

# 53 CONTEMPLATIONS FOR COPENHAGEN

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The architectonic commission described here and its execution did not commence (in the usual way) with a programme, a piece of land and a budget within which an architect is asked to deliver a solution for a spatial-material problem. The problem was, that there was no ‘problem’. Circumstances of a much different type applied. A commission like this makes one conscious of one’s own professional conditioning.

## 53.1 INVITATION

In 1996 Copenhagen was declared cultural capital of Europe. Helle Juul and Flemming Frost had conceived of an opening exhibition that would be called ‘*Overlooking the City, Copenhagen as it is perceived*’. With this in mind, next to artists, film-directors etc. five foreign architects were invited: David Chipperfield, Enric Miralles, Thom Mayne of Morphosis, Hani Rashid of Asymptot and the author. The task we were presented with as architects was called ‘*The Cartography of the Pause – Architectural Visions for Copenhagen*’. There is a certain esoteric ring to this title and also the material accompanying the invitation did little to clarify the (architectonic) commission, to indicate the ‘problem’ or the question.

The commission as a whole however made a thoroughly professional, excellently produced and well-considered impression; sufficient to accept the invitation. The wooden cassette, built with sophistication, that contained the material, aroused already curiosity before its content could be inspected. The opening of this cassette displayed on the inside of the lid the invitation and the concept for the exhibition. The box itself contained, covered by a wooden plate engraved with numbers and lines, and perforated with sixteen quadratic holes, the following:

- a foil with UTM<sup>a</sup> gridlines;
- an aerial photograph of Copenhagen;
- a number of black and white maps showing the historical development of Copenhagen as a spatial-material fabric;
- and sixteen quadratic cuttings from an aerial photograph<sup>b</sup> with grouped around them for each cutting four photographic renderings of the respective directions of viewing from the intersection of the grid lines.

That had to suffice.

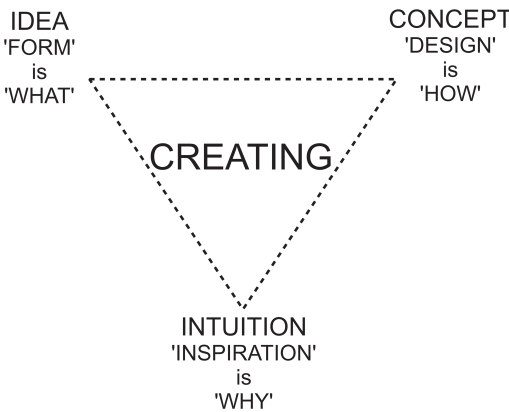
On a moment like that, one realises that – in contrast to the usual professional commission – a disciplinary commission is involved, in which architecture is interrogated as a (scholarly) discipline, as a way of thinking and acting: and by the same token of (spatial) designing.

## 53.2 BEGINNING

Additional scrutiny of the material also provided precious few hints to find the direction for a design. The task had to be interpreted and defined on the basis of the individual self; if something had to be designed at all. The ‘problem’ was the problem of creation itself, the question of the ‘beginning’. The moment the ‘what’, ‘why’, and ‘how’ questions, fundamental to creating (or ‘designing’) come to the fore simultaneously.

The first choice made, the first step put into the direction of the unknown, can not be thought logically or rationally. The first step is – by definition – pre-conceptual. ‘Creating’ simply takes doing (and the courage needed for it): that is literally and figuratively the ‘art’, preceding all science and knowledge.

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528 Creating

a The Universal Transverse Mercator Grid is a co-ordinate system for position determining on the globe with respect to the projection of this globe on the flat surface of a map.  
 b Scale-wise these were cuttings of 100 x 100 metres in reality with the intersection point of the UTM gridlines for a centre.

### 53.3 CONCRETISING FREEDOM

Creating is a form of spontaneity hovering on the edge of what is possible and what is real; on one side shunning a mode of randomness – in which everything is possible – on the other, a mode of absolute determinism; in which just one possibility finally remains. This freedom as creative imagination is therefore a form of spontaneity within structures and rules.

Merleau-Ponty terms this capability to generate a situation within which things become possible (and only because of it) ‘concrete freedom’.<sup>a</sup> Usually it is a form of freedom emerging if one takes a certain distance to ‘reality’ and recognises that something like a ‘playing-field’ or ‘space of the possible’ does exist. In this case exactly the opposite applied. The ‘playing-field of the possible’ had to be restricted in an earlier stage in order to be able to come to the ‘reality’ of a design.

As in any design, the art is to design a ‘game of creation’. In it, the ‘act of designing’ (as a process) is itself the playing of the game that creates something. Like poets are wont to, but architects as well – just think about the *oeuvre* of John Hejduk – I thus had to formulate for myself some rules (a structure) that could and should enable the ‘game’ of designing.

### 53.4 INTERPRETATION

My interpretation of the material and the title: ‘*The Cartography of the Pause*’ boiled down to that it centred around the question to what extent the notion of place, as defined by the intersections of the U(niversal) T(ransversal) M(ercator) grid may be put into relation with the place in the urban fabric of Copenhagen.

My definition of the ‘problem’ (the commission) became endowing form to the relation between – on one side – a very precise abstract point – a (geometrical) ‘place’ as dictated by ‘higher powers’ ‘top-down’; and on the other side the concrete, spatio-material ‘non-place’: as witnessed on the projection of this point in reality. This calls for instituting a (spatial) ordering linking the abstract (the ‘higher’) to the concrete (the ‘earthly’).

