Phenomenology and neuroscience in the awareness and perception of the form and *informe* of sculpture; as exemplified in the work of Robert Morris, Anthony Caro, Tony Cragg and Jim Lambie

John Corfield

Dissertation for BA Fine Art Degree
University College for the Creative Arts
Canterbury

April 2006

Supervisor: Mary-Lou Barratt

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Introduction

"No great artist ever sees things as they really are.
If he did he would cease to be an artist." - Oscar Wilde

"Art is a lie that makes us realize truth." - Pablo Picasso

This essay brings together some ideas that relate to the consciousness of being in the presence of sculpture. Whilst these include established areas of phenomenology and its interest in awareness there are, as we shall see, many developments in neuroscience that are relevant to the perception of sculpture. For sculpture, its perception and awareness principally involves the concepts of form and materiality. These topics will dealt with in some depth.

Whilst much has been written on phenomenology in regard to painting (Merleau-Ponty 1945), much less has been written about it in respect of sculpture. The situation is even more extreme in the case of neuroscience. In so far as neuroscience has looked at art, for example in Vilayanur Ramachandran's (Ramachandran 1999) and Semir Zeki's (Zeki 1999) work, this has been directed at, in the former's case, representational art including Hindu sculpture and in the latter principally at abstract painting. This rather conservative approach does not do justice to contemporary art and sculpture which will be the main area to be considered in this essay.

This essay can only be a cursory overview of a number of components that need to be considered when thinking about the perception and awareness of sculpture; it does not pretend to be comprehensive nor exhaustive on the subject, rather taking up specific perspectives regarding particular forms of sculpture.

Michael Fried's essay on Anthony Caro's early abstract sculpture, is taken as a starting point as it is one of the earliest discussions of sculpture in terms phenomenology, especially that of the work of Maurice Merleau-Ponty. Next some developments from modern neuroscience will be considered, to highlight the limitations of our perceptual capabilities; how seeing is an intellectual activity and what that means in terms of conceptions of reality. This will then lead into a consideration of what is meant by 'form' and *'informe'*, starting with the writings of George Bataille and including the ideas of Morris on sculptural form. Finally some of Tony Cragg's and Jim Lambie's sculpture will be considered in the light of the ideas brought together in this essay.

Phenomenology of awareness

Michael Fried's seminal essay on the sculpture of Anthony Caro will be taken as a starting point in looking at some aspects of phenomenology and what it has to contribute to the awareness of being in the presence of sculpture.

Figure 1: Anthony Caro, Early One Morning, 1962. Steel and aluminium, painted red, 289 x 619 x 335cm, Tate Gallery, London

In the catalogue to the exhibition of Caro's early work at the Whitechapel Gallery in 1963, Michael Fried wrote:

> "The purpose of this introduction is to put forward a way of looking at Anthony Caro's sculptures .. I want to suggest that our situation, or predicament, in the face of the present exhibition is roughly analogous to that of a small child, at most on the verge of speech, in the company of adults conversing among themselves. It is often clear enough, in such circumstances, that the child grasps something of what is going on around it - much as we ourselves may be moved by Caro's sculptures. Here the question arises, to what does the child respond, if it is still ignorant of the meaning of individual words? And the answer must be, to the abstract configurations in time made by the spoken words as they are joined to one another, and to the gestures, both of voice and body, that accompany, or better still, inhabit them. To the child the language he hears spoken around him is both abstract and gestural, here is the crux and the high-water mark of

> our analogy. Whatever eloquence, whatever capacity to move or excite him, or merely to command his attention, the language may possess resides solely in its character as configuration. But at this point our analogy starts to break down." (Fried 1963)

Fried is here talking about the limitations of the brain of the viewer or rather the extent of learning and of experience determining the response to the work. It also can be seen as an attempt to describe what may be indescribable; that is the human response to abstract elements in works of art. Whilst clearly there is an intellectual response there is also commonly an emotional one. Parallels with the appreciation of music, an essentially abstract form, can be drawn. It is here that words fail and that any attempt to use them to describe the experience, in moving the focus of attention to the intellect, causes the essence of the experience to slip away. The experience is not expressible in terms of words and another 'language' or non-language has to be invoked. However a number of elements and factors are implicit in the appreciation of art and it is some of these as they might affect our response to sculpture that this essay addresses.

Fried's description of Caro's sculpture refers directly back to the writings of Maurice Merleau-Ponty. Fried talks of the many elements in looking at sculpture – including internal relationships, presence, materiality, colour. Caro's work has been described as being like painting in the importance of the internal relationships between its elements. It is this that Fried picks up on and draws on Merleau-Ponty's writing as for instance in his *Cézanne's Doubt (*Merleau-Ponty 1945a). Fried makes repeated references to the writings of Merleau-Ponty (Merleau-Ponty 1945, 1945a) and he is clearly influenced by Merleau-Ponty's work on phenomenology. It is to this work

we now turn, tracing Fried's descriptive terms back to Merleau-Ponty's seminal description of painting in his work on phenomenology.

Figure 2: Anthony Caro, Midday, 1964. Museum of Modern Art, New York

In his internet article for the Stanford Encyclopedia of Philosophy, David Smith defines phenomenology as:

> "Literally .. the study of 'phenomena': appearances of things, or things as they appear in our experience, or the ways we experience things, thus the meanings things have in our experience." (Smith, 2005)

Using writing on painting for an essay on sculpture has some justification, for as Merleau-Ponty wrote in his essay *Eye and Mind (*Merleau-Ponty 1964)*:*

> "Anyone who thinks about the matter finds it astonishing that very often a good painter can also make good drawings or good sculpture.. Since neither the means of expression nor the creative gestures are comparable, this fact [of competence in several media] is proof that there is a system of equivalences, a Logos of lines, lighting, of colours, of reliefs, of masses – a conceptless presentation of universal Being."
>
> (Harrison p753)

In other words painting and sculpture do have much in common.

