

## The Fruit Fly as Human Model

On the works of Thomas Feuerstein<sup>1</sup>

The images that Thomas Feuerstein (born in Innsbruck in 1968) takes an interest in are not so much artistic artefacts as they are supra-individual models. What drives him is a fascination for narrative figures, or mental images, that human society has collectively spun around itself and around social life. This can be mythical stories like the one about Leviathan and Behemoth – that the artist traces from its first manifestations in the Old Testament, via late thirteenth century illustrations and the state philosophy of Thomas Hobbes (1651), down to the present day – or the figure of the demon or trickster, a sort of inverted Prometheus character, popping up independently in the most diverse cultures, or yet the fruit fly *Drosophila* which, since the end of the twentieth century, has been THE scientific model organism. All of these are no inventions by individuals, but ready-made works of art and ready-made organisms serving sociological constellations, cognitive methods, and collective feats of imagination. They are the allegories of our life.

For the Swarovski art space in Innsbruck, Thomas Feuerstein has decided on the common fruit fly to stand at the centre of his allegorical meditations. Already on entering, the visitor is welcomed by the body of a fly, five hundred times the normal size, made of faceted glass. It is the imago of a famous research object, as it were, entitled "SUPERFLY (*Drosophila*)."<sup>1</sup> In reality, the *Drosophila melanogaster* is only two millimetres long, and yet it is one of the best-researched organisms in the world. Over 100,000 publications have dealt with it so far and there is no end in sight. *Drosophila* originally was a tropical and sub-tropical species. With the trade in bananas and slaves, however, the fly spread all over the world as a so-called synanthrope. In this part of the world it was described first in 1830. As a suitable test organism it was used as early as 1901. The fruit fly can be bred easily and cheaply, it has a short generation succession of only nine to fourteen days, produces up to 400 eggs at a time, and mutations are easily made out. Starting in 1910, Thomas Hunt Morgan began to examine *Drosophila* systematically and soon, with its help, he was able to determine the basic structure of chromosomes. In 1933, he received the Nobel Prize as a result. After many other geneticists had also researched this model organism, the year 2000 brought the first complete genome sequencing. The *Drosophila* fly thus suddenly had become the main biological reference for us humans. Succeeding the apes, it now served as THE template for human mutations and phantasms.<sup>2</sup> Its genes provided the alphabet for a new literature that is writing, and will write in future, further adventurous texts on life. As a side branch to all these different stories, as it were, the fact that many of *Drosophila*'s 19,806 different genes show a remarkable similarity to those of us humans appears as a curious corroboration of the horror film classic "The Fly." The latter tells how a human, through a slightly botched teleportation, becomes mixed up with a house fly. The original story, that ends deadly for both the fly and the human, was written by Georg Langelaan and appeared in *Playboy* magazine in 1957. It has been turned into a film twice already, by Kurt Neumann in 1958, and by David Cronenberg in 1986. Especially the latter,

---

<sup>1</sup> First published in: Andreas Braun (ed.), *FLY ROOM*, Innsbruck 2011, p. 11 - 13.

<sup>2</sup> On the ape as human model see Franz Kafka, *Ein Bericht für eine Akademie*, 1917, and Pierre Boulle, *La Planète des singes*, 1963.

cinema version depicted the mutation through the DNA transformation rather drastically and frighteningly. Today, we know that it was not so far-fetched from the point of view of genetics.

Another allegorical story relating to *Drosophila* is the one concerning the 360-degree view. Like many other insects, the fruit fly looks at the world through two compound eyes, but as hers are bright red, they are particularly striking. Compound eyes, in contrast to the eyes of an eagle, a human or any other predator, are not able to focus or to "get a piece of prey in their sights." At the same time, though, they permit an extraordinary 360-degree view and are fitted with motion sensors that warn the insect quickly of imminent danger.

Cognition compounded in this manner forms the starting point for the two other sculptures Thomas Feuerstein exhibits at the Swarovski art space. They bear the titles PHANTOM and PARS PRO TOTO and magnify the insect eyes to global proportions, so to speak. PHANTOM is made up of two hemispheres and takes the form of an abstracted fly's head, a globe (measuring 150 x 150 x 100 cm). Over a thousand crystals, each of which is fitted with its own point of light, together make up a compound eye that interactively observes its surroundings and at the same time reflects what it sees back onto the crystalline surface.

The installation PARS PRO TOTO, on the other hand, extends across two floors inside the building. A pair of eyes (each measuring 380 x 380 x 80 cm), made of countless crystals equipped with LEDs, welcome the visitors who thus find themselves as if in front of a large shining map of the world. At each movement the eyes awake and take on colour according to the body shapes and gestures within the room. In the process, patterns and colour gradients begin to pulsate across the giant eyes into which the observer dives as into an ocean, thus – pars pro toto – becoming a part of the whole of the world.