### 53.5 INAUGURATION

This is an old, and to architecture, fundamental ‘problem’, considering the two main reasons why the cultural phenomenon ‘architecture’ was invented at all. Architecture is on one side the predominantly physical protection against earthly ‘nature’; on the other it is the pre-dominantly spiritual ordering of that same (but now a higher, so-called ‘cultivated’) ‘nature’.

In whatever way we look at all cultural phenomena – be they architecture, language, legislation, manners and morals – they are always forms of ordering. They all order a certain kind of ‘space’; or, in the perspective of Huizinga’s phrasing<sup>b</sup>, they define a ‘playing-field’. In this regard this ‘making into a place’ of a ‘non-place’, this creation of an ordering of ‘space’ (and time) is a fundamental (architectonic) act. In antiquity it had its own (playing) field and (playing) time, its own ritual. Stonehenge, pyramids and temples, all of them (re)present a space-time ordering of this (higher) ‘nature’.

It just happened I knew from Rykwert<sup>c</sup> the description of the ritual Etruscan and Roman priests – the ‘Augurs’ – performed in Antiquity in order to found a new city or temple. Founding means the making into a place of something that in space and time has no place as yet: literally ‘inaugurating’, instituting an order. In Rykwert’s description of this ritual some points come to the fore displaying much affinity with the material I received from Copenhagen. It did not take too long for me to understand and to get the idea to introduce this ritual by way of a ‘rule of the game’ and to observe what it would yield towards a design.

### 53.6 CONTEMPLATION

Transforming a ‘non-place’ into a ‘place’, commencing it to become part of the ordering of the ‘space’ (or the territory), as it comprises the grand total of all ‘places’, involved for the Romans an old and complex ritual, called ‘*contemplatio*’. This *contemplatio* consisted out of: the naming of ‘signs’, a ‘circumscription’ of the panorama as viewed by the Augur within

a Merleau-Ponty, M. (1962) *Phenomenology of perception*, p. 434-456. Originally published in French: (1945) *Phénoménologie de la perception*. Dutch translation: (1997) *Fenomenologie van de waarneming*.

b Huizinga, J. (1952) *Homo ludens, proeve eener bepaling van het spel-element der cultuur*. English translation: (1980) *Homo ludens, a study of the play-element in culture*.

c Rykwert, J. (1988) *The idea of a town: the anthropology of urban form in Rome, Italy and the ancient world*.

the ‘*templum*’, as well as contemplating, ‘reading’ and weighing (interpreting) the significance of the ‘signs’. Our word ‘temple’ still refers to this concept ‘*templum*’. Literally it stands for ‘the defined open space within which the signs are read and interpreted’. The Latin *templum* goes back etymologically to the Indo-German stem ‘*tem*’, indicating cutting. As such it establishes a strong architectonic link to the ‘cutting out’ (in the sense of defining or de-termining) of a ‘space’ from the infinite, ‘natural’ space.

Much the same can be observed in the etymology of the enclosed sacred space of the Greeks of Antiquity, the so-called ‘*temenos*’, referring in a similar vein to the Greek verb ‘*temnein*’, also meaning cutting.

The temple is a cut-out space within which the signs become significant. According to Rykwert the specific elements of the ritual of this *contemplatio* were: ‘*conregio*’, ‘*conspicio*’ and ‘*cortumio*’. In this the Augur proceeded as follows.

For the *conregio*<sup>a</sup> the Augur drew with his staff (the ‘*lituus*’) a diagram on the ground. In doing so he divided the space of the *templum* and determined as well the four main directions: east, south, west and north. At the same time he named the ‘significant’ elements in the landscape defining the *templum*, by way of pointing at them with his ‘*lituus*’.

For the *conspicio*<sup>b</sup>, conducted in parallel with the *conregio*, the Augur followed with his eyes the direction of the gestures of the other one. By looking around and gesturing he united the four separate *templa* of east, south, west and north into the whole space of the *templum*, defined and ordered now; subsequently he internalised them for the contemplation.

Next, he pronounced the “*legem dixit*” (the what the law says, or what the rule prescribes). This way he made a kind of covenant on the future, by indicating on what topic he made a prophetic statement and which omens or preceding ‘tokens’ were meaningful in this respect.

Finally the *cortumio*<sup>c</sup> ended the ritual of *contemplatio*, when the omens, signs or tokens were judged by the Augur according to the rules of his ‘art and science’.

This ritual of the *contemplatio* got its name on the basis of the diagram, the pattern (or the ‘template’)<sup>d</sup> the Augur kept projecting on to space to order it. The (geo-metric) pattern of a square or a circle, with which he represented the defined (cut-out) space, with on top of that – starting from the middle – a cross, dividing the infinit space and as such ordering it in four directions: ‘in front / east’, right / south’, ‘behind / west’ and ‘left / north’.

The combination and sequence of ‘in front-right-behind-left’ and ‘east-south-west-north’ I use deliberately here, since ‘in front-right-behind-left’ originate naturally from the upright human body; they are relative compared to ‘above’ and ‘below’. However, the Augur – in seated position – created a ‘fixed’ ordering; in the largely horizontal space of the territory, by making use of the (‘fixed’) course of the sun, that made the space, with its ‘fixed’ ordering of above-below truly three-dimensional; if not four-dimensional.

### 53.7 CONTEMPLATIVE INTERPRETATION

Looking now to the material I received from Copenhagen, and particularly, to the cutouts taken from the aerial photograph, with the four views in the directions of the UTM grid lines, the ensemble actually embodies sixteen different *templa*.

One could say that one’s task as an architect in this case may be regarded as the one of an Augur with the responsibility to ‘contemplate’. To myself I regarded it in such a way that I was supposed to interpret the ‘signs’ that I could recognise in the several *templa* and to make a ‘pronunciation’ about them by way of a ‘design’.

