

## Some Notes for a History of Meaning

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When something means something, it means that the first something stands for the second something; that A is a carrier of the content B – or that A represents B. The following notes on how meaning has been structured from antiquity to the present are made on the basis of these assumptions:

- i) A stands for B;
- ii) when i), there is a relation between A and B;
- iii) when ii), there is meaning;
- iv)  $A \neq B$ .

### Tema SEMIOTIK

#### *Aliquid stat pro aliquo*

A COMPREHENSIVE DEFINITION OF A SIGN is given by Umberto Eco who states that a sign is everything “– that can be used in order to lie”.<sup>1</sup> But; he goes on to explain that if something can not be used to tell a lie, it cannot be used to tell a truth either; in fact, he says, if something cannot be used to tell a lie, it cannot be used to tell anything at all.

The difference between *aliquid* and *aliquo* can be illustrated by a couple of children playing in a sand pit. There is plenty of room, and

plenty of spades. Still; they want to have the same spade, and sit on the same spot. To them there is no difference between spade, place and meaning. To have that spade and that place is to have the meaning – to be right. Inversely; not to have exactly that spade and not to sit on that particular spot means not to have the meaning – to be wrong. The dispute therefore becomes a matter of existential importance, of life and death to the children. At this point there are two possibilities: either they have to fight it out, or an adult will come along and introduce the difference whereby the negotiation of meaning becomes possible by representing various combinations of spades and places among the combatants.

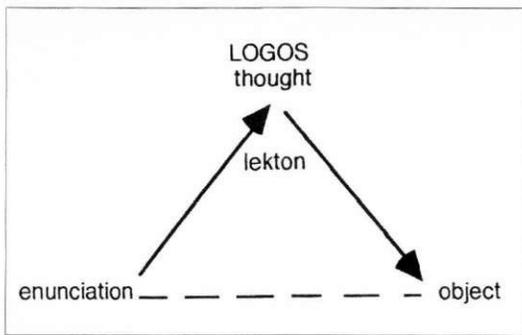


Figure 1.

As civilised grown ups we try to maintain and to cultivate this difference, and to us as scientists it “permits our hypotheses to die in our stead”.<sup>2</sup> There is hardly anything new in this. That A stands for B, is an insight as old as philosophy itself. As a matter of fact this insight is at the very core of philosophy. If A equaled B, if something did not stand for something else, then something would be just – something, and there would be nothing to know or to think. There would be no philosophy, only truth, like Nietzsche and Heidegger would have it.

The systematic and general study of the relationship between *aliquid* and *aliquo*, in other words semiotics, is however considered a relatively new discipline. Its relevance to architecture is illustrated by the example of the children in the sand pit. In building their castles in the sand, they distribute spades, places and meaning in their common world, as we do in building ours.

### Antique Beginnings

*Semeion* is the Greek term for sign. When we consider semiotics a new discipline, this is only right within the given definition as a field of knowledge. The ancient Greeks studied signs. However; they distinguished between theory of linguistic signs, and theory of signs in general – like smoke being a sign of fire and red spots on the face being a sign of measles etc. *Semeiotics* in antiquity was the discipline which today is referred to as medical diagnostics.

Pre-Aristotelian understanding of the linguistic sign is synthesised in the *Physeitheory*. Just like *Semeiotics*, the *Physeitheory* claims a direct, causal relationship between the enunciated sound, the word, and its referent. This approach was probably brought to its peak of development in the etymology of Stoic philosophy of language. The Stoicists developed a structure of signification containing the three elements known to us from our own linguistic theories of meaning: the sign, the signified and the real object.

The sign or the word was considered to be a physical entity inasmuch as it existed through the voice. Both the word and the real object it referred to, were physical entities. The link between them, the process of signification, or the emergence of meaning, was called *Lekton*, and passed through or rather, was established by the intellect. The meaning of the word and of the object were in other words both products of the human intellect. Intellect, or reason (*Logos*) was thereby considered the source of meaning, and guaranteed the link between word and object. See fig. 1.

Within this perspective the etymological project of the Stoicists is understandable. Both sign and referent are understood to be controlled by *logos*, and it is up to the same *logos* to establish the claim of a causal relationship between object and word to be true or untrue. It is easy to see, especially in hindsight, the weakness in the foundation of this theory.

### Aristotle

Aristotle reformulated the three elements of the linguistic sign. He referred to the word or enunciation as the “Voice”, *VOX*. He generalised the concept of object to signify the external, material world, *RES*. And; finally, he exchanged the human intellect for an entity more closely related to his “General Concepts”; a table of kinds, a taxonomy, which he called *SPECIES*. Furthermore he introduced a direct relationship between the word, *VOX*, and the

object, *RES*, in addition to the indirect relationship via *SPECIES*. The Aristotelian triangle (fig. 2), hence takes on a more general relevance than the construct of the Stoicists. In a certain sense it anticipates the semiotic triangle as we know it from Ch. S. Peirce.

The triangle has now become a logical structure. It interrelates not only the elements of the linguistic sign, but also the elements of phenomenal meaning in general as according to Aristotle; *FORM*, *GENERAL CONCEPT*, and *MATTER*. Furthermore Aristotle characterises the interrelations between the elements of what we now can refer to as a *Sign Structure*.

*VOX* relates to *SPECIES* by *Significatio*. This means that the auditory form which is uttered, or expressed, in the enunciation is provided with content by the *GENERAL CONCEPT*. When asked for its meaning, *VOX* points at *SPECIES*. Which content is related to which utterance, is however regulated by the interrelations of *VOX* and *SPECIES* respectively with *RES*. The relationship between the sound “horse” and the general concept, the *SPECIES* /horse/ is regulated by the actual existence of a material horse – in *RES*. The direct interrelation between *VOX* and *SPECIES*, between form and concept, is in itself conventional and therefore arbitrary.

