d** = empty space

**a** = unique part  
**b** = symmetry
Palazzo and villa Thiene (1/2)

Classical scheme

Subdivision; fusion of parts

Subdivision; deletion of parts

Façade scheme

a = courtyard
b = rooms
c = rooms

a = courtyard
b = rooms
c = rooms
C = entrance

a = courtyard
c = rooms and entrance
d = rooms
e = rooms

a = unique spot
b = symmetry
Palazzo and villa Thiene (2/2)

Classical scheme

a = connecting space
b = halls
c = rooms / outdoor

Façade scheme

a = classical part
b = symmetry
c = symmetry

Tripartition in the volumes; b-a-b scheme

a = connecting space
b = building blocks
Villa Cornaro (1/1)

Subdivisions; fusion and addition of parts

a = hall  
b = rooms  
c = connecting spaces  
C = main entrance  
d = outdoor  
D = secluded spaces

Although, once we put the rooms D next to the entrance, this can be traced back to the mother scheme.

Façade scheme

a = classical part  
b = symmetry  
c = symmetry
Villa Rotonda (1/2)

Classical scheme

a = connecting space (spiritual)
b = circulation area
c = nature

Hidden layer "c" active? So that "a" can observe nature through "b" standing in "a".

Two schemes possible with the mother scheme.

1. Dome as centre scheme
2. Whole volume as centre scheme

Interesting note: if we take Dome as centre approach, we can fit every room in the first line of grids of b's and c's.
Villa Rotonda (2/2)

Façade

a = classical part
b = symmetry
c = symmetry

c b a c

Section notes

Looking at the section, I see a certain game being played with only three geometric shapes:

a = circle
b = triangle
c = square / rectangle

Through carefully organising these shapes, the villa builds up this spiritual moment in space "a". It's as if each geometric shape has its own meaning:

Circle = endlessness
Triangle = transition / ascending
Rectangle = entrance / solid

Although, this raises questions like:
What makes this spiritual apart from transition towards spiritual relief?
Is it the increase in size? Spaciousness?
Classical scheme

a = spiritual space
b = outside space
c = outside space

Another possibility is dividing "a" in two parts. Creating a special scheme just like with the Farnsworth House.

Façade

What is so fascinating about classical facades are the oneness. The rhythm (a part of symmetry) originates from the heavy stone columns, instead of big volumes with depth differences. That is why I perceive these facades as flawless and in total singularity.