Nasu no Yoichi in The Gempei War

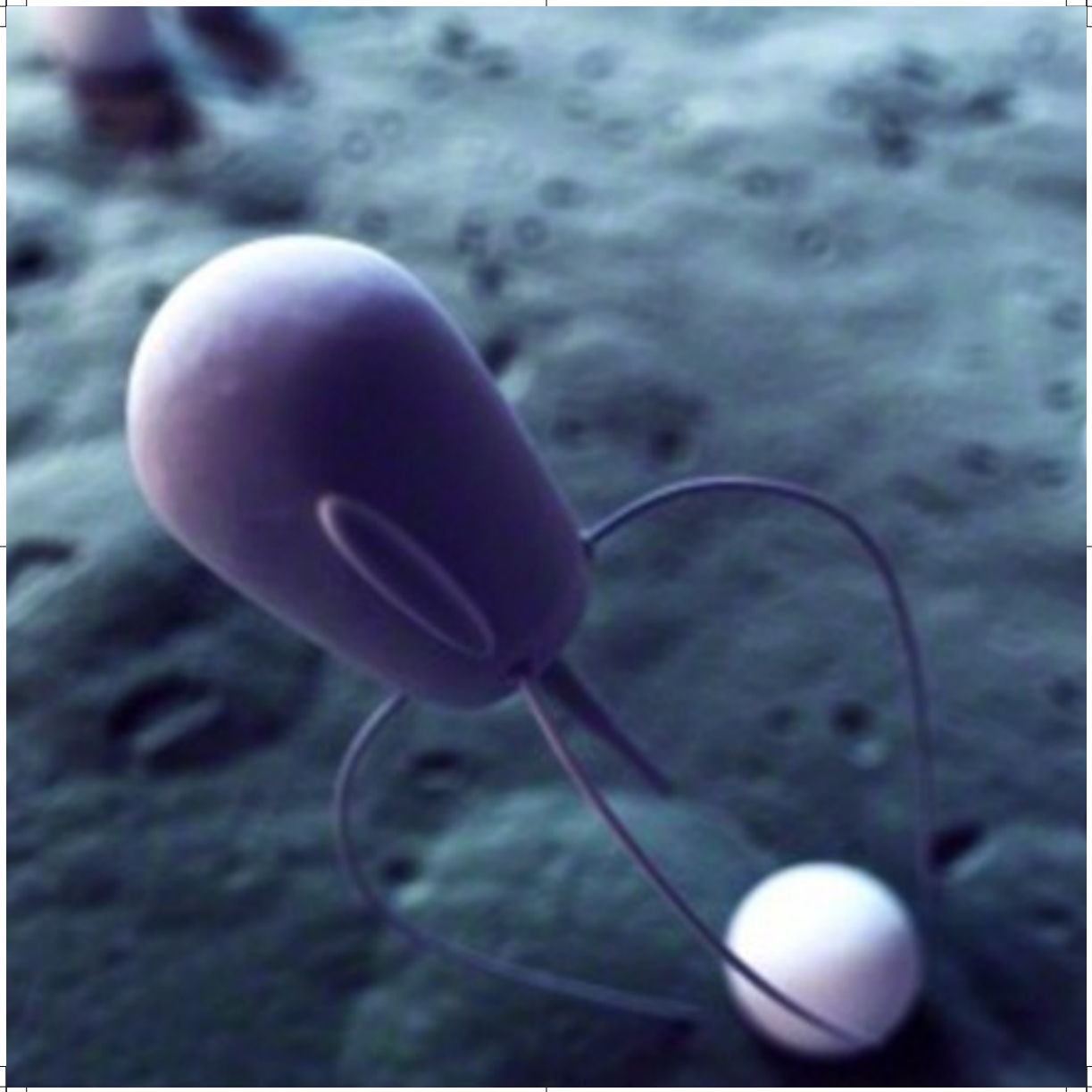
The Gempei War(1180-1185) is a conflict between the Taira and Minamoto, which are two of biggest clans in Japan at that time.
Nasu no Yoichi was an archer of Minamoto ally.
The enemy Taira placed a fan atop a pole on one of their ships, daring the Minamoto warriors to shoot it offf.
Sitting atop his mount in the waves, his target atop the ship rocking as well, however, Nasu was so skilled not only at shooting an arrow, but also at manipulating a horse that he shot it down with only one shot.

Prosthetic Leg

This prosthetic leg was designed by Yamanaka Shunji, Japanese designer.
This aesthetically pleasing artificial limb was designed for sports use, such as Paralympic athletes and artificial limb specialists.

Shenu designed by Takram

Shenu is a series of artificial organs designed to conserve the amount of water necessary to sustain human life.
It responds to the brief given by an exhibition at dOCUMENTA(13) where Takram was tasked to design a water bottle in a hypothetical, dilapidated earth environment a hundred years in the future.
They speculated what if the amount of water coming out of body can be minimised in a world where the water supply is limited.
Answering this question, they designed the artificial organs which enable us to save the use of water.