On the other hand; *VOX* is a form, and as such it relates to *RES* like form relates to matter. The shape of a horse is the border and the result of its matter. Horse-form thus emerges from horse-matter. And inversely there is no such thing as horse-matter unless it is contained in a horse-form. There is in other words a causal relation between the two, like between smoke and fire. In the semiotic terms of Peirce, such a relation is called indexical. The interrelation between the word “horse”, *VOX*, and the object horse, *RES*, is also indexical. Aristotle calls it *Nominatio*. Form and matter, like *VOX* and *RES* are in other words singular entities.

General Concepts, on the other hand, are general. The general concept /horse/ is an emp-

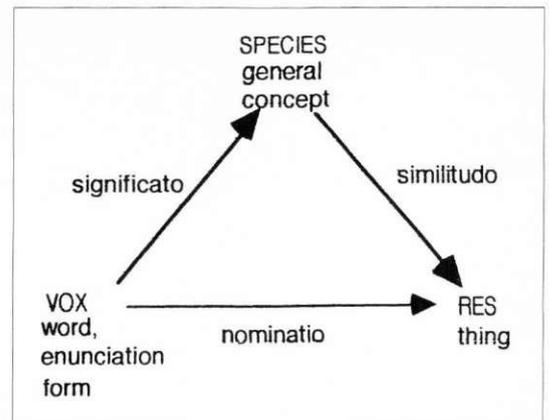


Figure 2.

ty entity inasmuch as it does not refer to any particular, real or actual horse, only to horses in general. The concept is however not completely neutral because they “resemble” their objects. Aristotle calls the interrelation between *SPECIES* and *RES* *Similitudo*. Basically the *GENERAL CONCEPTS* relate to *MATTER* according to the same principle.

*FORM* and *MATTER* are indivisible; as the examples of horse-form, horse-matter, and smoke, fire, show us. The *GENERAL CONCEPT*, however, evolves as a result of our knowledge, or as the form that our general knowledge of horses takes on. *FORM*, e.g. the horse-form, is directly connected with the particular piece of *MATTER*, e.g. the horse-matter, in question, whereas the *GENERAL CONCEPT*, the /horse/, will comprise all horses – horse in general.

Aristotle shows us a structure which reflects an integration of physics and meta-physics. The former rests in the direct *VOX*–*RES* relation, and the latter is embedded in the more complex set of *VOX*–*SPECIES*–*RES* interrelations. The relationship between an architect and his client/user can serve as an illustration. In the context of architectural production, the architect will correspond to *VOX*. He carries out, enunciates or articulates the architecture. The client/user on the other side represents content, function, economy, in short the matter, *RES*, which gives rise to, or initia-

tes the form that the architect eventually articulates. The physical relationship between the architect and his client/user, now corresponding to *nominatio*, is established by the building which is produced. However; any contract for an architectural commission presupposes a relationship between VOX and RES previous to construction; a relationship established by means of general concepts. This level of the contact is established by meta-physical means – such as e.g. *similitudo* and *significatio*. According to Aristotle in his *Metaphysics*, architecture is a special blend of such elements, and he explains the special status that this gives the architect, or “master-artist”:

Inanimate things bring about the effects of their actions by some nature, while manual workers do so through habit which results by practising. Thus, master-artists are considered wiser not in virtue of their ability to do something but in virtue of having the theory and knowing the causes.<sup>3</sup>

As can be expected, such claims were not met with unanimous consent. Jacques Le Goff reports the heated dispute between architects and stone masons during the middle ages, about which were to be considered the masters of cathedral building.<sup>4</sup> The issue of their dispute was exactly that addressed by Aristotle one and a half millennium earlier.

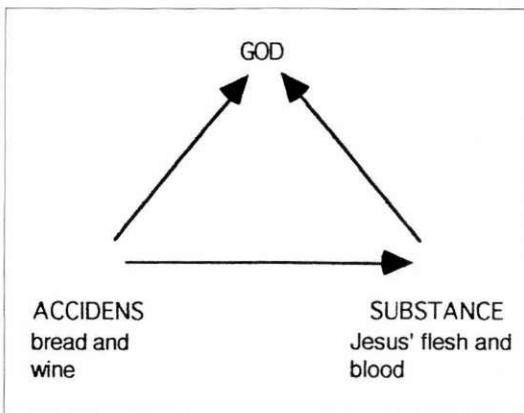


Figure 3. The Doctrine of Transsubstantiation.

### Medieval Transformations

The most important medieval re-interpretation of Aristotle’s logical structure is embedded in the doctrine of *Transsubstantiation*. When Thomas Aquinas (1225–1274) gave it the form in which we have come to know it (fig. 3), and in which it was adopted by the church as dogma in 1215. The problem of whether universals (Cf. Universal Concepts) did or did not exist had been the topic of almost two centuries of learned discussion. In short, the doctrine of Transsubstantiation claims that the bread and the wine which is offered at the Holy Communion does not represent, but is actually transformed into the flesh and blood of Christ.

Aristotle suggested a structure of meaning where *nominatio* and *significatio-similitudo* were inherent aspects of the sign. He did in other words claim that FORM, MATTER and GENERAL CONCEPT were indivisible, and that meaning as well as form and concept is basically inherent in matter. He was an absolute materialist in this sense, and in *De Interpretatione* Aristotle rejected all external determinism.

The fact that Thomas Aquinas could use the Aristotelian structure as basis for introducing GOD as an external source of meaning, was because Aristotle had been studied and slightly re-interpreted by Ptolemy and other Arabian philosophers for the ten centuries he was forgotten in Europe.