In any case, one has the feeling now to have come a bit closer to designing through this analogy with the ancient Etruscan-Roman ritual for founding a city; after all, this ritual did put on a wealth of architectonic forms,- just think of all the cities and temples built by old Etruscans and Romans.

- a The ‘*regio*’ in *conregio* represents a direction and/ or border and refers in its turn to the Latin verb ‘*regere*’, meaning ‘ruling, guiding, directing’, as a form of movement in a straight line.
- b The ‘*spicio*’ in *conspicio* is referring to ‘*spicere*’, meaning ‘watching carefully’ or ‘observing’.
- c The ‘*tumio*’ in *cortumio* is etymologically akin to ‘*tueri*’, meaning ‘watching carefully’, ‘observing’ and ‘contemplating’, as also heard in words such as intuition and tutor.
- d Hence the English word ‘template’ for a linear mould.



529 Labyrinth, after ancient Cretan coin<sup>a</sup>

At the same time it is clear that this does not say anything as yet, because ‘what’ should now be designed? You just know, you could also conduct a ‘conspicio’ and try to read the ‘signs’ per place from the photographs. And also one might apply a ‘conregio’ by projecting on each place a directed diagram, a ‘template’.

For the Augurs such a diagram usually was a square or circle, with within it a cross. I choose the diagram of the labyrinth according to the myth designed by the architect Daedalus.

### 53.8 LABYRINTH TEMPLATE

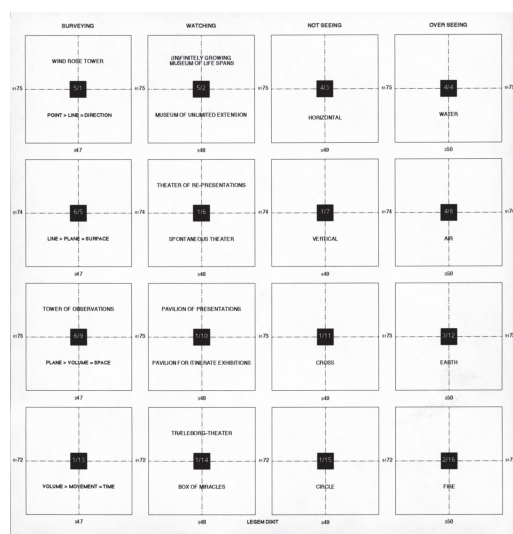
This labyrinth figure might be square or circular as long as it has seven tiers:<sup>b</sup> a labyrinth of the Cretan type. The labyrinth is not only a kind of architectonic (spatio-temporal) ‘diagram’, with an old fascination on me because of its many ‘dimensional’ aspects, but it also has a lot in common with the diagram employed by the Augurs.<sup>c</sup>

In addition to the *conspicio* and *conregio* it is possible to apply a *cortumio*<sup>d</sup> as well: that is to say: one may judge the ‘signs’ in relationship to the labyrinth diagram from one’s perspective as an architect and let it accumulate in a concrete design.

The process of designing or creating may be seen as a continuing cycle between three questions: ‘what?’, ‘why?’, and ‘how?’. In this case I could cover the ‘why’ in first instance by the ritual of the *contemplatio*. There was no need to worry as yet about the ‘how’ question: that is in first instance concerned with one’s own confidence in oneself as a designer. Before that is put to test however, one should first know a little more about the ‘what’ to be designed.

So the game needs an internal logic, similar in a sense to the *legem dixit* (‘the rule says’) in the ritual of ‘contemplatio’. The most obvious internal logic was the one of the matrix, of the 4 x 4 points themselves as prescribed by the material itself. I could make groups of four points which had to be charged next by a theme. Given the fact that not only the 4 x 4 places were numbered through horizontally, but that in the description of the concept for the exhibition four themes were also indicated - all of them associated with ‘looking/seeing’ - I simply used these themes, respectively ‘surveying’, ‘watching’, ‘not seeing’ and ‘overseeing’, as the vertical grouping principle of the ‘matrix’, in the present case perhaps better called the ‘playing field’.

This also does not provide, as yet, a concrete ‘what’ for the various points, but resulted in more ‘order and structure’.



530 Matrix

### 53.9 CONSPICIO

The next step was to play the ‘game’: that is to say to conduct the *conspicio*. And you start to understand that this has many similarities with a psychological association test. In order to get from the start many associations and so to see which ‘signs’ in the photographs were ‘significant’ (meaningful) I asked all my collaborators to write down per place and photograph some key-words; without giving it much thought, ‘from the gut’ as it were. I collected their reactions and looked at them together with the photographs from the perspective of the (vertical) themes in the matrix. I stood surprised by the consistency one can apply as an architect in such an ordering by some fantasy.

It is an old principle, particularly applied by writers. A fine example is Italo Calvino’s ‘The Castle of Crossed Destinies’, in which he generates, with cards from the Tarot he puts out in a matrix, vertically and horizontally a number of stories.<sup>d</sup> These stories originate from the elements he finds on the pictures on the cards. Consider also Georges Perec’s book ‘Life; a users manual’<sup>e</sup>, in which he does something similar from a picture of a doll-house like cross-section of a 19th century apartment building.

This *conspicio*, linked to the *legem dixit* (what the ‘law or rule’ says about the theme), provided me with a further structuring of my ‘playing field’. Now I could venture into the *conregio* and *cortumio* of actual design.