In his essay on Caro, Fried built on what Merleau-Ponty wrote in his 1945 essay *Cézanne's Doubt:*

> "[The artist] speaks as the first man spoke and paints as if no one had ever painted before. What he expresses cannot, therefore, be the translation of a clearly defined thought, since such clear thoughts are those that have already been said within ourselves or by others. "Conception" cannot precede "execution." Before expression, there is nothing but a vague fever, and only the work itself, completed and understood, will prove that there was *something* rather than *nothing* to be found there." (Baldwin 2002 p282)

Whilst Merleau-Ponty talks about the creation of the work, there are parallels to the viewing of the work. He talks about the perceived world and the real or what he calls the scientific world:

> "Cézanne .. did not want to separate the stable things which we see and the shifting way in which they appear. He wanted to depict matter as it takes on form, the birth of order through spontaneous organization. He makes a basic distinction not between "the senses" and "the understanding" but rather between the spontaneous organization of the things we perceive and the human organization of ideas and sciences." (*ibid* p277)

Merleau-Ponty was here highlighting Cézanne's appreciation of the difference between appearance and reality. He continued:

> "Cézanne .. wanted to put intelligence, ideas, sciences, perspective, and tradition back in touch with the world of nature which they were intended to comprehend. He wished, as he said, to confront the sciences with the nature "from which they came." By remaining faithful to the phenomena in his investigations of perspective, Cézanne discovered what recent psychologists have come to formulate: the lived perspective, that which we actually perceive, is not a geometric or photographic one. The objects we see close at hand appear smaller, those far away seem larger than they do in a photograph." (ibid p277)

Here Merleau-Ponty stressed Cézanne's wish to bring together our various modes of experience of reality from where ever it arises; he brought out the ideas that we interpret what we see and that that is not the same as the external world as it really is.

Martin Jay expands on this point in his *Sartre, Merleau-Ponty, and the Search for a New Ontology of Vision:*

> "The Structure of Behaviour began with an account of the distinction between the scientific experience of light, what he called 'real light', and the qualitative experience of light, which he termed 'phenomenal light'. .. Science .. grew out of natural perception, rather than being its antithesis or corrective. Thus the seeming inconsistency between the two notions of light did not mean that vision was self-contradictory and even in some sense "irrational", but rather that subjective visual experience and its scientific re-description were ultimately part of the same order of signification." (Jay 1993 p163)

In *Eye and Mind,* Merleau-Ponty explored the sensation that when we look at an object we feel it looking back at us, we have a sense of being in the presence of the object:

> "The enigma is that my body simultaneously sees and is seen. That which looks at all things can also look at itself and recognise, in what it sees, the "other side" of its power of looking. It sees itself seeing." (Baldwin 2002 p294)

Merleau-Ponty described the sensation of self-consciousness in the presence of the world around us.

> "Visible and mobile, my body is a thing among things; it is caught in the fabric of the world, and its cohesion is that of a thing. But because it moves itself and sees, it holds things in a circle around itself. Things are an annex or prolongation of itself; the world is made of the same stuff as the body." (*ibid* p296)

Merleau-Ponty talks here in terms very like those of Heidegger's notion of 'being-in-the world' (Heidegger, 1962). He went on:

> "To see is to have at a distance" (*ibid* p297)

This is the sense of being able to be in the presence of an distant object, without having to be able to touch it:

> " .. many painters have said that things look at them .. it becomes impossible to distinguish between what sees and what is seen, what paints and what is painted." (*ibid* p299)

Figure 3: Donald Judd, Untitled, 1963. Oil and plywood with iron pipe 56x115x77cm. Hirshhorn Museum, Washington, DC

This self-consciousness generates a sense of mutual awareness, a kind of pas-de-deux. According to this perspective, sculpture is always a performance between the work and the viewer moving around it. It was in his criticism of Minimalism that Fried railed against the theatrical element of Donald Judd (Figure 3) and Robert Morris's objects (Figure 9).

This discussion of some aspects of phenomenology has suggested that sculpture may be in a language just

beyond our grasp, that it has its own presence and reinforces our own sense of being, that we may not see it in its reality but only as we imagine it to be.

Neuroscience's increased understanding of the brain may be a route to an integration of mind and brain – once we are aware of what our brains do, we might come closer to understanding how we can have our mental images and consciousness. It is to a consideration of some aspects of contemporary neuroscience that we now turn.

Neuroscience of perception

Neurosciences' understanding of the brain is evolving and it is arguable that we need constantly to inform ourselves of these developments if we are to best appreciate what we see about us.

We have an amazing facility to attribute constancy of colour and form to objects despite variations in viewing position, lighting and orientation, motion, defective eyesight etc.

Figure 4: *Untitled* (Preece 1994)

At best we construct a model of the world in our heads, more likely we create the impression of a (largely unverified) world. We act as if the world out there is the same self-consistent internal reality we imagine/construct for ourselves.

We are heavily constrained by our sensory limitations in terms of what we cannot sense eg ultra violet, forms not seen before, transient events, the unexpected, the distressing.

We can only see a tiny part of the field of view in any detail, all the rest is provided from memory or imagined / completed by guess work. Optical illusions show many of our limitations. In Figure 4 there is not a single outline yet we sooner or later form a distinct image of a dog in a 3D space.

The brain has to be seen as a meaning machine; it has evolved to recognise forms which enable us to survive. It takes the scene in front of it and turns it in to a meaningful model of the world in all the aspects that are important to it.

In their entry, *Visual Form Perception* in the *Encyclopedia of Neuroscience*, Tse and Hughes (2004) described the current understanding of the perception of form:

> "In the absence of any apparent effort, the human visual system recovers the 3 dimensional form of the visible environment from inherently ambiguous 2 dimensional retinal images. How this feat is accomplished is perhaps the most fundamental problem faced by vision science. Despite the impression that vision seems effortless, a vast amount of processing is involved in the construction of an internal representation of the visible scene. The central computational problem is one of correctly and rapidly interpreting inherently ambiguous patterns of retinal activation. Moreover, in order for it to guide navigation and all other interactions with the physical world, these massive computations must be accomplished very quickly. The retinal image does not directly specify the absolute or relative distances of visible objects, the orientations of their component surfaces, their surface color or whether they are stationary or in motion. Countless possible 3D worlds

> could have produced the light that enters our eyes and creates a specific retinal image." (Tse and Hughes 2004)

The authors describe the amazing feats that the brain undertakes without any conscious effort. At the end of this entry they summarised by saying:

> ".. we have traversed the visual system from the level of initial extraction or detection of image primitives, to the stage where those primitives can be used as the input to complex algorithms that compute surface shape and layout. .. We still do not understand how information is processed by neurons in a deep sense, and we certainly do not grasp how complex computations, such as those that presumably underlie Gestalt grouping procedures, are realized in the information processing of extended neuronal circuits. At a more abstract level of analysis, we do not understand the nature of the computations that generate veridical representations of shape within a fraction of a second, permitting matches to memory (recognition) and motoric behavior in response to the visual environment. Although much is already known, much more work needs to be done before we can say that we have even a basic understanding of how form is processed and represented in the nervous system." (*ibid*)

Impressive though the progress made in neuroscience is, it is clear from this article that we have a great deal more to learn before we can begin to understand these neural processes in any depth.

