

insights and dividing lines: the medical- anatomical body in contemporary art

● *Almost no scientific invention, principle, fact, technique or technology seems immune to the artistic appetite.* 'Galleries are labs of a sort'. Roberta Smith in the New York Times, 1999

In this paper I will focus on the issue of art and science, by way of looking at a specific concern in contemporary art: the insides and boundaries of the human body, or the medical-anatomical body.

As I started my research only recently, this paper will not present a fully formed opinion or result. It will sketch outlines and give some examples. But foremost it is meant to formulate some fundamental questions and hypotheses concerning the boundaries between art and bio/medical science, as well as the boundaries of the body and its significance in culture and knowledge formation.

First I would like to dip into the issue of art and (bio)medical science as there are a growing number of examples of encounters, collaboration and confrontations between the two since the 1990's. Or as artist/scientist Ellen Levy defines it tellingly in 1996: 'the interface of art and science'. The question to be answered in her article in the *Art Journal's* issue on Art and the genetic code - 'Can they really meet?' - is still under scrutiny. Discussions on art and science are in fact occurring in the art-scene since the late 1960's. (Of course there is a much longer history involved, not much acknowledged by arthistorians).

Secondly I will tackle the more (art)theoretical and (art)philosophical issues that lurk on a deeper level behind these projects.

P.S. It is not my aim here to provide you with profound analyses or interpretations of the works, solely to use them as examples.

1. ENCOUNTERS, COLLABORATIONS AND CONFRONTATIONS.

Let's start with some probably well known examples. Helen Chadwick's *Viral Landscapes* of 1988/89 uses blood and microscopic images of cells from her own body in photomontage. [dia]. "It offers", as was said in a media release in 1991, "a provocative alternative to an idealised and romantic view of nature". Later, in 1996, Chadwick produced just before she died,

Unnatural selection, of which we see here *Nebula*, consisting photographs of fertilised eggs, cells dividing, and in this example, an unseeing cataract eye in the middle.

For Mona Hatoum's work *Corps étranger* (1994), we enter a booth in which we see a pulsating and 'pulling' projection on the floor of intimate, fleshy body parts/orifices and endoscopic videofragments (amongst others); we are virtually moving over, in en through the artists body, while hearing her breath and heartbeat. An 'obscene' body in two senses: as an agent of pollution and sexual threat but also a body beyond-the-scene, at the outskirts of the visible, merging interior and exterior. Providing the viewer ultimately with three disparate viewing experiences at the same time: the aesthetic gaze, the clinical gaze and the pornographic or voyeuristic gaze, as Ewa Layer-Burcharth so pointedly writes.

Last example, maybe not so well known, is Canadian artist Louise Wilson's installation *Possessed* (1995), which she made after subjecting herself as a volunteer to various medical researches into sleep, dream and memory, for which were used high-tech investigative techniques such as MRS (magnetic resonance spectroscopy) en MRI (magnetic resonance imaging). One of the issues being the sense of oneself as both sensate body and mere data. Or, as the artist herself states, "To be the subject in a lab study is potentially to see one's body mediated as a generic site (..) In the Laboratory, the livid body, along with its virtual offspring, the data body, separate."

Chadwick, Hatoum and Wilson are three examples of artists working with scientific medical techniques and instruments. Although in different ways. Hatoum and Wilson (as did Chadwick in her 1989 project) subjected their own bodies to medical techniques. But as Wilson used the *experience* as *research* for her installation, Hatoum (and Chadwick) harvested images through medical techniques and devices to use in their installations. Chadwick sought for her 1996 project a place in the medical lab itself, learning the techniques herself and using the knowledge present in the lab. She was what's called an 'artist in residence' in the In Vitro Fertilisation Unit of Kings College Hospital in Oxford. Such 'residencies' have a fairly long tradition in England, and occur also in the United

States and in France. Since the 1990's these residencies, but also other kinds of collaboration-projects and encounters are organised (and financed) by special Foundations/Funds to stimulate the mating of art and (bio)medical science. (It must be mentioned that most organise encounters with other sciences too, e.g. space-research). To name a few: *Arts Catalyst* caters for an extensive programme of residencies, encounters, exhibitions etc., for example the collaboration of artist Adam Lowe and cancer-specialist Merrill Garnett. In France there is *CAMAC* (Centre d'Art, Marnay Art Centre), which defines itself as a 'centre for interaction, experimentation and exploration'. Another new phenomenon is the 'scientist in residence', scientists who visit newly installed 'labs' in art academies - for example at the Ruskin School of Drawing and Fine Art in Oxford - and coming to terms with visualisation as a signifying practice.