- a Source: Kern, H. (1982) *Labyrinthe, Erscheinungsformen und Deutungen 5000 Jahre Gegenwart eines Urbilds*.
- b That is to say that the labyrinth should be of the Cretan type.
- c Not to be explored further: a story in its own right.
- d Calvino, I. (1977) *The castle of crossed destinies*.
- e Perec, G. (1987) *Life: a user's manual*. Originally published in French: (1978) *La vie, mode d'emploi: romans*. Dutch translation: (2001) *Het leven, een gebruiksaanwijzing*.



### 53.10 SURVEYING

The vertical row of 'surveying' could, for instance, rather easily be read from a geometrical point of view of surveying as land measuring.

On the first location the wealth of lines was apparent, for instance, on the second the squared planes of the pavement, on the third the enclosure at four sides of the inner court in a building block and on the fourth the railway cars on a platform of exchange:

point → line = direction

line → plane = surface

plane → volume = space

volume → movement = time

This resulted then – while continuing to imagine and associate – in an ordering of the kind we know from a drawing by Paul Klee, in which he tried to clarify by arrows the various geometrical dimensions.

From the point (dimension zero) the line (first dimension) grows via an arrow of movement. On its turn this line transforms through arrows of movement to a plane (second dimension), then to a volume (third dimension, space). This volume may then be imagined as a representation of the fourth dimension, time; again, through an arrow of movement.

### 53.11 WATCHING

The second vertical row, with 'watching' for its theme, proved programmatically to be the easiest one, since I could associate in this row 'watching' via the 'signs' per location with the unity of the four elements occurring continuously in the oeuvre of Le Corbusier as a kind of '*Gesamtkunstwerk for watching*'. The architectonic work of Le Corbusier as a whole is pervaded by a kind of obsession for the eye and for watching.

Every time when he projects in his many urban plans a '*Musée à Croissance Élimitée*' again, this is accompanied by a '*Boîte à Miracles*', a '*Théâtre Spontanée*' and a '*Pavillon des Expositions Temporaires*'. Obviously these designs do already have a programme.

In my case the 'Museum of Unlimited Extension', situated qua *templum* on a churchyard, became an '(In)initely growing Museum of Life-spans'.

The 'Spontaneous Theatre', situated in the park of the Palace, became a 'Pavilion of Representation'.

The 'pavilion for Itinerate Exhibition', situated opposite the building of Parliament, became a 'Pavilion of Presentations'.

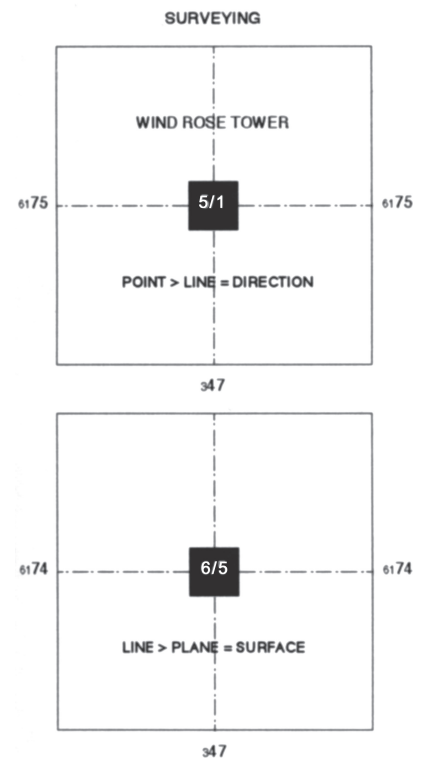
The 'Box of Miracles', situated qua *templum*, opposite of the old ramparts, became a 'Traeleborg Theatre'; more on that later.

### 53.12 RESULT

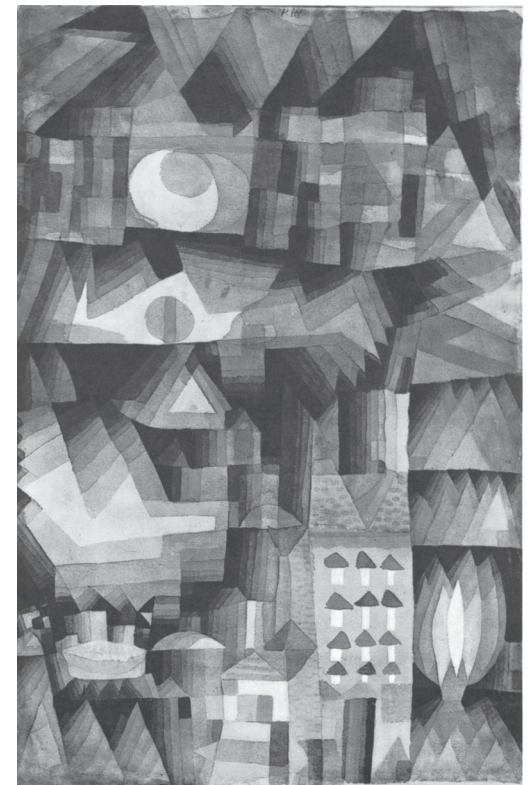
The remaining two rows will not be dealt with, since there was not space enough within the concept of the exhibition for more designs. I made designs for six locations: two from the first and four from the second row. Per row I formulated some playing rules, such as the material used and the technique for the making of the models (perspex for the first, wood for the second row).

With the rather strict exhibition regimen in view, dictated by an exhibition piece of furniture with three large, upright double glass-plates, I presented each design as a model, scale 1/ 100 in a perspex cube of 30 cm and a quadratic perspective drawing of 60 cm in pencil. This was drawn in such a way that the 'outside' of the design at one side of the transparent paper was visible in the 'inside' of the design, rendered at the other side. In addition there were per design one or two quadratic computer drawings of 30 cm, with plans, sections, elevations and an explanatory text.