Through their reading of Aristotle’s astronomical works, the Arabs tended to understand the influence of the celestial bodies on earth as an implicit emanation of form. This logic opened the Aristotelian structure so as to insert GOD, so to speak, between FORM and MATTER, and let him replace the GENERAL CONCEPT. In this way a turn towards the Stoicist, and Platonic for that matter, conception took place. It hence became possible for St. Thomas to claim that if bread and wine tasted like bread and wine at the holy com-

munion, it was simply by coincidence. In fact, Thomas could then claim that, due to the intervention of GOD, it is Jesus' flesh and blood which is presented to us at the holy communion – incidentally in the form of bread and wine.

This corruption of Aristotle's logics resulted in the existence of two truths, which put reason under a certain pressure. On one hand there was the secular truth of bread and wine being just bread and wine. On the other hand there was the clerical truth which claimed that bread and wine not represented – but actually were – Jesus' flesh and blood. A believer was thus in a way, compelled to believe against better judgement.

This ambiguity became, as one would expect, a problem for philosophy; a problem which significant areas of philosophy are still toiling with. We would nowadays recognise this problem as "the problem of representation".

William of Ockham (1284–1349) held that "The world is only given to us once". With this dictum he erased not only SPECIES from the Aristotelian model, but he also abolished the basic semiotic categories *significatio*, the symbolic, and *similitudo*, the iconic. The maxim is rendered as "Ockham's Razor".

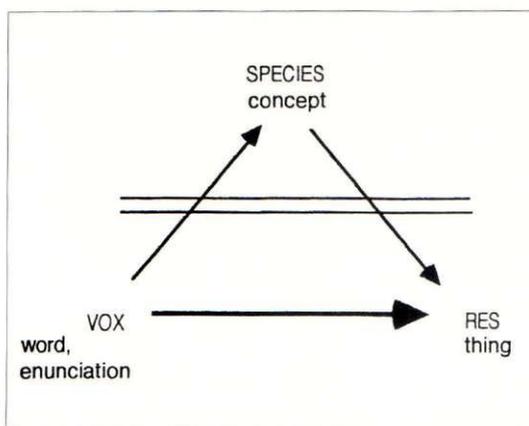


Figure 4. "Ockhams Razor". The only relation left between expression and content is now the direct, unmediated and unregulated relation between signifier and signified. This renders all meaning arbitrary.

After this operation the general sign structure passed into oblivion for a few centuries. The modern, binary, linguistic sign on the other hand is considered to be initiated at that time. This is the origin of linguistic semiotics and the initiation of nominalism.

Of course Ockham could not claim that general concepts did not exist. Without them he couldn't even have forwarded such a claim. But; he insisted that they were absolutely neutral or empty, and that they were independent of VOX and RES, of ACCIDENCES and SUBSTANCES. As a substitute for the double structure of Aquinas, Ockham introduced the idea of an inner mental language, free from psychological or other mediations. So doing, he established a binary interplay between syntagm and syntax, between VOX and SPECIES, FORM and CONCEPT. The sign bifurcates; Ockham argues: "*Signum duplicatur accipitur...*".

This is the initiation of another great philosophical problem: the double nature of the sign<sup>5</sup>, which became the germ of the division between semiotics as linguistic theory (the French tradition of the binary sign), and semiotics as logic (the pragmatist tradition after Peirce).

The external language, VOX – RES, has now been deprived of its level of reflection. It is

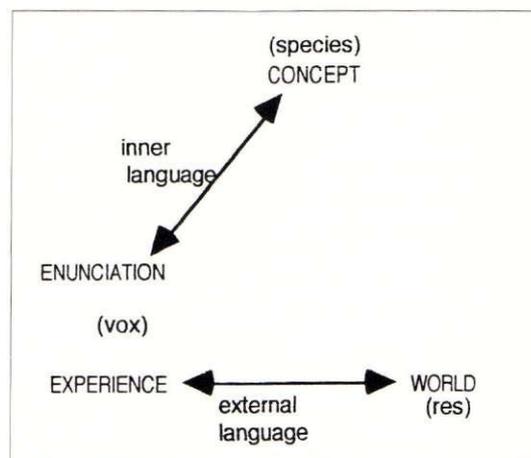


Figure 5. The double nature of the sign when interpreted according to Ockham in one inner and one external language. Both become binary.

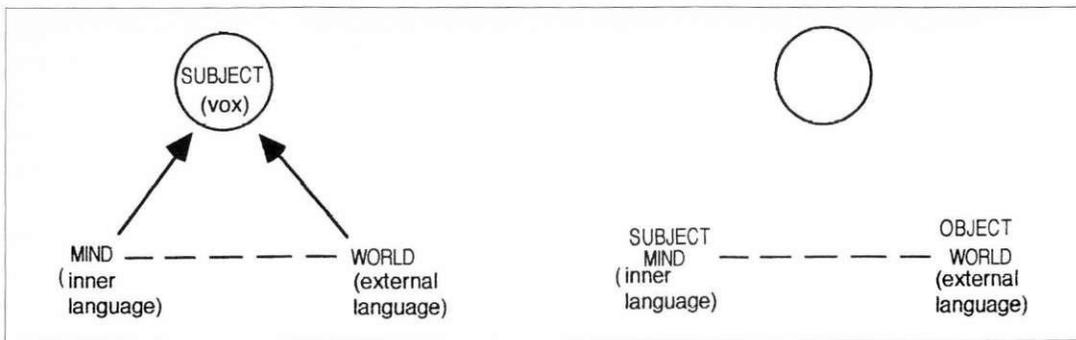


Figure 6. The Ambition (left): The inner language implodes into MIND, and the external is rendered isolated in WORLD. Descartes sets out to establish the cogitating SUBJECT as a firm ground for the relationship between the two. “Cogito ergo sum”.