Semir Zeki has applied his research in neuroscience to art, by which he means painting, but his observations do have relevance to sculpture. In *Art and Brain* he wrote:

> "The brain .. has to extract constant features in order to be able to be able to obtain knowledge about them and to categorise them. Vision, in brief, is an active process depending as much upon the operations of the brain as upon the external, physical, environment; the brain must discount much of the information reaching it, select from that information only that which is necessary for it to be able to obtain knowledge

about the visual world and compare selected information with its stored record of all that it has seen." (Zeki 1994 p2)

Thus the brain is very selective in what information it uses and thus to how much of the real world it allows us to access. Zeki went on to explain how the information is then analysed:

> "Recent evidence has shown that the processing systems are also perceptual systems in that activity in each can result in a percept without reference to the other systems; each processing-perceptual system terminates its perceptual task and reaches its perceptual end-point at a slightly different time from the others, thus leading to a perceptual asynchrony in vision - colour is seen before form which is seen before motion, the advantage of colour over motion being of the order of 60-100 ms. Thus visual perception is also modular. In summary, the visual brain is characterized by a set of parallel processing perceptual systems and a temporal hierarchy in visual perception." (*ibid* p3)

It is clear that the brain deconstructs the retinal image into component parts:

> "A good many hold the common but erroneous belief that we see with the eye rather than with the cerebral cortex." (*ibid* p4)

Here Zeki stated that it is the cerebral cortex that does the looking though he made no explanation of what that could mean if the image is not reconstructed.

He later identified the important feature about form that " .. forms do not have an existence without a brain." He went on:

> "Studies have shown that individuals who are born blind and to whom vision is later restored find it very difficult, if not impossible, to learn to see even a few forms and these they soon forget." (*ibid* p6)

Zeki here highlighted the evidence that shows that we learn to see through the early experiences of seeing.

> "Artists have often wished that they could see and paint the world as a child does, for the first time, innocently, without what they suppose to be the prejudice of the developed and possibly even corrupted influence of a brain that has knowledge of the world…Picasso admired the work of children .. Monet wished he had been born blind, with vision restored to him later in life so that he could see pure form without knowing what the objects were that he saw before him. They are all yearning for something that is impossible. The visual apprenticeship of children occurs at a very early age, before two, and begins immediately after birth, long before the motor apparatus has developed sufficiently to be able to execute a painting." (*ibid* p6)

Here is an example of how ignorance by non-scientists leads them to erroneous conclusions. Whilst the aspiration to draw with an innocent eye might appear desirable, it is clear that these great artists did not appreciate that 'innocence' is a stage on the way to be able to see at all.

Zeki took this point further:

> ".. we can only categorise objects that we have already seen and of which we therefore have a general representation…" (*ibid* p7)

Neuroscience informs us that we can never see with an innocent eye and that we can only see what we have already learnt to see. We tend automatically to see a collection of material substance as an 'object' and to which we give a name such as 'table', yet it can take so many different forms, use so many materials and still be a 'table'.

This ability to categorise objects or give them 'form' is a remarkable feat:

> " .. objects are viewed at different distances, from different angles and in different lighting conditions; yet they maintain their identity." (*ibid* p9)

It is hard for us to see objects as they really are, because once we recognise them, we categorise them and see them principally as constant, irrespective of the situation they are in.

Zeki went on to suggest the rudiments involved in the identification of 'forms':

> "One group of cells .. will only respond to lines of particular orientation, the orientation preferences of different cells being different and each responding more grudgingly as one departs from the preferred orientation. Such cells are .. usually considered to be the physiological 'building blocks' of form perception, though how one moves from such cells to the creation of forms remains unknown." (*ibid* p12)

Despite all the endeavours of neuroscience we have no explanation of how we get from identification of crude features to the diversity of forms that we are able to distinguish.

Zeki then introduced his interest in painting:

> "This emphasis on line in many of the more modern and abstract works of art does not, in all probability, derive from a profound knowledge of geometry but simply from the experimentation of artists to reduce the complex forms into their essentials or, to put it in neurological terms, to try and find out what the essence of form as represented in the brain may be." (*ibid* p13)

Thus we conclude that in moving from the image on the retina to imagining the external world, the brain carries out a series of deconstructions whereby colour, form and motion are identified in different areas of the brain and at different times using past events and experience which vary between individuals and which change from moment to moment as life unfolds, undoubtedly modified by other mental and chemical states of the body. Most importantly

the mental image must be recognised to be a construct from a selection of extracted elements. We cannot therefore act as if what we ‘see’ is a real world view.

This knowledge must affect how we react to everything we see, including of course sculpture. Zeki suggested that artists consciously or un-consciously exploit these brain processes. Thus in looking at sculpture we are likely to be faced with a challenge to see what is there, to learn new forms and confront our experience and learned form recognition. What we can certainly expect is that we will be hard put to see the work as it really is and only close attention will reveal the novelties of its reality. It is this close attention and the resulting novel experiences that make looking at art so rewarding.

Form and informe

Before looking at form in detail there is more to be said about its intrinsic meaning. Reference has already been made to Heidegger's ideas, in for instance his *Being and Time* (Heidegger, 1962), of 'being in the world' – as it is, as we sense it, as we deconstruct it, as we analyse it and ultimately as we synthesise it.

Colour and form are amongst those ideas that have been called quale[1]. Colour is not to be thought of as existing in a thing, after all it is only the light reflected from its surface that is sensed, not the thing itself. It is the wavelength of this reflected light that somehow creates or is associated with the sensation of colour. Likewise form is not in the world itself but a mental construct we assign to arbitrarily chosen sub-elements of it; as a way of getting 'a handle' on the 'world' and making it perceivable.

Colour and form thus only exist for an individual in what is commonly called the 'mind'. What ever colour, form and mind really mean they presumably evolved as being useful to survival.

The concept of Gestalt, an idea the sculptor Robert Morris dealt with especially (Morris 1966), is the idea that we have a bodily relationship with forms, no matter how abstract, that occupy our bodily space. We have seen that the brain is thought to perceive 'form' by which is meant the idea of Gestalt; defined as a configuration or pattern of

[1] Quale: thing having quality; sensation considered in virtue of its own quality alone; quality having independent existence. (Hutchinson 2000).

elements so unified as a whole that it cannot be described merely as a sum of its parts.

This process of perception of form involves the classification of shapes etc and is only a step away from language. In practice it is a reductive process since every scene or object can be seen in a huge number of diverse ways and simplification is needed to achieve recognition and thereby action. Thus rather than seeing the thing as it is, our brains replace it with a simplified version which stands in place of the thing as it is. As for example when we see a round shape we have no difficulty in 'seeing' this as being a perfect circle (or ellipse), even though only theoretically could it ever be a 'perfect' circle. This applies with diminishing strength as the shapes move from a single line of the circle, through triangle, square up to polygons and their equivalents in 3D.