So what was presented on the exhibition in Copenhagen were six 'contemplations', six designs for six different locations, all based on the same two-dimensional labyrinth dia-



531 Surveying



532 Paul Klee, *Traumstadt*, 'Dream City' (1921)  
Watercolor and oil, 18 7/8 x 12 1/4"; Private collection.

gram (one circular and five rectangular, in terms of basic pattern and measure all identical). Seen from above, the intersections of the UTM grid lines would thus be marked by the same two-dimensional emblem of the labyrinth (circular or square), while in reality they would represent as three- and four-dimensional architectures each of them a different spatial experience and ‘function’.

### 53.13 INTUITION

As a piece of study by design this project clarifies what happens often subconsciously as intuition in the process of creating. Intuition is the knowledge and capability embodied in the person of the designer that operates on a level between the un-conscious and the conscious. Intuition, or in-sight<sup>a</sup>, plays an important rôle in the design process, because one has to be able to follow as an architect, designer and generator of form (and within the design process of course also as an evaluator) a rapid route on the edge between what is possible and what is real.

It is a narrow road. On one side the ‘scientific and objectivistic’ monster of absolute determinism is lurking; on the other the ‘artistic and subjectivistic’ monster of gratuitous randomness. One operates in an in-between area that one has become to embody insight through embodied experience.

Deliberately, the word ‘embody’ is used. Still, all too often, it is attempted to ascribe insight in Cartesian sense to a so-called ‘pure’ spirit, severed from the body. A morality claiming descent from Plato further sees to it that we extol in our western culture thinking above acting. The work of the hand is still regarded as subservient to the work of the mind. However, Plato was a ‘thinker’ by profession, and lived in a culture where slavery was normal.

It takes one’s entire somatic reality to experience and to learn; and I mean by ‘embody’ exactly the unity of ‘body and mind’ as one meets with in Waldenfels<sup>b</sup> or Johnson<sup>c</sup>. In the same way one arrives at one’s own experiences physically – and to a high degree unconsciously – this ‘area in between’, the area of the ‘imagination’ (one’s powers to imagine and to (re)present) as an architect is not explored exclusively by thinking, but (particularly) also by doing.

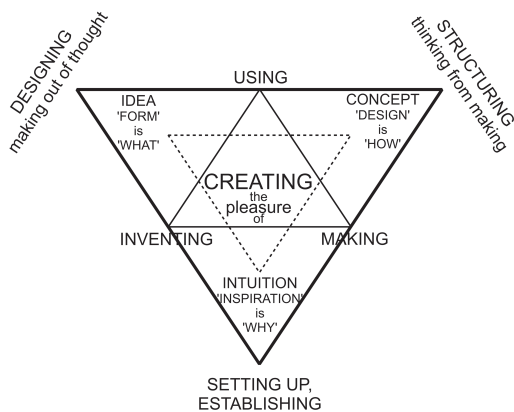
Just ‘thinking a design’ resembles trying to learn to ride a bike theoretically. In the first instance certain things are learned by doing; and it often helps not to think at the same time, but to postpone it to later. In the case of ‘designing’ we could talk about an ‘art’ in the fundamental meaning of that word, knowledge and capability linked to insight and vision.

During designing these embodied kinds of knowledge (science) and capability (art), manifest this ‘experience’ (physical) by insight, or intuition. The concept ‘intuition’ comprises next to insight also the aspect ‘vision’, that is so important to designing.

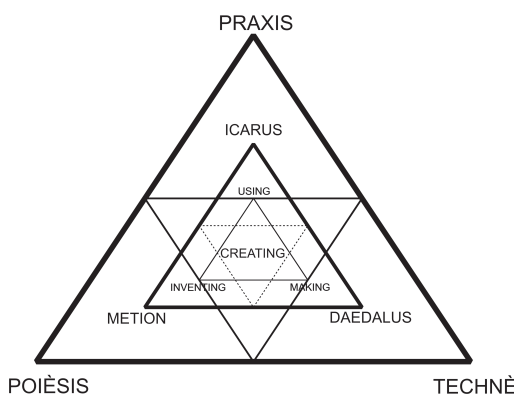
### 53.14 CREATING

As we use it in our discipline, the concept ‘designing’ puts too much emphasis on just one aspect of creating: thinking. That is the reason why I use the word ‘creating’ here. By creating I intend to indicate at one side the ‘making’, the rather ‘profane’ form of creating that should always be serious, and on the other ‘creation’, the rather ‘divine’ form of creating that can and should be occasionally frivolous and idiosyncratic. When we try to understand how creating goes about its business, we should first inspect the mindsets in which creating as a philosophical category is viewed in western culture in past and present.

Within Greek philosophy (and its predecessor, mythology) we discern largely three modes of creating: ‘*poiësis*’, the rather abstract, spiritual way to create (think of the semantically inclined figure of the ‘poet’); ‘*technè*’, the rather concrete, physical way to create (think of the rather syntactically inclined figure of the engineer, the ‘technician’); and ‘*praxis*’, the creating that originates from using, from executing and performing (think of the rather pragmatically inclined figure of the virtuoso).



533 The Pleasure of Inventing and Making



534 Setting in Classical Philosophy

- a Intuition is derived from Latin ‘*intuèr*’, meaning ‘looking at’, ‘contemplating’.
- b Waldenfels, B. (2000) *Das leibliche Selbst, Vorlesungen zur Phänomenologie des Leibes*.
- c Johnson, M. (1992) *The body in the mind: the bodily basis of meaning, imagination, and reason*.