Medical research centres are developing their own visual arts programmes, like the National Institute for Medical research in London (Mill Hill) and a better example yet: powerfull (and rich) medical research centre the Wellcome Trust in London, which has an art gallery of their own (Two10 Gallery). The Trust makes a challenging proposition, especially for the art world: they claim that the gallery serves two aims: an educational aim, bringing otherwise difficult medical research to the public through artistic visualisation. The other is purely aesthetic: to show and present the aesthetic quality of (bio)medical images. For this they invented the Sciart Award. In the gallery they show works by artists and scientists, results from collaborations, works by scientists who have also been professionally trained as artists. It is interesting to dwell on the issue of aesthetics and on the aspect of (sheer) beauty in medical images. But more about that in a minute.

Special attention should also be given to an enormous project which has attracted many artists: The American Human Genome Mapping Project, a project aiming at the ultimate unveiling of human DNA. The names of (Nobel prize winners) Crick and Watson (and Rosalind Franklin), the first to visualise human DNA, occur in the pages of art journals since 1996. From the Human Genome Project sprouted Genomic Art, which hosted several exhibitions. The latest, titled *Paradise Now: picturing the*

genetic revolution, can be viewed on the internet, and is very alluring. In the introduction, the curators of this exhibition state that "we are on a threshold, witnesses to the moment when genetic research is rewriting the definition of life" and further on: "artists play an important role in creating images that give shape to abstract, complex concepts", but they also "raise questions about the social, ecological, economic, and ethical implications of science's breakthroughs." This was already acknowledged in the *Art Journal* of 1996: "A critical art practice is uniquely equipped to produce visual accounts of the relations of power/knowledge that correlate the dynamics of the macro-political to the dynamics of the micro-world."

It seems to me that artists working in the field of (bio)medical sciences tend to be social critics. Issues of gender, race, behaviour, artificial reproduction, mutation and genetic diversity are high on the agenda, while on the other hand scientists (who share these issues) are eager to embrace a rather classical idea of beauty, this is beauty as it is found in nature. Beauty meaning: harmony, symmetry, coherence; or in a more intuitional way, meaning the structure of the image looks "just right". As they are aware of the effects of added colour. "But is it art?" Many art critics question these images produced by science. They tend to view them solely as illustrations, as highly perfected reproductions, showing great skill, but no real significance in terms of comment.

I want to elaborate some of the differences that surface in many collaboration-projects.

From a very illustrative book on arts and sciences, edited by Sian Ede, emerges the image of two cultures which are attracted to each other. The question is how fundamentally different those two cultures are. In both cultures 'research' is being done, but in principally different ways and with different aims most of the time. The scientist want to prove something (with controlled methods), while the artist want to show something (often sensitive to the political and ideological perspectives). Martin Kemp writes that "scientists aim for a verbally controlled explanation of the process they are investigating, while artists instead insist that the sum of a work's effects must ultimately be its end."

Artists are “visual scientists, doing impossible experiments”, as Vered Lahar writes. Artists don’t illustrate scientific issues, but produce metaphorical hypotheses about what the invisible world might contain. Ken Arnold of the Wellcome Trust speaks of “visual thinking” in connection to artists - “a mode of perception and understanding which is quintessentially beyond logic and words”. It is perfectly possible, as Kemp states, for artists to prefigure in their work physically significant ideas which are only later fully explored by science” (of which he gives examples).

But is this simply a question of difference between a visual and a verbal culture?

Many scientists still view their part in collaborations as “the real work”. As things stand, the art in many art-science collaborations is “the icing on the cake - decorative, eye-catching and of superficial educational value” - in the eyes of scientists. At the same time scientists are more and more involved in “visualising the invisible” - an aim not totally unfamiliar to artists. Science develops its own visualising techniques especially in digital media - which are also rapidly appropriated by artists. Some scientists are aware of the constructed nature of the resulting ‘images’, in which the “layering” of information does not much differ from the (metaphorical) layering of meaning in artistic images. Artist Adam Lowe is positive in understanding the new signifying practices of both artists and scientists: “forming and reforming the vast amount of data held within an image is an activity common to both cultures”.