Thus the eye/brain constrains what we 'see' to reconstruct the world as a set of previously experienced forms. It must do the same for colour; in practice we often reduce this even further by labelling colours as groups of say 'blues' which we call 'blue', even though we can detect nuances. In the same way forms are overlaid with language when we describe shapes as being 'circular' or 'square'; again deliberate approximations intended for the purpose of practical communication but in practice constraining what we 'see'.

These extracted, disassembled features of colour and form originate in the materiality of the world out there. If there is anything that can be called reality it is this materiality on to which we project our perceived ideas of

colour and form. Thus we can say that materiality is essential to form, but form is not essential to materiality.

It was perhaps this, that form is not essential, that lead Georges Bataille to enunciate the principle of formlessness in the "dictionary" entry he wrote for the word *(informe)* in the magazine he edited, *Documents,* in 1929:

> "*informe* is not only an adjective having a given meaning, but a term that serves to bring things down in the world, generally requiring that each thing have its form. What it designates has no rights in any sense, and gets itself squashed everywhere like a spider or an earthworm. In fact, for academic men to be happy, the universe would have to take shape. It is a shared goal throughout philosophy: it is a matter of giving a frock coat to what is, a mathematical frock coat. On the other hand, affirming that the universe resembles nothing and is only formless amounts to saying that the universe is something like a spider or spit." (Bataille 1929)

In defining *informe* for the Guggenheim Museum web site (Krauss, 2005) Rosalind Krauss wrote:

> "If the 1920s are celebrated for the consolidation of an aesthetic of *form,* .. the end of the decade brought an attack on formal thinking. As Bataille explained, dictionaries—like works of art or literature - should be operational: rather than bestowing form by giving definitions, their job should be to strip things of their idealizing cloaks of abstraction to reveal their materiality, a materiality that is formless." (Krauss, 2005)

She continued:

> "Although Bataille's analogue for the *informe* was the crushed spider or the blob of spittle, .. Giacometti's example of formlessness cannily assumed a highly polished, even geometrically simple set of shapes. The formlessness generated by *Suspended Ball* [Figure 5] came instead from how it short-circuited the structural logic of form, which Bataille had spoken of categorically. Based on opposition, every category of thought is maintained not simply by what it names but by what it opposes: good as opposed to bad, male to

female, life to death. Giacometti's work, containing a cleft ball hung so that it could swing over a recumbent wedge produced just this stymieing of categories in that its "erotics" enacted a blurring of gender, the wedge appearing both labial and phallic, the ball cast as both active and passive." (*ibid*)

Krauss here took the meaning of *informe* beyond simple formlessness.

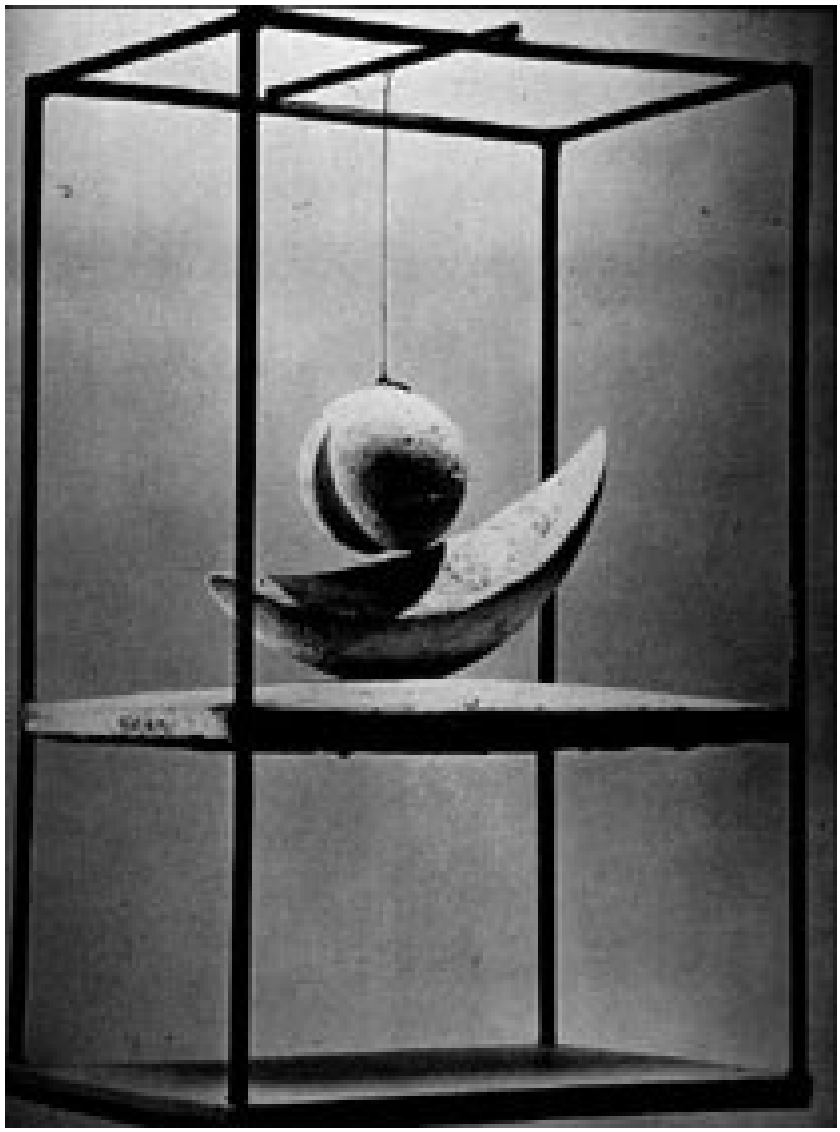

Figure 5: Alberto Giacometti, *Suspended Ball*, 1930-31. Wood and metal, 24 x 14 ½ x 14 ", Musee National d'Art Moderne- CCI, Paris

Krauss continued:

"Not surprisingly, given Modernism's commitment to an aesthetics of form, the accounts of artists such as Giacometti or Miró have until recently omitted their

> connections to Bataille and to *Documents,* passing as well over the theoretical implications of the *informe.* These implications are not just tied to Surrealism however, but extend to much postwar art as well, whether in the French movement of *décollage* or in Robert Morris's notion of "anti-form" or Robert Smithson's concept of entropy." (*ibid*)

In *Formless: A User's Guide* (Bois & Krauss 1997) written to accompany the exhibition at the Pompidou Centre (see Figures 6 & 7), Yves-Alain Bois and Rosalind Krauss in discussing *informe* made several points of particular relevance to sculpture. Bois wrote:

> ".. being "purely visual", art is addressed to the subject as an erect being, far from the horizontal axis that governs the life of animals. Even if one no longer speaks of painting as a "window opened onto the world", the modernist picture is still conceived as a vertical section that presupposes the viewer's having forgotten that his or her feet are in the dirt. Art, according to this view, is a sublimatory activity that separates the perceiver from his or her body." (Bois & Krauss 1997 p25)

So rather than mutual awareness in the presence of art, Bois suggests that the viewer becomes detached from himself. He continued:

> "..the concept of image presupposes a possible distinction between form and matter, and it is this distinction, in so far as it is an abstraction, that the operation of the formless tries to collapse." (*ibid* p29)

He here takes us back to the idea of form as a construct imposed on the materiality of the world. He continues in his chapter *Base Materialism*:

> "Most materialists … have situated dead matter at the summit of a conventional hierarchy of diverse types of facts, without realising that in this way they have submitted to an obsession with an *ideal* form of matter, with a form that approaches closer than any other to that which matter *should* be' …the formless matter that base materialism claims for itself resembles nothing, especially not what it should be, refusing to let itself be

assimilated to any concept whatever, to any abstraction whatever." (*ibid* p53)

Bois stresses how we cloak materiality in our own ideas.

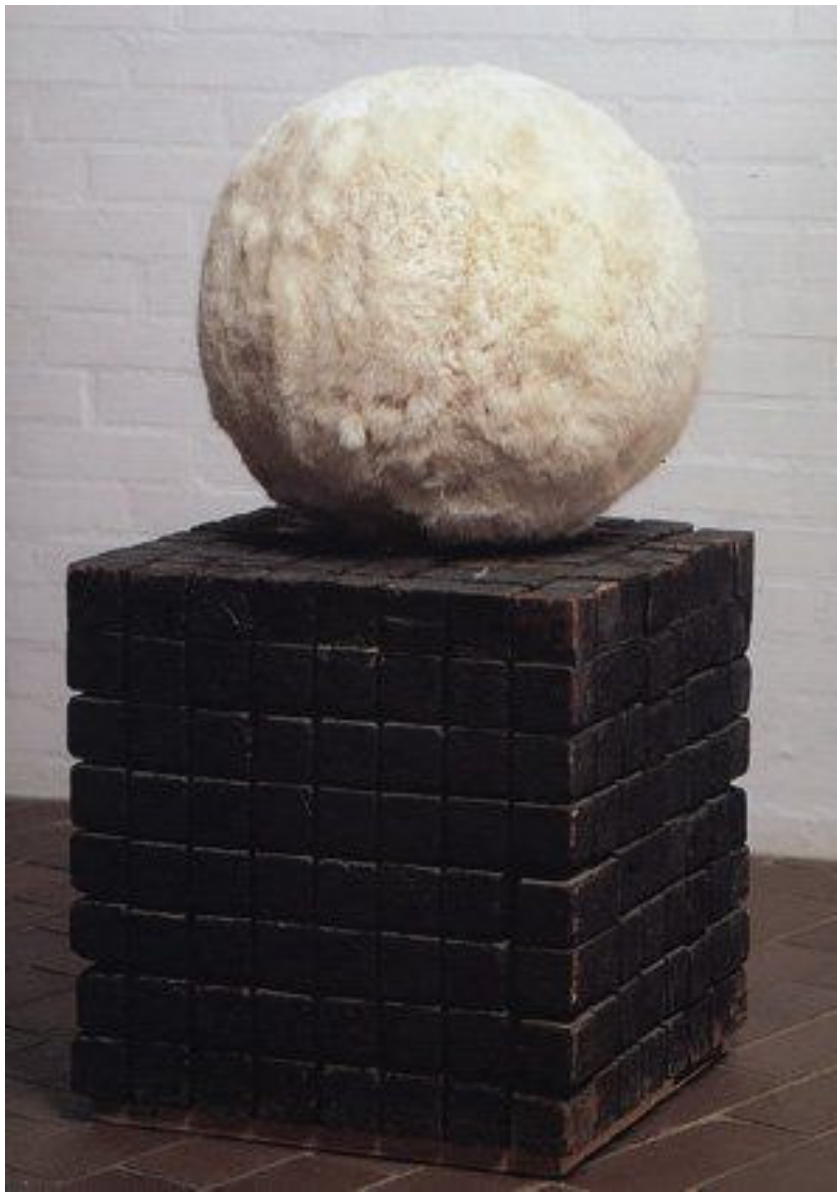

Figure 6: Piero Manzoni, *Achrome*, 1961. Burned wood and rabbit skin, 18 " diameter, 18 ½ x 18 ½ x 18 ½ " base. Herning Museum, Denmark

In his chapter *Figure*, Bois wrote:

"Metaphor, figure, theme, morphology, meaning – everything that resembles something, everything that is gathered into a unity of a concept – that is what the *informe* operations crushes, sets aside with an irreverent wink: this is nothing but rubbish." (*ibid* p79)

That is, *informe* recognises the human constructs that we put on materiality and rejects them.

Further on in the chapter *Gestalt*, Krauss wrote:

> "Unlike the space of the physicist, the phenomenologist's ether is heavier at the bottom, than it is at the top, denser in back of objects than it is at the front of them, and different on the right side than on the left. Made then in the self image of the human subject – subject to gravitation, ventrally sighted, dextrally favored – perceptual space is in this sense a projection of that subject, returning the perceiver's own potential image as though in an invisible mirror." (*ibid* p89)

Krauss states that our subjective experience of the world is strongly influenced by the physicality of the human body.

Figure 7: Robert Smithson, *Slant Piece*, 1969, Mirror and rock salt, 120x100x120cm, Allen Memorial Art Museum, Ohio

Further on in discussing abjection and *informe* she wrote:

> "The question Kristeva had been posing...how to conceive the connection between subject and object, whether the subject is the psyche and the object is the soma, or the subject is a conscious being and the object, its world." (*ibid* p237)

Krauss highlights the issue of the sense of mutual self-awareness between the seen and the seer.

> "..the Gaze as an irradiant surround, comes at the subject from all sides ... works against the Gestalt, against form." (*ibid* p242)

Here she takes the discussion beyond mutual awareness and into the area of the Gaze as a destructive force. In this case not the destruction of the the 'male gaze' but of the Gaze in general as penetrating beyond the form and into the heart of the object/subject.

So considering all these various aspects, *informe* can perhaps be defined as the unformed, as the materiality of the thing as is; not the perceived form.