The Outcome: The figure on the right illustrates the allegations against Descartes. Because of the weakness of the relationship between MIND and WORLD, MIND is merged with SUBJECT, WORLD becomes OBJECT and the structure returns to an unstable SUBJECT–OBJECT dichotomy.

struck by arbitrariness. The inner language, on the other hand, is left with only the concept and its enunciation. As this is a very weak basis for meaning, the result of Ockham’s cutting logic was that even the inner language was destabilised.

In order to remedy this problem however, Ockham introduced sentence and syntax. This made it possible to form systems of concepts that together constituted meaning. As *similitudo* – or the iconical relation between the concept and the external world of phenomena, RES – is abolished, the meaning hence constituted could however only refer to itself.

### Modern Anticipations

A benevolent reading of Descartes<sup>6</sup> would see in his work an attempt at recovering a ground for meaning after Ockham’s surgical operations. The absolute doubt is a methodological move, a rhetorical step, in which Descartes reflects the total instability of knowledge. In his “*Cogito ergo sum*” however, he sets out to install the subject as a third element of meaning. See fig. 6. It is generally assumed that Descartes did not succeed in this project. In fact he is, maybe unjustly, alleged as being mainly responsible for having driven the wedge in between subject and object, or in other terms between mind and world.

The so called Modists, such as Spinoza and Locke, took particular interest in “The Inner Language”, as differing from a philosophy of nature which would focus on the external world. They are called modists because of their special interest in the different ways that something can be; the *modi* of things – as being, as thought and as enunciated or signifying.

The *modi* as such are considered to be isomorphic. They concern VOX, SPECIES and RES alike. They are, after all, different *modi* of one and the same phenomenon.

The decisive point in our perspective is that now the level of signification (*significato*) in language could be analysed in itself, without considering its reference in RES. In this manner modism was able to study language as a *factum*. VOX and SPECIES could therefore be set as RES in their own right. On this basis the modists were able to develop an autonomous linguistic science – resting on language as *being*, as *thought* and as *enunciation* within itself.

We see in these operations a reference back to the *Physistheory* and Stoicist philosophy of language as well as a certain attachment to the medieval *Impositu Nominum*<sup>7</sup>. There are also anticipations of modern etymologies of the kind that we know from Heidegger, and from Norberg-Schulz. In hindsight we can even see

an anticipation of modern theories of autonomous syntax as developed by Hjelmslev and Chomsky. In architecture we have seen such theories experimentally adopted, for instance by Peter Eisenman in his *Houses I–IX*.

When Wittgenstein enters the scene, we are still left with the world as immediately experienced – in one hand, and in the other we hold a mental language that is a closed and self-sufficient system; in Wittgenstein’s terms a “logical image” of the world. It is important here to bear in mind that “logical image” is not an iconical phenomenon. Being “logical”, the image rather alludes to an indexical representation, which in its turn again refers back to the Stoic “Lekton”. In his early work Wittgenstein tried to account for the reference between language and world by means of a concept he called “Accurate symbolism”. In his late work he abandoned this ambition and retreated into “language games”, claiming that “The limits of my language are the limits of my world”. In the words of Derrida: “There is nothing outside the text.”<sup>8</sup>

### **A Modern Return of Semiotics**

If language does not refer to anything else than language, if A does not stand for B, what is then the meaning of meaning? Per Aage Brandt has pinpointed this problem and coined the phrase “Ontogenic trauma” to describe its consequences to modern thought<sup>9</sup>. Let us recapitulate.

In Aristotle’s arrangement, FORM and MATTER are indivisible. He even subjects the world to a *telos* – meaning that its constant process of change evolves towards an optimal form. Herein is implied an ontogenesis as good as any. We can be sure that the something of which we believe to have understood something, is real.

In Thomas Aquinas’ arrangement it is obvious how meaning and the presence of the world, RES, is provided for because he simply includes the Creator himself as a foundatory element of meaning. In this way any sign –

linguistic or general – discretely implies Genesis. It is not enunciated, but it is there in the sense that the thinker or enunciator is not obliged to question the actual existence of that which causes her experience – or her thought for that matter. On the contrary, she is obliged not to question it. In return she is free to pursue her experience or thought, in full confidence that the Lord will guarantee its realism.

We have seen how Ockham separated language from the world, and established *nominalism* – as opposed to *realism*. Consequently philosophy and theology were split. Belief and knowledge went apart, and we know the philosophical anxiety about secure knowledge that succeeded this separation.

Due to this condition the various fields of our knowledge bifurcate increasingly numerous and more specialised fields – all of which are compelled to provide their own genesis. Under these circumstances concepts can only be concepts of concepts. At this point hermeneutics is called in from theology. Knowledge can only be knowledge about itself. History can only be history of history. “Anything goes”. Eventually anything is as possible or impossible as anything else because every individual is speaking from her own point of view, from her own place, from her own universe and upon the basis of her own individual genesis.

The most frequent indications of the syndrome are the following:

- Ideas are presented and defended as if they were territories in a political and geographical sense.
- Research is carried out as if it was a mission of conquest whose booty was to be brought home unshared.
- Hypotheses become dogma which should be propagated, supported and consolidated rather than investigated.
- Critique is delivered in the form of personal offence, and perceived as an intrusion on private territory rather than an interested contribution to the illumination of a problem. This effect increases dramatically

whenever the critique originates from another discipline.

- Methodology is used as criterion of validity instead of an instrument of work. The validity of a dubious result can always be saved if one is capable of customising the accounting for one's method. In that way any critique can be repudiated on the grounds that it does not concern one's particular field of study; as if everyone studies her own private world, as if a proposition can be true in philosophy even if it is not in physics, as if it was another force that made church towers collapse in the middle ages than in the baroque.

In a world where ontopathy<sup>10</sup> spreads as oil spills on water, where knowledge is hermeneutically organised in emancipated and self-referring systems, meaning and being reappear as problems. One is again urged to ask for an ontological basis for syntax, for the hidden structures or forms of daily life.

