

# EXCESS AND INDIFFERENCE

## ALTERNATE BODY ARCHITECTURES

STELARC

### SECTION 1. OBSERVATIONS ON AN AGE OF UNCERTAINTY

*We are living in an age of excess and indifference. Of prosthetic augmentation and extended operational systems. An age of Organs Without Bodies. Of organs awaiting bodies. There is now a proliferation of biocompatible components in both substance and scale that allows technology to be attached and implanted into the body. Organs are extracted and exchanged. Organs are engineered and inserted. Blood flowing in my body today might be circulating in your body tomorrow. Ova are fertilized by sperm that was once frozen. There is the possibility now that the skin cells from a female bodies can re-engineered into sperm cells. The face of a donor body becomes a third face on the recipient. Limbs can be reattached or amputated from a dead body and attached to a living body. Cadavers can be preserved forever with plastination whilst comatose bodies can be sustained indefinitely on life-support systems. Cryogenically suspended bodies await reanimation at some imagined future. The dead, the near-dead, the un-dead and the yet to be born now exist simultaneously. This is the age of the Cadaver, the Comatose and the Chimera. The chimera is the body that performs*

*with mixed realities. A biological body, augmented with technology and telematically performing with virtual systems. The chimera is an alternate embodiment. The body acts with indifference. Indifference as opposed to expectation. An indifference that allows something other to occur, that allows an unfolding- in its own time and with its own rhythm. An indifference that allows the body to be suspended with hooks into its skin, that allows an inserting of a sculpture into its stomach and that allows a ear to be surgically constructed and stem-cell grown on its arm.*

## **SECTION 2. INTERVIEW WITH JENS HAUSSER- EAR ON ARM**

**The following interview with Jens Hauser was done for the “Sk-interfaces” exhibition at FACT in Liverpool. It further elaborates on the issues and implications of constructing an ear as a permanent attachment to the body.**

J.H.- What does it mean to move from the artistic use of hard prostheses to soft prostheses?

S.- Well, you quickly realize that the body is a living system and which isn't easy to surgically sculpt! The body needs time to recover from the surgical procedures. There were several problems that occurred: a necrosis during the skin expansion process which necessitated excising it and rotating the position of the ear around the arm. Ironically, this proved to be the original site that the 3D model and animation was visualized! Anyway, the inner forearm was anatomically a good site for the ear construction. The skin is thin and smooth there, and ergonomically locating it on the inner forearm minimizes the

inadvertent knocking or scraping of the ear. During the second procedure a miniature microphone was positioned inside the ear. At the end of the surgery, the inserted microphone was tested successfully. Even with the partial plaster cast, the wrapped arm and the surgeon speaking with his face mask on, the voice was clearly heard and wirelessly transmitted. Unfortunately it had to be removed. The infection caused by the implanted microphone several weeks later was serious. In fact being admitted into ER with an ear infection took some convincing of the triage nurse who kept wanting to check the ears on the side of my head! It resulted in an operation to extract the microphone, to insert additional tubing around the ear, and a week in hospital tethered to an IV drip. To try to completely eradicate the infection we had to flush the site every hour on the hour during my hospitalization and I was on industrial strength antibiotics for about 3 months.

*J.H.- Since the early Suspension pieces the stretching of skin in your work stands for stretching the definition of what a body is. Once this notion is stretched, what does growing add?*

S.- The suspended body was a landscape of stretched skin. The body was seen as a sculptural object. In constructing the ear on the arm, the skin was also stretched. But in preparation for additional surgical reconstructive techniques and finally stem cell growth to give it more pronounced form. To fully realize the external 3D ear structure will require further surgeries to lift the helix of the ear and construct a conch. This will involve an additional Medpor insert and a skin graft. The Medpor implant is a porous, biocompatible polyethylene material, with pore sizes ranging from 100-250 micrometers. This can be shaped into several parts and sutured together to form the ear structure. Because it

has a pore structure that is interconnected and omnidirectional it encourages fibrovascular ingrowth, becoming integrated with my arm at the inserted site, not allowing any shifting of the scaffold. We had originally considered mounting the ear scaffold onto a Medpor plate thinking that this might elevate it more, and position it more robustly to the arm. But this wasn't the case and this solution was abandoned after being tested during surgery. Now, implanting a custom made silastic ridge along the helical rim would immediately increase helical definition but also would make room for later replacement of that ridge with cartilage grown from my own tissues. The ear lobe will most likely be constructed by creating a cutaneous "bag" that will be filled with adipoderived stem cells and mature adipocytes. Such a procedure is not legal in the USA, so it will be done in Europe. It's still somewhat experimental with no guarantee that the stem cells will grow evenly and smoothly – but it does provide the opportunity of sculpturally growing more parts of the ear... and possibly resulting in a cauliflower ear!