Creating as the human mode of the 'divine game' of creating may be seen as the pleasure and satisfaction in the 'game of thinking out (inventing), making and using'.

The three faces of creating: very schematically and coarsely expressed in *poièsis*, inventing, *technè*, making, and *praxis*, using (and evaluating) can admittedly be distinguished from one another, but do remain a tripartite unity, enabling the game only as a closed form. This tripartite unity is reflected in the predecessor of philosophy, mythology. The unity is presented as a family relationship between mythological figures representative for ('human') creating. The best-known figure is Daedalus, the mythical architect-engineer-artist-inventor, the 'Maker', representing *technè*. His name is derived from the Greek '*daidal*', meaning something like 'cunningly crafted'. His son, Icarus, the 'User' of the wings made by his father represents as the first test-pilot *praxis*. Daedalus' father Metion, less well-known, is the 'Thinker'. His name is derived from the Greek '*metis*', meaning not only spirit, but thinking as well. He represents *poièsis*.

The idea of triple unity and trinity also exists in the Christian version of the 'Creating' (divine) Trinity in the figures of God the Father, Creator of the world, Christ the Son, descending into the world to try it, and the Holy Spirit, surveying the ensemble from up above.

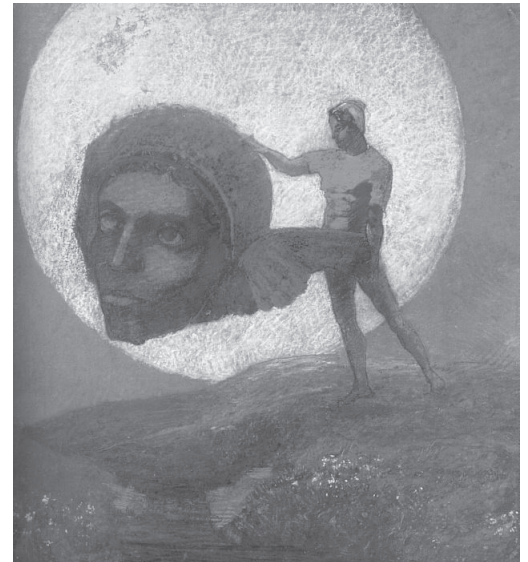
However, the most important aspect for 'creative disciplines' in general and for architecture in particular is the joy one should experience as 'designer / creator' or 'architect / artificer'. One experiences it in the trinity of inventing, making and using, or of what one designs (invents), endows with form (makes) and applies (uses, tests and evaluates).

'Designing as planning' stands for 'making by thinking', 'designing as giving form' for 'thinking by making' and 'applying/ evaluating' for 'the evolution of what has been thought and made, by re-thinking and re-making again and again'.

### 53.15 THE TRAELEBORG-THEATRE

How this continuous cycle of 'what', 'why', and 'how' questions are expressed in the design within the design process can only be shared and expressed, given the continuous considerations the cyclical process of 'inventing/ thinking', 'making/ doing' and 'applying/ evaluating' entails, in the designs themselves.

For an example I take the only circular design, since it shows how one can transform the two-dimensional pattern of the labyrinth (read as a figure of movement) into a spatial-programmatic architecture.



535 Odilon Redon, *The fall of Icarus* (1900) pastel, The Rothschild Art Foundation.

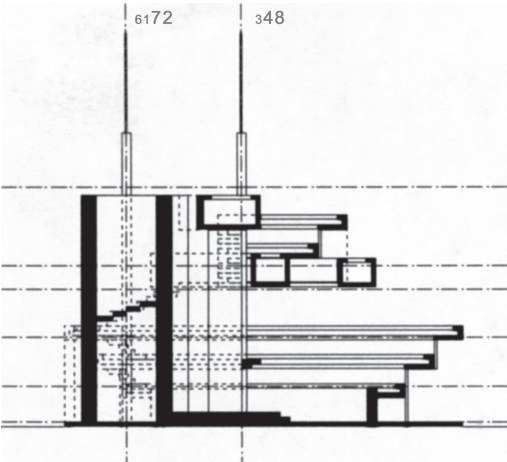
CONSPICIO: the reading of the signs within the 'Templum' represented by the four views and the aerial photograph.



536 The aerial photograph

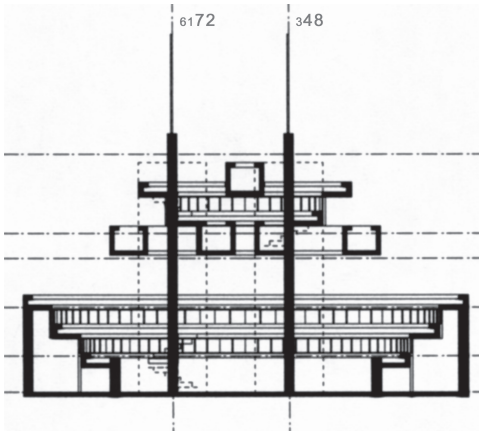


Boulevard: a wide city street, often tree-lined and landscaped. French, from Old French *'boloard'*, *'belouard'*, rampart, promenade converted from an old rampart, from Middle Dutch *'bolwerc'*, bulwark. Bulwark: a wall-like structure raised as a defensive fortification, a rampart. A boulevard missing its bulwark? A field, a landscape not landscaped? A platform with traces of former buildings and columns, a tower not a tower.