“Autonomous syntax” can be understood as syntax in a general sense, beyond language. We know it from the term *structur-alism*, but then as a de-ontological entity. In an attempt to establish a new rational paradigm we see advances towards the establishment of ontological foundations for these structures. The efforts are multidisciplinary. They are based on the assumption that there are not  $x$  number of worlds, but one – which is common to all fields of knowledge, and that this one world “– should be understood in such a way that it is not absurd to think that it may have produced us”.<sup>11</sup> This is a break with traditional modernist views. It is not only a break with the modernist conception of language, but also with the kind of logic which produced the understanding of language as “a logical image of the world.” This structural turn is a turn towards a neo-Aristotelian understanding of the world which reaches far beyond the realm of linguistic sciences.

A traditional modernist position has not only proven incapable of explaining why or

how language does in fact function quite well in relation to the world, but it even seems to imply some kind of theological belief that this relation *should* not be explained. It is as if modernist thinkers nurture a deep anxiety that an eventual explanation of this kind would destabilise the entire cartography of knowledge – which is in fact quite likely that it would. Such an explanation is consequently rejected as if by ideological reflex.

We could imagine that such a reflex is developed as a consequence of the ontogenic labour that man had to take on after he had abolished God. After all; as a logical consequence man had to take on the role of being his own creator, and it is maybe understandable that he anxiously resists any attempt at explaining or even describing this extraordinary phenomenon. Anti-logocentrism, anti-rationalism, deconstructivism etc. – the examples are abundant.

If language, or thought, did after all turn out to be explainable, or even describable, this might compel us to reconsider the modern conception of freedom. A possible consequence of this is a revocation of the question of what man is. One might be led to question one's privileged role in Creation – as a human being. One might eventually wind up as a specimen among other species, and even having to share intelligence, consciousness and – who knows – will with other kinds of beings.

Modern thought apparently finds itself facing a situation where it is necessary to issue a certain *denkverbod*<sup>12</sup> in order to protect the free human will against illegitimate knowledge – like in the middle ages – or to accept a reconsideration of the human condition.

### **The Current State of Affairs**

I have run briefly through some important events on our way from the middle ages down to our contemporary late-modern position. Let me now – with belated wisdom – summarise some of the forms semiotics took on when it re-emerged after five centuries of darkness

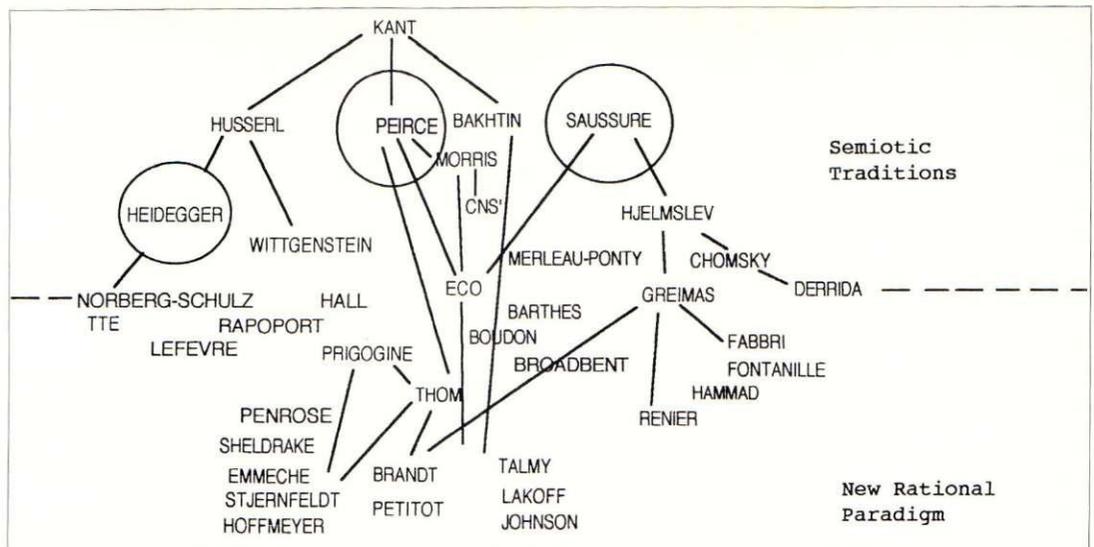


Figure 7.

and Enlightenment, before I end these notes with an outline of the most central semiotic constructions, sign structures, that are currently at hand.

### A Cartography of Signification

Kant set knowledge as a product of the human mind. He held it impossible to apprehend the world directly, without mediation, as Ockham demanded. The world had to be brought to us, but he did not leave apprehension exclusively in the care of subjective perception. He introduced the a priori given truths as an underlying structure upon which human reason could rest.

These structures are reflected in various versions in the semiotics which succeeded Kant. Common to all of them however, is the subject – object problem in one form or another.

Basically we can distinguish three traditions in modern semiotics – even if one of them is rather anti-semiotic. All are, however, concerned with meaning, and must therefore accept being considered as semiotics. To briefly outline these three:

#### i) The Binary Sign

Ferdinand de Saussure (1857–1913) is considered the founder of modern linguistics, and of

French semiotics – often referred to as *semiology*. He is the one who most explicitly took up a nominalist position – with all it implied.

Saussure took little interest in the world outside language; even though he did touch on the problem of reference, his sign relation remained basically the relationship between the signifier (Sa) – or the linguistic expression – and the signified (Sé) or the linguistic content. This sign became an arbitrary one. It provided a very weak and unstable relation between expression and content. On the other hand it opened vertiginous possibilities of intra linguistic analysis. It is hard to imagine the Linguistic Turn and the textual strategies of Derrida without Saussure.