*J.H.- You seem to consciously create a perceptive conflict between the slowness of the biomedical process and the plug-and-play use of the Extra Ear as an accelerating electronic body extension.*

S.- Well, this project has been about replicating a bodily structure, relocating it and now re-wiring it for alternate functions. It both manifests both a desire to deconstruct our evolutionary architecture and to integrate microminiaturized electronics inside the body. It also sees the body as an extended operational system- extruding its awareness and experience. When the microphone is re-implanted within the ear and

connected to a Bluetooth transmitter, sounds the ear “hears” will be wirelessly transmitted to the Internet. You might be in Paris, logging into my website and listening to what my ear was hearing, for example, in Melbourne. Another alternate functionality, aside from this remote listening, is the idea of the ear as part of an extended and distributed Bluetooth system – where the receiver and speaker are positioned inside my mouth. If you telephone me on your mobile phone I could speak to you through my ear, but I would hear your voice “inside” my head. If I keep my mouth closed only I will be able to hear your voice. If someone is close to me and I open my mouth, that person will hear the voice of the other coming from this body, as an acoustical presence of another body from somewhere else.

*J.H.- Therefore one would say that this concept of inter-face as interference is the recurrent theme.*

S.- We certainly need to undermine the simplistic idea of agency and the individual. This project links up in certain ways to my past work. In the performance *Fractal Flesh* my body was involuntarily moved by people in other places using a touch screen interface system to muscle stimulation equipment connected to the body. People in the Centre Georges Pompidou in Paris, the Media Lab in Helsinki and the *Doors of Perception* conference in Amsterdam remotely choreographed the body located in Luxembourg. Half of this body was controlled by people in other places, the other half could collaborate with local agency. It was a split body experience. Voltage-in (on the LHS) moving the body, voltage-out (from the RHS) actuating a mechanical *Third Hand*. So the notion of

single agency is undermined, or at least made more problematic. The body becomes a nexus or a node of collaborating agents that are not simply separated or excluded because of the boundary of our skin, or having to be in proximity. So we can experience remote bodies, and we can have these remote bodies invading, inhabiting and emanating from the architecture of our bodies, expressed by the movements and sounds prompted by remote agents. What is being generated and experienced is not the biological other – but an excessive technological other, a third other. A remote and phantom presence manifested by a locally situated body. And with the increasing proliferation of haptic devices on the Internet it will be possible to generate more potent phantom presences. Not only is there Fractal Flesh, there is now Phantom Flesh.

*J.H.- When Marshall McLuhan devilishly prophesied “in the electric age we wear all mankind as our skin” he might have referred to connectiveness both as increasing awareness of our media extensions and as a burden as well.*

It's of course a condition that needs to be managed. What's also interesting is the observation that electronic circuitry becomes our new sensory skin and the outering of our central nervous system. The idea that technological components effectively become the external organs of the body. Certainly what becomes important now is not merely the body's identity, but its connectivity- not its mobility or location, but its interface. In these projects and performances, a prosthesis is not seen as a sign of *lack* but rather as a symptom of *excess*. As technology proliferates and microminiaturizes it becomes biocompatible in both

scale and substance and is incorporated as a component of the body. These prosthetic attachments and implants are not simply replacements for a part of the body that has been traumatized or has been amputated. These are prosthetic devices that augment the body's architecture by constructing extended operational systems. The body performs beyond the boundaries of its skin and beyond the local space that it occupies. It can project its physical presence elsewhere. The *Third Hand*, the *Extended Arm* and the *Exoskeleton* walking robot are external machines and systems constructed out of steel, aluminium, motors and pneumatic systems. I was always intrigued about engineering a soft prosthesis using my own skin, as a permanent modification of the body architecture hopefully adjusting its awareness. Of course this architecture is still open to the systemic malfunctioning of the body, the possibility of contamination and infection and of course to the longevity of the body itself. The biological body is not well *organ-ized*. The body needs to be Internet enabled in more intimate ways. The *Extra Ear: Ear on Arm* project suggests an alternate anatomical architecture – the engineering of a new organ for the body: an available, accessible and mobile organ for other bodies in other places. Locate and listen in to another body elsewhere...

***Stelarc: Extra Ear: Ear on Arm. Interview by Jens Hauser. First published in: Hauser, Jens (ed.): sk-Interfaces. Exploding Borders – Creating Membranes in Art, Technology and Society. Liverpool University Press. Liverpool/Chicago, 2008. P. 102-105.***