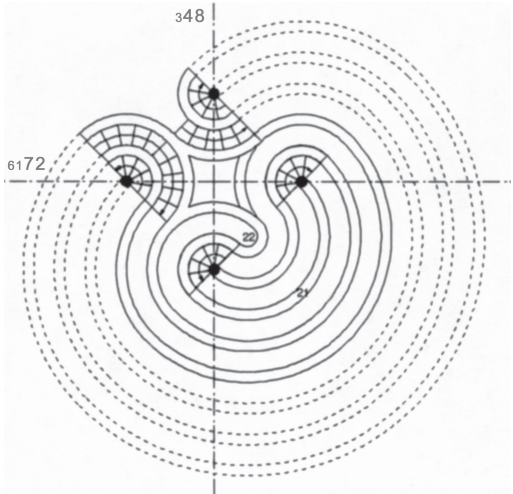
537 A tower that is not a tower

LEGEM DIXIT: the 'theme' for this specific *Templum*.  
Box of Miracles.



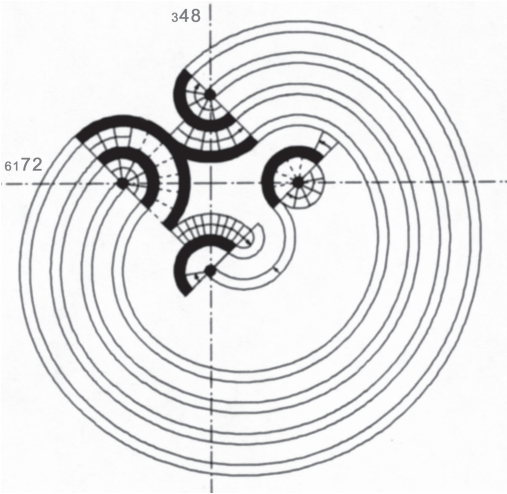
538 Box of miracles

CONREGIO: the laying out of the 'Template' of the labyrinth and its directions.  
The construction of a labyrinth-diagram on to the location and the determination of its exact placement and directions according to the UTM Grid point takes place as follows.  
The UTM Grid point is projected to be the centre of a cross laid out in the directions of the UTM Grid, this cross is marked by four points in such a way that these points form a square of 4.80 x 4.80 m.



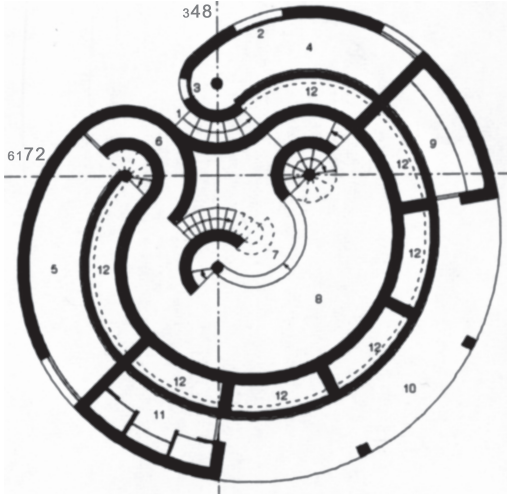
539 Corner-points

Within this square these corner-points are then used as the centres of four quarter-circles with a radius  $1/2 \times 4.80 = 2.40$  m. and four quarter-circles with a radius of  $1/2 \times 2.40 = 1.20$  m.



540 Fourquarter-circles

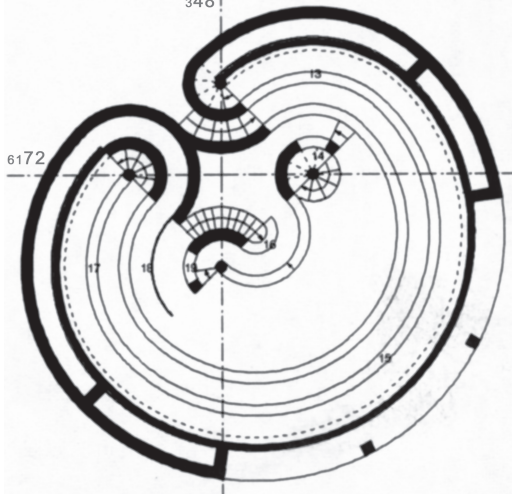
After that the entrance of the labyrinth is determined by choosing a point on the square between two of the quarter-circles. This also defines the end-point since it will be situated on the line that leads from the entrance point via the UTM Grid point to the square. The entrance will be the centre from which the old city in the direction of boulevard and bridge. The end-point will be the centre from which construction of the labyrinth-diagram starts.



541 Entrance of the labyrinth

- |                            |            |
|----------------------------|------------|
| 1 spectators entrance      | 7 stage    |
| 2 ticket-booth             | 8 arena    |
| 3 ticket control           | 9 cafe     |
| 4 office                   | 10 terras  |
| 5 performers dressing room | 11 toilets |
| 6 performers stage-entry   | 12 storage |

CORTUMIO: assessing the signs by the rules of the inaugurators's science: the proposal of a design.  
The Trealeborg-theater or Box of Miracles is a collection of different theatres within one volume, an Arena, an Amphi-theatre, a Puppet-theatre, a Projection-theatre, a Panorama-theatre and a Speakers-theatre.



542 Collection of theatres

- |                   |                       |
|-------------------|-----------------------|
| 13 puppet-theatre | 17 projection-theatre |
| 14 puppet-stage   | 18 projection-screen  |
| 15 amphitheatre   | 19 projection-stage   |
| 16 stage balcony  |                       |

VERBA CONCEPTE What could an offensive bulwark be, what an offensive fortification? A theatre? Traelleborg, Trøjborg: was the Danish labyrinth a fortification?



### 53.16 MAKING A MODEL

Making a model needs improvising creativity as well as experimental study. The curves, for instance, have been made by winding 1 mm thick plywood on pvc tubes with different diametres, while simultaneously gluing the sheets of plywood together. Obviously, curves produced that way at first do not have the exact size, because standard tubes never have exactly the right diameter; and when you cut open the winded triplex circle, after the glue has dried, you will see that the wooden arch produced veers a little back because of the tension in the wood.