In the architectural field, interest in semiotics in the seventies concerned semiotics of this origin, but due to its linguistic nature it was not very useful. Indirectly in the form of textual strategies and deconstruction, however, the binary sign structure has had an immense impact upon architecture. With respect to knowledge the effect was strongly negative. It was even used as some kind of academic legitimation for theoretical ignorance. On the other hand quite a few interesting methodologies such as various kinds of “readings”, “mappings” and “layerings” were developed in its wake.

The so called “Paris School” headed by Algirdas Greimas, and later by Jean Petitot, has taken up bits and pieces of this tradition, elaborating and cross-breading them with other traditions during the last 30 years. Greimas developed a new generation of the binary sign by combining it with the classical “Logical Square”. The resulting model, the Greimasean structuralist sign structure, is called *Le Carré Sémiotique*, the semiotic quadrangle. See fig. 8.

Even if this structure is more formally sophisticated, it repeats the problem that the binary sign had in its relation to matter, to the world outside the text. As such the Greimasean efforts can be seen as a continuation of the work of the modists.

A comparison of Ockham’s nominalist conception of the languages to Saussurean and Greimasean sign structures would go like this:

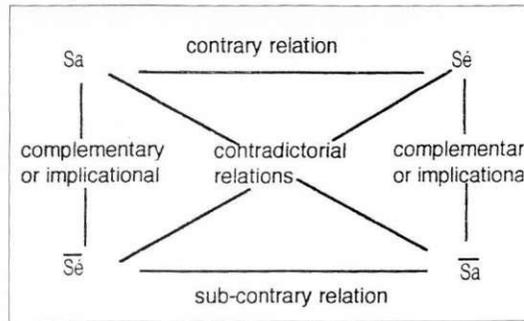


Figure 8. Le Carré Sémiotique.

Contrary relation is a relation of opposites; like (black: white) – to which the corresponding subcontrary relation would be (not-black: not-white). (black: not-black) would be a contradictorial relation, and (black: not-white) is a complementary one.

In Saussurean terms the external and the inner languages according to Ockham are both binary sign structures with one expression-side and one content-side, one signifier and one signified. Analysed respectively as contrary and sub-contrary terms, the analysis renders them contradicting each other. A contradictorial relation between concept and experience, between external and inner language provides a feeble ground for realistic meaning.

The other possibility of draping Ockham on Greimas is to consider the inner language as a signifier for the external language, in other words to consider ENUNCIATION a signifier for EXPERIENCE and CONCEPT as a signifier for WORLD. See fig. 10.

Now the two languages appear as contraries to each other, which may seem to be a reasonable relationship between them. However; the price is the internal structure of each language. The distinction between expression and content within the languages is lost. CONCEPT is reduced to an implication of ENUNCIATION, and WORLD is but a complement of EXPERIENCE. As a matter of fact this analysis reflects the antique *Physistheory*, as well as its modern successors. One might adopt Heidegger’s dicta “*Die Sprache spricht*” (the language speaks) and “*Das Ding dingt*” (the thing things) as expressions of inner and external language respectively.

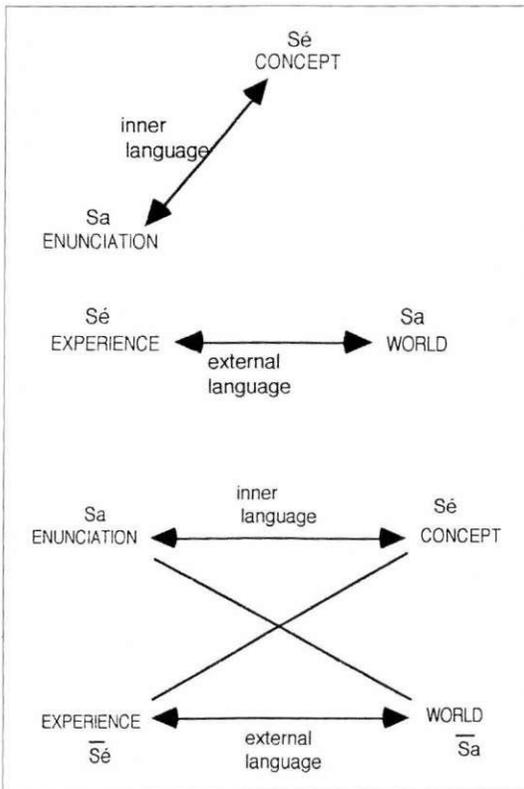


Figure 9. The top figure is Ockham’s inner and external languages arranged as Saussurean signs. The fig. underneath shows how the languages are distributed on the Carré Semiotique according to Greimas.

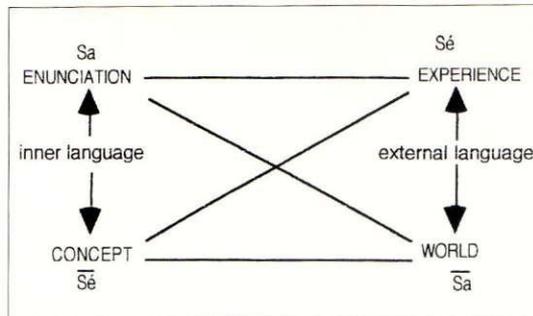
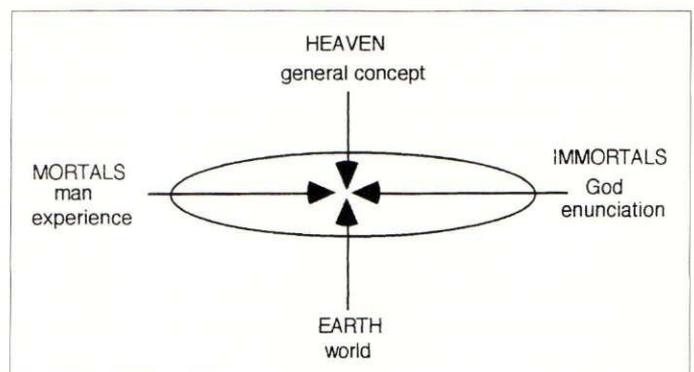