Both sculptures, in a very peculiar manner, establish a link between the way the compound eyes of *Drosophila melanogaster* register the world and the manner in which *Homo sapiens* produces images by means of technical media. For, in fact, modern man too increasingly observes the world as if through insect eyes. Our own eye, long since, has hooked itself up to the whole of the world and simultaneously looks at events in different places, intrudes into private and public spheres near and far, crosses borders of the visible, and constantly is being provided with hitherto unseen images. A multitude of photographic lenses, television and mobile phone cameras, telescopes and microscopes have made our gaze at reality ever more complex, made up of pixels. Already, the ever present surveillance cameras in our cities even transmit literally compound images onto the control screens.

There can be no doubt that this new compound or complex eye, representing the state of our perception, our image of the world or of ourselves, produces "pretty pictures." The sculptures created by Thomas Feuerstein for Swarovski are proof enough in this regard. The true insect organs, biologically in fact consisting of thousands of individual eyes or crystal cones, were hugely magnified for the purpose, rebuilt true to scale from finely faceted crystals, and fitted with cameras and computerized LED technology. As a result, the shadows of continually updated satellite photos and world news now are reflected in these eyes, blending in with the contours of visitors passing by. The effect resembles a stunningly colourful psychedelic trip. When John Lennon composed "Lucy in the Sky with Diamonds" for the Beatles, he thought, inspired by Lewis Carroll's *Alice in Wonderland*, of a girl with kaleidoscopic eyes. Just such eyes now not only stare at the world, they also colour and

arrange a new world. The kaleidoscopic gaze creates for itself a multifarious, but also a broken world view. Reality comes across as multifaceted and complex, fantastic and multilayered, but also as disorienting and as fragmenting our identity. For, without a doubt, none of us were born as insects. On the basis of their evolutionary development, humans in fact use their eyes, their brain and their motor skills to a totally contrary purpose. We generally love wide open views, our strength lies in focusing, in planning ahead, and in reaching out for an object, a project, a precise action. Which means that homo sapiens, in accordance with his biological genesis, is more of an "attacker" – in all possible meanings of the word. One may well be alarmed by the fact, therefore, that we now, with the help of technology, increasingly adopt the visual field and the "optical identity" of an "animal of flight," that whizzes about stochastically and constantly seems caught in a latent state of panic. Certain critical symptoms of this new habitat situation have already been partially discussed under the heading of "attention economy" and "state of emergency."<sup>3</sup> The complete individual adaptation performed by Thomas Feuerstein's sculptures make the consequences of such developments appear much more drastically, though. It is no contradiction, by the way, that Feuerstein, in presenting this worrying projection, makes use of the material of crystal glass, generally associated with beauty and eternity. Crystals, and other geological elements, over recent years have increasingly come to serve as a formal or metaphorical reference. The crystal, as an epitome of natural beauty, longevity and hardness, in the process often is coupled with its exact opposite, with the process of wilting, with what is fleeting, and with death. What is surprising, though, is not the stunning frequency with which crystalline forms are used these days. What is surprising is the mood they are set in, their odium, their spin. The shining lustre makes its surroundings appear all the darker or evanescent. The use of these forms is deeply ambivalent. The thing sparkling, in the process, may well be a skull covered in diamonds<sup>4</sup>, and the thing shining a wrecked car. The implied meaning consistently seems to derive from nocturnal thoughts. If we wanted to say it in terms of popular music, the signature tune these days would not be a cheerfully frivolous "Diamonds Are A Girl's Best Friend", but the forlornness of "Shine On You Crazy Diamond." Perhaps what lies hidden behind the current bringing together of eternity and transience is a sort of unconscious incantation directed against the flexibilisation, acceleration and virtualisation palpable all around. By dematerialising our own, scandalously transient body, our vulnerable eye, through crystals, eternalised and bathed in bright light, maybe we are also able to exorcise the imminent danger. Thomas Feuerstein's sculptures work like a real-life fable. We gaze into the genes and eyes of the fly as into a crystal ball and thus project our fate. Imaginary worlds, idly growing rank in our everyday lives, here have been condensed to give us a highly memorable experience.

---

<sup>3</sup> See Georg Franck, *Ökonomie der Aufmerksamkeit: Ein Entwurf*, Munich 1998, as well as Giorgio Agamben, *State of Exception*, Chicago 2005.

<sup>4</sup> See e.g. Damien Hirst, *For the Love of God*, 2007. For further reading on the subject, see Vitus Weh (ed.), *Glanz & Verderben. Die unheimliche Konjunktur des Kristallinen*, Vienna/Bolzano 2009.