Both scientists and artists have steadily moved from the frozen result of their efforts (i.e. the lab specimen, the painting or sculpture) to the ‘gliding’ and changing signifiers of video, film and digitised image-making. Many writers on art and science agree that digital media and computer software have provided the perfect point of contact for technologically oriented artists and artistically sympathetic scientists and technicians. In the catalogue of the exhibition in the Hungarian pavilion at the Venetian Biennial this year we can read this in no uncertain words. Julia Fabeyi speaks of a real “paradigm shift”. It reads like a manifesto: “We expect from contemporary art(ists) to be keenly aware of our age, to make maximum use of the possibilities of their time and media (..) to make the idioms of each genre their points of refer-

ence in their trans-generic communication (...) They are freed from the role of the marginalized artist (..) They are party to the international discourse, participate in the transformation of the value system, (axioms) concerning the role and responsibilities of the artist.” “The artist is an engineer-creator and theoretical scientist”, as media artist and philosopher Kömlódi adds further on in the same catalogue. He sees the advent of a “contemporary Gesamtkunstwerk, which has incorporated science as well.” (There is a contribution by a neurologist as well.)

These tendencies have activated some cynical critique, for example from Tom Hollert in *Texte zur Kunst*, who sees these art-science collaborations moving in just one direction, that of science, because science has the power (and the money I would add). He would rather discuss what the effects of the new media are on the perception of the traditional artistic media. It is just another triumph of the strategy of disembodiment in his opinion. I’m not sure I agree with him on that one, though. These experiments moved the eye back to the body in ways never experienced before (because of science and new visualising techniques). Raising some fundamental questions concerning the body and embodiment in today’s visual culture.

2. QUESTIONS TO BE TACKLED

I tend to consider many of these projects as a proof of the return to the body in contemporary art, as it is taking place since the 1960 (with body art and videoperformance). The question is of course, what kind of body are we ‘returning to’? Is this the body as an effect of cultural inscriptions? Is it a site of identification and identity - or - of disidentification, and subjective volatility? What we see is definitely not a familiar body, easy to identify with. Be it the pulsating, fragmenting experience in Hatoum’s booth or the genetic portraits of Dennis Ashbaugh, Susan Jennings or Inigo Mangano-Ovalle. It seems to involve some aspects of abject art, but also of post-human and virtual reality. Is it simply that “like kinky sex, the *strangeness* and *remoteness* of molecular representation reproduce the body as Other” as was stated in the *Art Journal* of 1996? How can we negotiate our relation to our own flesh with-

in the visual culture and image-based technologies that are crucially involved in the production of our sense of self?

The body seems trapped between being an object of research and a site of experience. Questions that arise with the projects I mentioned concern the relation between the visible and invisible, the issue of nature and construction, the livid body and the data body, the function and effects of new media (as new ways of visualising seems to breed new ways of seeing) - all contributing to the significant confrontation (or should I say interface) between the subject's 'sense of Self' and 'the body as Other'. All these questions speculate on the issue of identity, in an era in which the idea of identity is to be understood as the subtext of the discourse of the gene, as genetics has become the symbol of Self and an expression of cultural identity. For many the Gene is a powerful icon.

These questions can be tackled in various ways. As time is short I would simply sketch two theoretical frameworks worth discussing. First Amelia Jones, who tackles some questions from a phenomenological point of view, second Ewa Layer-Burcharth, who analysed projects such as Mona Hatoum's, working with Lacan's notion of the Real.

Amelia Jones stresses (in her book *Body Art/Performing the subject*) the technologized, specifically unnatural and fundamentally unfixable in identity and subjective/objective meaning in the world. She argues that with fragmentation and displacement as most popular strategies on the (flickering) screen, the body/self becomes dramatically non-perspectival and profoundly anti-Cartesian. The notion of the body as a container of self is fundamentally overturned. With this the subject can no longer be located in fixed time and space, but is instead "multiplied by databases, dispersed by computer messaging and conferencing....dissolved and materialized continuously in the electronic transmission of symbols. The body is no longer an effective limit of the subject-position. The body/self is disrupted, subverted and dispersed across social space." A joint territory for micro and macro worlds. Jones speaks of the body/self as *techno-phenomenological*, which means, "fully mediated through the vicissitudes of bio- and communications technologies, and fully engaged with the social (what Merleau-Ponty would call

"enworlded")." The body/self is hymenal, reversible - simultaneously both subject and object, a limit and a site of joining.