Figure 10.

ii) *The Anti-Sign*

If Saussure can be seen as one of Derrida's grandfathers, Heidegger could be considered to be the other. When I call Heidegger in at this point however, it is due to an other heir of his; Christian Norberg-Schulz. In his first book, *Intentions in Architecture*, he set out to analyse architecture as a manifestation of man's relation to the world around him. Norberg-Schulz established a semiotic structure intended to construe architecture in terms of concept, of actual physical presence and of the user's perception of the two. However; he did not quite succeed in establishing the strong concept – world relationship he had set out for. For some strange reason he apparently did not read Peirce at the time when grappling with these problems. If he had done so, he would have found Peirce's INTERPRETANT. From there on he might have been able to develop his work according to its initial agenda. This is strange because at the time he was working at the MIT, and he had supposedly good contact with people, like for instance Charles Morris, who definitely was familiar with the works of Peirce. For whatever reason, Norberg-Schulz apparently put his semiotic agenda aside and turned to Heidegger instead.<sup>13</sup>

Figure 11. Das Gevierte, the Quadrant, after Heidegger in "Bauen, Wohnen, Denken". In capitals are Heidegger's terms, in minuscules are the additions of the author.



Norberg-Schulz located the problem of meaning to the question of centre, which he later smoothly merged with the concept of place. He called upon Archimedes misquoting him thus: "Give me a place to stand and I will move the world."<sup>14</sup> As with a stroke of magic Archimedes' lever was gone, and science with it. In Norberg-Schulz' corrupted quotation the topic is switched from a discussion of the possibilities and limitations of science to a direct and unmediated manipulation of the world. Archimedes is reduced from scientist to muscleman.

Meaning is given a geographical being-in-the-world, it is turned into mute earth. The sign structure has imploded, and meaning territorialised. What would Norberg-Schulz's Archimedes do if someone was already standing on his place?

iii) *The Dynamic Sign*

With Charles Sanders Peirce (1839–1914) the triangular sign structure reappears, but now as a general logical structure. Peirce is thoroughly presented elsewhere in this issue, so I will make this outline very brief.

Peirce actually merges phenomenology with logics and semiotics. As a matter of fact he often refers to his semiotics as *Phaneroscopy*, which is Greek and means something like "observation of phenomena". He gives numerous definitions and elaborations of his sign relation and its elements throughout his very extensive authorship, but one of the shortest and most comprehensive definitions is quoted from

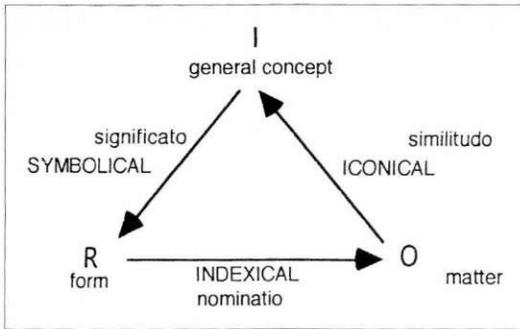


Figure 12. The Sign Relation according to Peirce. Text in capitals is Peirce's own concepts, in minuscules are cross references added by the author.

his text "Logic as Semiotic" (printed elsewhere in this issue): "A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity." His sign relation is composed of the following three basic elements: The Representamen /R/ or the sign, the Object /O/ and the Interpretant /I/. The first element /R/, stands for that which is immediately experienced when one is exposed to something – "*aliquid*". The second element /O/ is the actual object which is the cause of the first experience – "*aliquo*". The third element /I/ is a device of a sophisticated structural nature which enables us to relate *aliquid* with *aliquo*. So far it may look like several previous sign relations, only now the third element is not GOD or the SUBJECT, but a an abstract structural device. The important difference is however, that unlike GOD, SUBJECT or MATTER, the INTERPRETANT is not a source of meaning, but a dynamic force in the production of meaning. Consequently the vectors of the sign relation all point the same way. They do not meet at a source. (See fig. 12, and compare to figures 1–6.)

Finally, and in coherence with his dynamic conception of meaning, Peirce includes the perceiving subject in meaning, and introduces habit, belief and pragmatics in the inventory of scientific investigation.

I would not dare calling René Thom an heir to Peirce, although they both belong under the dynamic sign. Just like Catastrophe Theory

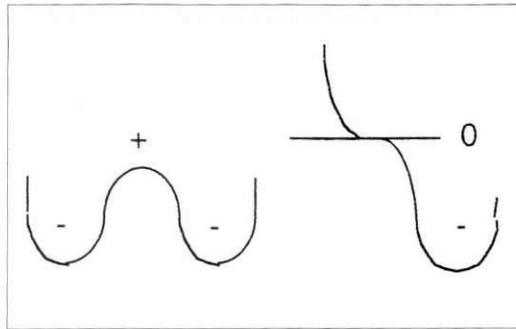


Figure 13. Left: two stable conditions (-), with one unstable (+) in the middle. Right: the threshold value.

(CT) itself is being accused of committing scientific imperialism, it might be considered to be such imperialism, or at least taxonomic imprecision, to include CT among semiotic approaches. However; in the same way a contemporary semiotic must account for time and real-world phenomena in order to be in coherence with contemporary real-world knowledge, it must include a spatio-temporal phenomenology in its repertory.

Traditional science only takes interest in a phenomenon when it is already there, whereas the particular interest of Catastrophe Theory is how discontinuity arises from continuity, how a flow of amorph MATTER can generate form and become phenomena.

The name "Catastrophe Theory" is misleading. René Thom developed the theory to the background of his mathematical studies in topology during the nineteen fifties.