There has long been a hierarchy in the visual arts with painting at the apex and sculpture some way behind. Sculpture was seen as base material, lower than painting with its illusions of grandeur. Thus sculpture was raised on plinth in an attempt to elevate it, symbolically, to the level of painting. Caro amongst others gave sculpture its due and removed the plinth so that the sculpture and its materiality stood for itself.

This is not to suggest that Caro was influenced by *informe* but Robert Morris surely was for :-

> "In 1968, Morris posited the notion of "anti-form" as a basis for making art works (Figure 8) in terms of process and time rather than as static and enduring icons, which he associated with "object-type" art.

Morris stressed this new art's de-emphasis of order through nonrigid materials and the manipulation of those materials through the processes of gravity, stacking, piling, and hanging." (Guggenheim Glossary 2005)

Figure 8: Robert Morris, *Untitled, (Pink Felt)*, 1970. Felt, dimensions vary with installation. Guggenheim Museum

Not only were artists like Giacometti, Fontana and Manzoni to embrace ideas of formlessness but so also did Robert Morris amongst others.

Sculpture: perceived scale and form

We do find these phenomenological and neuroscientific ideas occasionally referred to in writings on sculpture. For example, in *Passages in Modern Sculpture* Krauss defined what she saw as an essential aspect of modern sculpture:

> "The History of Sculpture coincides with the development of two bodies of thought, phenomenology and structural linguistics, in which meaning is understood to depend on the way that any form of being contains the latent experience of its opposite; simultaneity always containing an implicit experience of sequence. …sculpture is .. located at the juncture between stillness and motion, ….. From this tension, which defines the very condition of sculpture, comes its enormous expressive power." (Krauss 1977)

Here she explicitly referred to phenomenological aspects of sculpture which Robert Morris referred to in his writings.

In his article *No more scale: the experience of size in contemporary sculpture* James Meyer wrote:

> "Morris's definition of sculpture implied a phenomenological interaction between the work and the spectator; … scale denoted not only a relation between a viewer and an artwork, as for Newman, but a triangular interaction between spectator, artwork, and gallery space." (Meyer 2004)

Meyer extends the interactions to include the location and the heralding of 'site specific' work. He continued:

> "In her 1983 essay "Richard Serra, A Translation," Rosalind Krauss analyzed *Shift* [Figure 9] in light of the phenomenological concept of transitivity, the chiasmatic relation of two bodies, of "seer and seen," by which, according to Merleau-Ponty, the subject comes to know herself. Reconceiving the experience of sculpture as thoroughly contiguous (with real space, with others), *Shift* was a powerful demonstration of the phenomenological premise of being-in-the-world (the self, for Merleau-Ponty, is not a monad but utterly penetrated by all that surrounds it and capable of acting on these surroundings). This integration of the

spectator with place suggested a new concept of scale." (*ibid*)

Again we come back to Merleau-Ponty and to Heidegger's phenomenology but including the location and the sense of scale.

Figure 9: Richard Serra, *Shift*, 1972. King City, Ontario

In 1966 in his *Notes on Sculpture,* Robert Morris wrote extensively about many aspects of contemporary sculpture as he saw it. He was clearly aware of many aspects of the neural processes involved in looking at sculpture:

> "In the simpler regular polyhedron such as cubes and pyramids, one need not move around the object for the sense of the whole, the gestalt to occur. One sees and immediately "believes" that the pattern within one's mind corresponds to the existential fact of the object." (Battcock 1995 p226)

He described the instinctive processes in the brain quite perceptively. He continued:

> "The more specific nature of this belief and how it is formed involve perceptual theories of "constancy of shape," "tendencies toward simplicity," kinesthetic clues, memory traces, and physiological factors regarding the nature of binocular parallax vision and the structure of the retina and brain. Neither the

theories nor the experiences of gestalt effects relating to three-dimensional bodies are as simple and clear as they are for two-dimensions. But experience of solids establishes the fact that as in flat forms, some configurations are dominated by wholeness, others tend to separate into parts." (*ibid* p228)

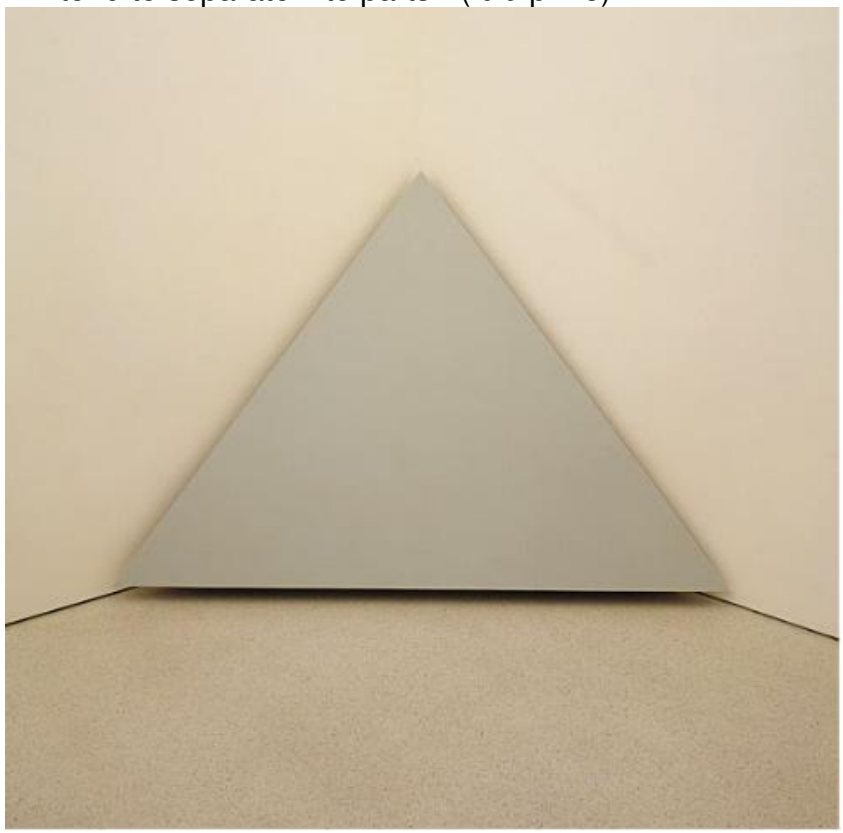

Figure 10: Robert Morris, *Untitled, (Corner Piece),* 1964. Painted plywood and pine, 72 x 102 x 51" overall. Guggenheim Museum.