This implies that you have to make each arch several times, while thickening the tube with tape, meanwhile observing how far the arch opens up after cutting, until you have produced the arch that is right for that part of the model.

### 53.17 LABYRINTH CONSTRUCTION

Constructing such a labyrinth diagram (the *conregio*) is relatively easy as long as you know how to do it.<sup>a</sup> In principle one always departs from a square with its four corners marked. These are the four endpoints of the four lines that are going to establish the labyrinth pattern. This square defined by its corner points is divided by means of a cross into four smaller equally sized squares. The centre of this cross / square is the starting point of the four lines that are going to establish the labyrinth pattern. In the case of a labyrinth of the Cretan type – one with seven tiers – one should sub-divide these four squares one more time still by means of hooks in equal distances.

Next the ‘weaving’ of the labyrinth pattern starts, by connecting one of the endpoint of the cross with the nearest point of one of the hooks (left or right), next by going to the nearest following point and connecting that in the opposite direction again with the first free point at the other side of the cross and so forth, until one has connected, by means of equally distant lines, all points. In this project the basic gauge between the lines of the labyrinth pattern was invariably 1,2 metre.

For the figure I used for the circular labyrinth, I went one step further still and replaced the cross with four quarter circles. This results in a smoother route (without straight lines) as well as in the possibility to project the entire (round) pattern this way perfectly and on real size on the ‘site’ quite simply with a couple of sticks and a piece of rope.

Opting for the circular, by the way, had to do with a complex of factors resulting from the *cortumio*, the interpretation of the ‘text’, generated by the *conspicio*, the reading of the ‘signs’. In its turn this should be seen in the light of the *legem dixit*, the playing rule that prescribed that as a programme this should become a *Boîte à Miracles*.

Le Corbusier’s *Boîte à Miracles* was a kind of multipurpose theatre, normally a large box with at one side a gigantic sliding gate, so that the actor’s space could be orientated and used in different ways (inwardly or outwardly) and directed towards different spectator areas (inside and outside).

### 53.18 THEMES

The *conspicio* provided two aspects (‘signs’) that could be connected – via etymology – one to another: the ‘boulevard’, along of which this *templum* was positioned and the view (from our so-called ‘non-place’) on one of the old bulwarks of the city at the opposite side of the boulevard.

Etymologically the concept ‘boulevard’ is derived from the medieval *bulwark*, the earthen works of defending constructed in such a way – often with their star-shaped structure of protruding elements – that all parts of the defensive works could be surveyed and that, if necessary, the attacker could be shot in his back.

<sup>a</sup> See ‘Constructie van een Labyrint’, derived from: Kern, H. (1982) *Labyrinthe, Erscheinungsformen und Deutungen 5000 Jahre Gegenwart eines Urbilds*.

The (vertical) theme was 'watching' and the programme a kind of multi-theatre where watching is revisited etymologically. We had a bulwark in which, just as in the theatre, watching plays such an important spatially shaping rôle.

In my personal surrealistic mind, added to that was a fascination for the now suddenly strange Dutch word '*schouwburg*': literally translated into English a 'fortress to watch from'; a neologism coined by our national poet Joost van den Vondel. The parallel is obvious: the theatre itself seen as on offensive.

From '*burg*', '*burcht*' and '*borrow*' it is then not far anymore to the concept 'Troy-burg', closely associated with the figure of the labyrinth<sup>a</sup>, particularly in its relation to Denmark – and Scandinavia as a whole – where there are still many traces of earthen labyrinths, and city names related to them, which are called then 'Traelleborg' or Trojborg'. With a little fantasy it does not take much to put the 'poetics' of such a *cortumio* together.

### 53.19 DESIGNING

What remains is the actual architectonic design. But, that is also not so difficult if one considers that the essence is to develop from a two-dimensional diagram a three-dimensional space with the potential to comprise a specific programme.

It is readily admitted that it takes some trying out, but in this specific case I could conclude before too long; since the figure of the labyrinth is also a very specific figure of movement inviting use in a vertical direction in order to make out of a two-dimensional diagram a three-dimensional space. By the same token, I had to introduce, via (literally and figuratively spiralling) stairs, verticality. I situated them as a form generating 'rule of the game' in the armpits of the movement around the four endpoints of the 'walls'. The 'walls' are the black lines of the pattern defining the movement, 'Ariadne's thread': they are the spatial elements restricting one's movement in one sense, but guide them in the 'right' course in the other; as such these 'walls' could also be slits.

If I ordained for the 'walls' a thickness from 30 to 40 cm, they would make for excellent seats, while leaving another 90 to 80 cm to go around and about.

This meant I got a *Boîte à Miracles*, featuring: an amphitheatre, an arena for normal theatre performances with a roofed space for the actors, amongst other applications; two small theatres in the shape of a quarter circle; one puppet theatre and a projection theatre; a panoramic theatre where one may survey the environment; and a speaker's theatre, where the speaker in a kind of pulpit (the endpoint of the route through the labyrinth) is elevated above his audience in order to address it. Under the seating area the ticket office and ticket control could be located, plus the dressing rooms for actors, sanitary facilities, a bar and a small covered terrace. Constructing the Traelleborg theatre did not cause truly big problems. Looking back at it, a design like this just seems a child's play.

a See a.o. Kern, H. (1982) *Labyrinthe, Erscheinungsformen und Deutungen 5000 Jahre Gegenwart eines Urbilds*.