Stable conditions acting as attractors and unstable conditions acting as repulsors were familiar to topology. Thom however, took a particular interest in the o-values, or the threshold-values were the condition lapsed from + to -. (See fig. 13). At that time he called his theory "*Cobordisme*", co-bord-isme. The "-bord-" does not refer to border, but to edge; to the edge between one condition and another irrespective of the whether the conditions in question unfold in ontology or deontology or from CONCEPT to MATTER or – from concept to building.<sup>15</sup>

The edge re-evokes the Aristotelian concept of FORM; as indivisible from its matter. Thom furthermore includes the temporal dimension of any phenomenon. This is illustrated in figure 14 which shows the so-called “Phase Space” of water, including the three conditions of H<sub>2</sub>O: as steam, fluid and ice, as well as the thresholds between these conditions.

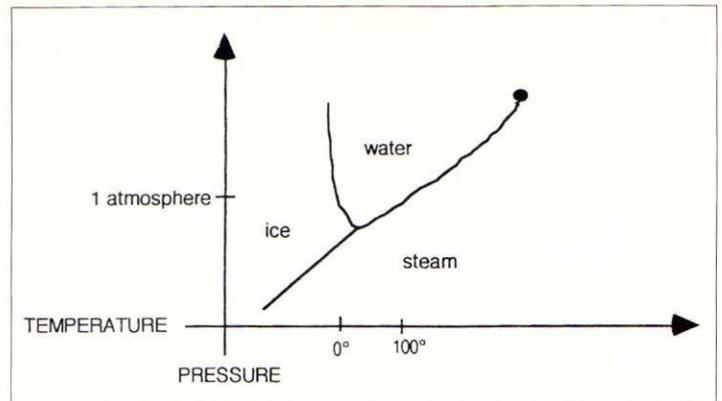


Figure 14. The Phase Space of water.

Thom set out with the notion that singularities, or discontinuities, in other words FORM, occurs whenever a homogeneous, continuous (time-)space is exposed to confinement or outer pressure of any kind. Then MATTER will fold, and generate a phenomenon. Abstract, but basic. What CT does according to Thom, is to visualise, describe, and in some cases even explain morphogenetic processes as spatio-temporal phenomena – on a general level. What CT does not do is to predict individual cases. CT deals with qualitative changes, but it does not quantify them.

### Finally; Architecture

Therefore the artist (architect) must know the theory and master the skill.  
(Vitruvius on the education of an architect.)

Coining the phrase “Semiosphere”<sup>16</sup> Jesper Hoffmeyer brings the Aristotelian concept of FORM to its logical conclusion. He suggests that meaning seems to be the basic unit of nature. In order to understand real-world, nature, we must understand it in terms of signification, like DNA etc. On the basis of this claim he sets out to study our history as a natural history of the sign: – how does FORM arise from MATTER? – why is the world not a homogenous flow of microscopic particles?

A piece of architecture, even the simplest one-family house, is only intelligible as a space-

time entity extending from concept to memory, via design, construction, use and decay. What is then the nature of architecture if it does not comprise of physics and metaphysics alike, or better: what is the nature of architecture if it is not the ontological protoplasm from which both physics and metaphysics are derived? I guess we need to develop some solid theory of meaning to handle such a plasma.

### Notes

1. Umberto Eco, *A Theory of Semiotics*, Indiana University Press, Bloomington 1979. Pp. 58, 59. See also “Sémiotique générale et philosophie de langage”, *Critique* nr 452–453, 1985. Published in Danish in *Almen Semiotik* 1, 1990.
2. Karl Popper as quoted by William H. Calvin in *Scientific American*, Oct. 1994, p. 83.
3. Aristotle’s *Metaphysics*, 981b5.
4. Jaques Le Goff elaborates on this in his *De cultuur van middeleeuws Europa (The Culture of Middle Age Europe)*, p. 273. He mentions in particular the confrontation between the French architect and the Lombardian stone masons at the construction of the cathedral of Milan at the end of the fourteenth century. The architect claimed that there was no building technique without science, and the stone masons claimed that there was no science without technique.

5. Cf. *Logische Untersuchungen I*, Edmund Husserl.
6. E.g. Jean-François Bordron, 1990 & 1991.
7. A theological principle meaning a “primordial naming” of which the bible guarantees the authenticity of the meaning.
8. “Il n’y a pas de hors-texte”, *De la Grammatologie*, Jacques Derrida, Paris 1967.
9. Per Aage Brandt, 1991. P. 61 ff.
10. Ibid.
11. Prigogine and Stengers in *La Nouvelle Alliance*, 1979, here quoted from the Danish edition *Den nye pagt mellem mennesket og universet*, Forlaget Ask, Aarhus 1985, p. 364.
12. Prohibition of thought.
13. Neither Heidegger nor Peirce are mentioned anywhere in “Intentions ...”.
14. Norberg-Schulz 1971, p. 19.  
In the essay “The Concept of Place” from 1969 (published for the first time in Italian in *Controspazio* no. 1, 1969, later in English in *Architecture, Meaning and Place*, New York 1988) Norberg-Schulz was still working with /Place/ as a conceptual entity roughly equivalent to /Centre/. That was the first time he quoted Archimedes, but then he quoted him correctly. It was only two years later, in 1971, when he turned /place/ into a material, physical entity, that Norberg-Schulz deprived Archimedes of his intellectual capacities.
15. The lapse from concept to building is of course a point of particular interest to architects. For an elaboration of this point, and for a further introduction to CT, see “The Effect of Butterfly upon an Opus of Architecture – A Catastrophe Theoretical perspective on Design Theory” by Ole Møystad, *Nordic Journal of Architectural Research* No 4, 1993.
16. Jesper Hoffmeyer 1993.

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*To my colleagues at the AUB in gratitude for the difference they offered me from Western thought while writing these notes.*

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