This is a clear description of the recognition in the brain of elementary forms. Later he explained the essential difference between sizes of sculptures:

> "The size range of useless three-dimensional things is a continuum between the monument and the ornament. Sculpture has generally been thought of as those objects not at the polarities but falling between. The new work being done today falls between the extremes of this size continuum. Because much of it presents an image of neither figurative nor architectonic reference, the works have been described as "structures" or "objects." (*ibid* p230)

This is a theme that Fried explored in his essay *Art and Objecthood* (Fried 1967).

Morris continued:

> "In the perception of relative size the human body enters into the total continuum of sizes and establishes itself as a constant on that scale. One knows immediately what is smaller and what is larger than himself. It is obvious, yet important, to take note of the fact that things smaller than ourselves are seen differently than things larger. The quality of intimacy is attached to an object in a fairly direct proportion as its size diminishes in relation to oneself. The quality of publicness is attached in proportion as the size increases in relation to oneself. .. The qualities of publicness or privateness are imposed on things. This is because of our experience in dealing with objects that move away from the constant of our own size in increasing or decreasing dimension. .. The awareness that surface incident is always attended to in small objects allows for the elaboration of one detail to sustain itself." (Battcock 1995 p230)

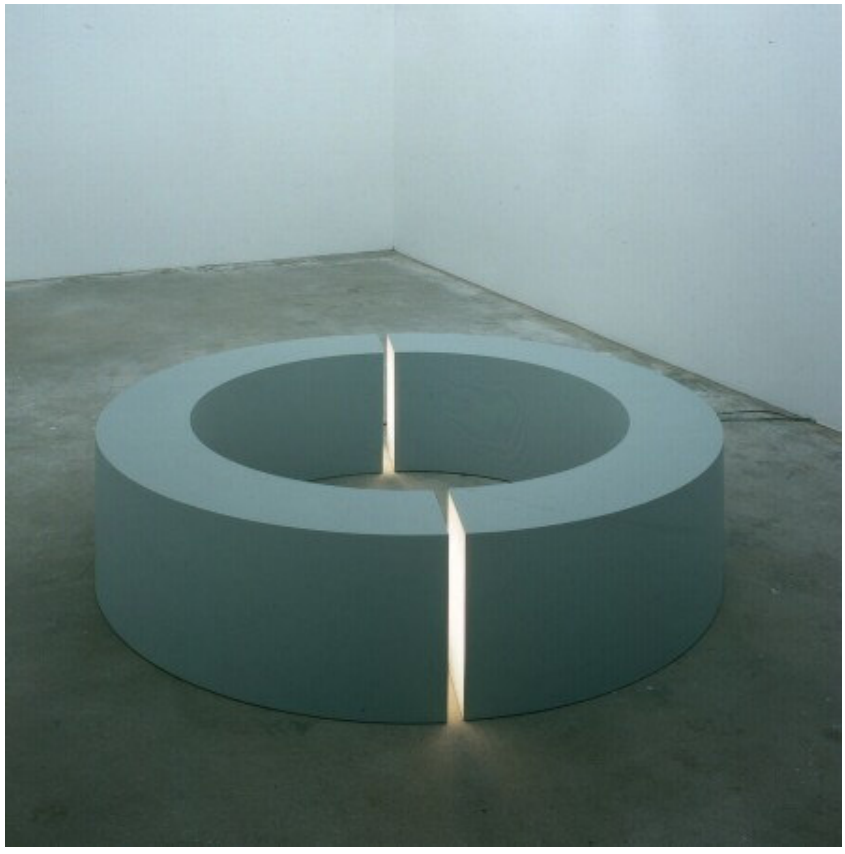

Figure 11: Robert Morris, 1965-66, *Untitled (Ring with Light)*, wood, fiberglass & light, Dallas Museum of Art

Morris here brought in intimacy, privateness and publicness as applied to sculptural objects. He went on to introduce the concept of scale:

> ".. it is the more conscious appraisal of size in monuments that makes for the quality of "scale". The awareness of scale is a function of the comparison made between that constant, one's body size and the object. Space between the subject and the object is implied in such a comparison. In this sense space does not exist for intimate objects. A larger object includes more of the space around itself than does a smaller one. It is necessary literally to keep one's distance from large objects in order to take the whole of any one view into one's field of vision. The smaller the object the closer one approaches it and, therefore, it has correspondingly less of a spatial field in which to exist for the viewer. It is this necessary greater distance of the object in space from our bodies, in order that it be seen at all, that structures the non-personal or public mode. However, it is just this distance between object and subject that creates a more extended situation, for physical participation becomes necessary." (*ibid* p231)

We have seen here how concepts of scale and form affect the perception and awareness of sculpture and how the site and the siting of the sculpture are so important in their effects.

Contemporary sculpture

We may as viewers have access to some of the image processing that goes on in the brain. This processing has evolved and as such will be imperfect but adequate for general survival. The brain clearly 'covers up' what we cannot see – e.g. behind us, the back of objects; it takes our attention away from such areas. It makes a generally consistent world view covering up inconsistencies.

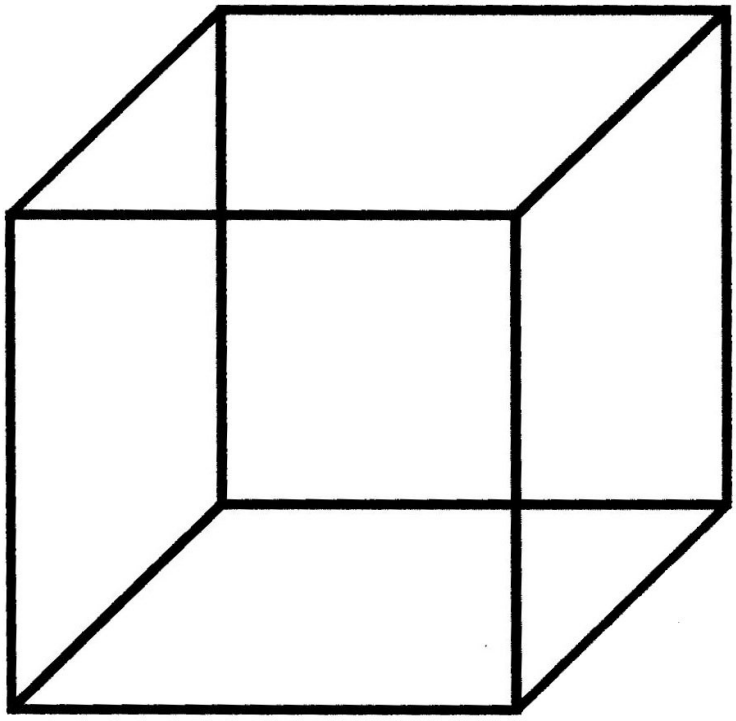

Figure 12: *Kanizsa cube*

As we saw before with the Dalmatian dog (Figure 4) the brain imposes meaning on its world view. Figure 12 is invariably 'seen' as a cube; but more curiously as it is ambiguous as to whether the cube 'goes into' the page or 'comes out', the image can be seen as either, but never simultaneously. The brain insists that we see it as either one or the other but vacillates between the two. It insists on a meaning but can't quite decide which.