While Jones explores the unfixability of identity across the limits of body and screen, Ewa Layer-Burcharth tries to understand the desire of the subject to see the unseen, the relation between the gaze and the invisible and its significance for the formation of Self. Central to her argument is the body as a kind of invisible (i.e. impossible) reality. The idea of the Real (after Lacan) refers not to a reality of the body on a microscopic level (which is always communicated as a code, waiting to be mapped), but to conceptualise that psychic register that remains inaccessible to the subject (and yet structures its functionings).

"Due to the subject's entry into the realm of shared language and culture it refers to the retroactive experience of one's own body as a remnant or loss. The realm of language and culture mediates and gives sense to your experience of your own flesh, making it visible, that is, culturally intelligible, but it also alienates you from yourself, involving an irreparable loss of 'being' to 'meaning'. The real is the register of the invisible produced by that loss - a residu of formlessness or meaninglessness within yourself that *informs* (shapes and distorts) your psychic existence. It is not quite your actual body. The Real may be seen as that dimension of bodily experience which remains unavailable to you (...) what has been excluded by the symbolic realm of the subject but which persists - if only as a sense of lack."

As you all probably know it is this sense of lack, which Lacan saw as most important link in the formation of the self, through his theory of the gaze. The gaze can be understood as the imaginary apparatus that situates the self in the realm of the symbolic through the agency of the screen. The screen is the site of cultural articulation of the subject, a surface on which its body takes on a meaningful shape. Yet, it is also a treshold that implies a realm beyond the visible, beyond culture, beyond the signifier, a domain of non-meaning - the Real - from which the screen both separates and protects the subject. It seems as if in Layer-Burcharth's text the mirror-stage is definitely transformed into a monitor-stage.

As a last issue of great importance I would like to discuss the visual as a source

of knowledge. In the history of science (and art) - certainly since the Enlightenment - the invisible is the most formulated motive. The desire to gain knowledge about the invisible and reveal it. But how is this knowledge communicated. What is the status of the visual image in the perspective of knowledge-formation? This is still a problematic issue in the art/science collaborations that I mentioned, but is slowly transforming, due to, for example, shared visualisation-techniques. Barbara Stafford wrote a very revealing historical study on this issue (*Body Criticism. Imaging the Unseen in Enlightenment Art and Medicine*).

In the era of enlightenment research and imaging involved the power of observation and practical/manual skills, thus involving practical, non-quantifiable, and non-discursive knowledge of nature. For this, inventing metaphors to embody the unknown was necessary. Still, imagery, like the material body, became systematically drawn into a negative analogy with “fraudulent apparitions, confounding dreams, and irrational delusions”. “This led ultimately to a division between the phenomenal, the manual and the somatic on the one hand and the noumenal, the theoretical and intellectual on the other hand”. In academe, the study of images is typically shunted to the edges of what “really matters”. Knowledge is (or was) to be found in the text, not the image.

Since then a radical shift has taken place from a text-based to a visual dependent culture, although the trustworthiness or significance of the image is still problematic. But the role of metaphors is powerful, according to Stafford. It is through metaphors that unclear emotions and mixed experiences can be configured in a way unattainable through bodiless concepts. *Metaphorology* is a powerful means for understanding the rationally ungraspable or the indescribable.

She writes: “It seems to me that those of us who make, exhibit, study, and teach the visual arts have a special responsibility and glorious opportunity. We possess unique skills and have indispensable insights to contribute to society on precisely this issue. We need to anticipate a future in which the chief certainty is technological change. No area of life remains untouched. Think of the miraculous new medical imaging technologies that noninvasively open windows into secret depths of the body and

the brain. We seriously have to investigate our role in this new world as instructors in visual techniques and strategies.” In many projects I considered this is just what is at stake.

Or as artists Ernest Larsen and Sherry Millner formulate it:

“If, as it seems, the body is in the midst of being radically reconfigured by science, then the social, political, and emotional implications of these advances need to be mapped, made visible, by parallel artistic research - since art itself is in the far from innocent business of making meaning visible and palpable and even valuable.” ●

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