Since we learn to see through our experiences, we all see differently. We have real, but unconscious visual limitations both individually and as a species. We can only see what we can process through reconstruction from 2D images. Our perception is modified/moderated by our cultural experiences; our ideas are reflected back into what we 'see' out there.

Having considered the perception and awareness of everyday objects, attention now will be turned to art works and to sculptural objects and structures, in particular. In the American Society for Aesthetics forum the artist Scott Jackson wrote:

> "Most artists are trained to do away with language and the common sense conception of objects in order to focus on the relationships between tonality, color, composition, positive and negative space, and so on. The artist must switch into another mode of processing sensory information in order to see art in the everyday environment and to produce it. Inversely, the art object must be compelling enough to induce a different mode of sensory processing in the viewer." (Jackson 2005)

Jackson here put his view that aesthetic art objects invoke different modes of the brain to those used for viewing everyday scenes. Jackson went on to quote Dufrenne:

> "… aesthetic activity involves a *transformation* of everyday perceptual, cognitive and affective processes giving rise to a uniquely structured aesthetic object." (Dufrenne 1973).

He also quoted Shklovsky:

> "The purpose of art is to impart things as they are perceived and not as they are known. The technique of art is to make things 'unfamiliar', to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged. Art is a way of experiencing the artfulness of the object. The object is not important." (Shklovsky 1917).

Thus Shklovsky stresses appearance rather than ‘reality’, in fact stressing that art creates its own vision of things.

Having identified these ideas on the factors involved in the perception and awareness of sculpture they should be born in mind when considering some actual pieces, for example, work by Tony Cragg and Jim Lambie.

Figure 13: Tony Cragg, *Tongue in cheek*, 2002. Bronze 130x170x230cm, Cass Sculpture Foundation, Goodwood, UK,

Tony Cragg’s sculpture is fairly conventional in that he generally produces free standing self contained pieces that the viewer can circumnavigate from within his/her own observation space. Whilst his work has a wide range of forms he is clearly interested in the materiality of these, especially their interiority.

Cragg’s work has been variously described:

> “The central theme of Tony Cragg's work is his preoccupation with the material world - the reality of objects, which either come from nature, albeit a man-modified nature or the useful things we make to help us exist.“ (Lisson Gallery 2005)

Figure 14: Tony Cragg: *Slice*, 2000 Bronze 60x60x230cm, Galleri Andersson Sandström, Umeå, Sweden

"Cragg's work is a three-way dialogue between images, objects and materials." (Cooke 2005)

"Cragg's interest in … the way that scientific discoveries have extended the boundaries of the natural world – opening invisible realms to knowledge – and in the blurred distinctions between the natural and the artificial, has nourished his promethean imagination." (Cybermuse 2005)

"A Place in My Heart [Figure 14] is typical of the formally inventive sculptures that characterize Cragg's recent work. … [his] ability to analyze, deconstruct, and recombine the forms of things existing in the world to make new and unfamiliar objects that tease us with their resemblance to things we know. The skin of dice that clads the forms knits them together .., while taking us metaphorically from the inner world of the body in which function dominates to the world of everyday experience where chance and the aleatory have equal importance. … the incongruity of scale and form between the small, regular shape of the dice and the organic volumes they mask that pleased him." (*ibid*)

Figure 15: Tony Cragg, *A Place in my Heart*, 1998. Thermoplastic dice over fibreglass, element 1: 228 x 190 x 109 cm; element 2: 172 x 90 x 92 cm, National Gallery of Canada

In his own words Cragg concisely expressed the importance of being in the presence of his sculpture:

> "I want people to stand there and think 'This is a sculpture, how do I get involved with this sculpture?' " (Cragg 2005)

Cragg is clearly interested in both phenomenology and scientific aspects of perception with a major emphasis on form and materiality running through his oeuvre.

In contrast to Cragg's comparatively conventional sculpture, Jim Lambie is much more radical. In his 2005 Turner Prize installation (Figures 16 & 17), Lambie exploited many of the factors involved in awareness and perception already discussed in this essay. He drew the observer in to his work and assailed them with colours, forms and situations that are far from everyday experience.

Figure 16: Jim Lambie, *Installation*, 2005. Tate Gallery, London

Lambie's installation was in a large room dedicated to it, in the Tate Gallery. Lambie has covered the floor in a pattern of black, grey and silver tape. On entering the room one is therefore immediately within the sculpture and diminished by the sheer extent of the pattern. Within the room there are several sculptural elements including a large replica of a cheap ornamental ceramic bird in beautiful colour with a highly finished surface.

Lambie in enlarging the bird has retained the impression of the original ornament as being smooth and highly finished but, of course, seen at such high magnification under a microscope the object would have appeared very coarsely finished. Hanging on the bird is a ladies handbag

covered in shards from a broken mirror. By the presence of this there is the clash of the high finish and colour of the bird and the broken glass of the mirror. In this and many other contrasting elements Lambie invites the viewer to experience the clash of scales, colours, textures and forms and the resulting effects that these produce.

Figure 17: Jim Lambie, *Installation*, 2005. Tate Gallery, London

Whilst these example sculptures can be described in words it is certain that verbal language in no way can convey the experience of being in the presence of these works. We have no words, yet we feel that there is something being said. We are grasping for the equivalent

of language but not in words but in communication of visual experience. We are, as Fried said in his writing on Caro:

> ".. [like] a small child, at most on the verge of speech, in the company of adults conversing among themselves." (Fried 1963)

Conclusion

Starting with Fried's essay on Caro's work which introduced phenomenology as an essential factor in viewing sculpture, brought out the notion of sculpture as being pre-verbal in many of its aspects. It was then shown how sculpture has presence that interacts with the viewer and the location of the work. Moreover the importance of form was established and the excursions into neuroscience suggested how this is perceived. This led to thoughts about how we conceive the world and things within it.

Neuroscience privileges the concepts of colour and especially form, which as Gestalt theory leads to the categorical opposite, *informe,* and the distinction between form and materiality, which applies particularly to sculpture.

These diverse elements of perception and awareness informed the discussion of the work of Cragg and Lambie as examples of how these factors can contribute to our enhanced appreciation and understanding of contemporary sculpture.

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