Nanobot in the brain by Ray Kurzweil

Ray Kurzweil, who is a Director of Engineering at Google, made prediction on human being future.
In the 2030s, as he predicted, we are going to have nano-robots in our brain that will provide full immersion virtual reality from within the nervous system and will connect our neocortex to the cloud.

The Institution of Isolation by Lucy McRae

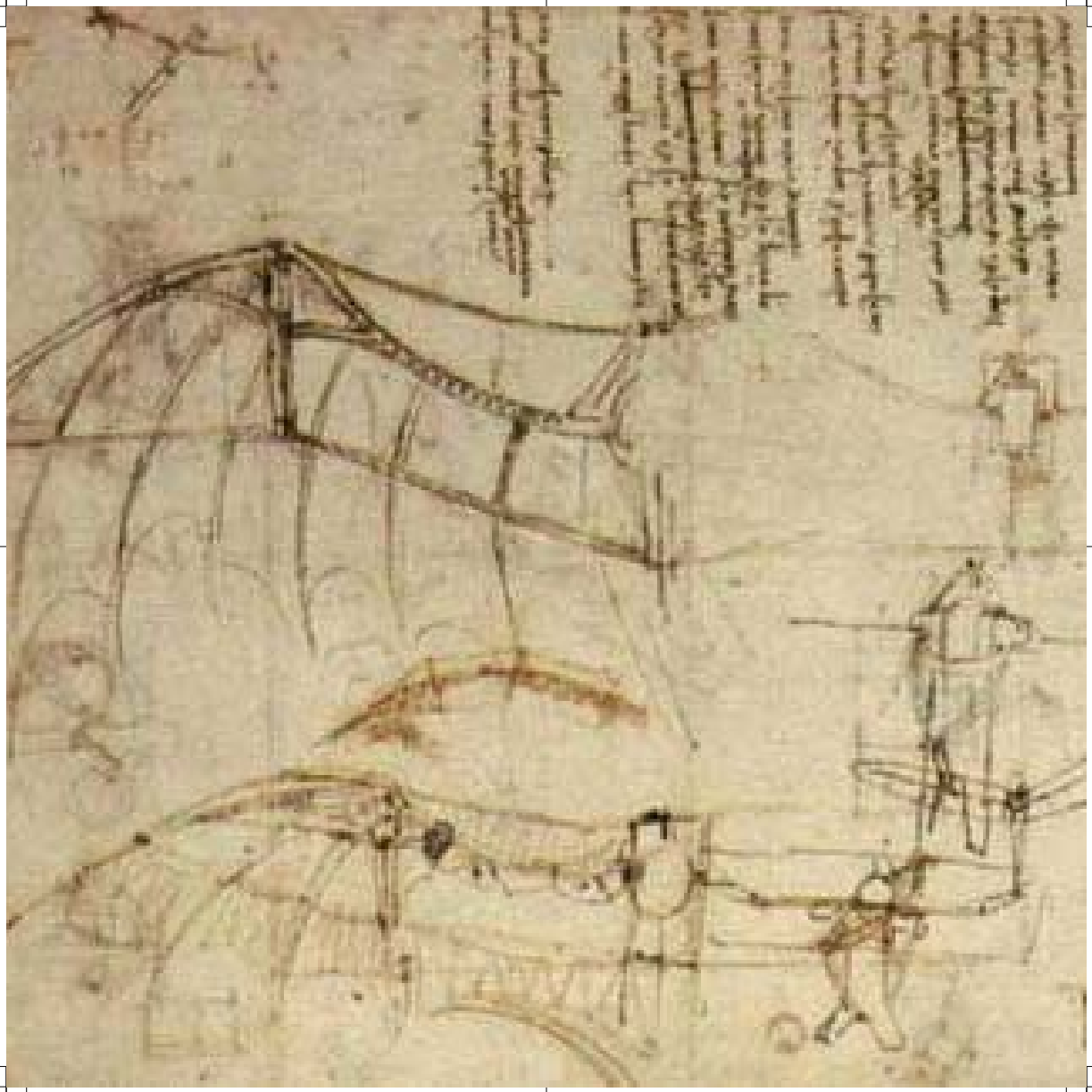
The Institute of Isolation is a short film exploring the body beyond Earth's edge, following Lucy McRae as she tests the effects that extreme experience could have on evolving human capacity.
From the microgravity trainer that conditions the body for a possible life in space, to time spent in an anechoic chamber exploring the psychoacoustics of silence, a series of sensory chambers simultaneously challenge her body and brain on her plight to adapt.
The film is based on the premise that we are in a different phase of evolution - driven not just by nature, but human intent.
In her self-reflexive narrative, Lucy contemplates if isolation could be designed to augment fundamental aspects of human resilience.

Augmented Hand Series by Golan Levin, Chris Sugrue and Kyle McDonald

The "Augmented Hand Series" is a real-time interavtive software system that presents playful, dreamlike and uncanny transformations of its visitors' hands.
It consists of a box into which the visitor inserts their hand, and a screen which displays their 'reimagined' and 'malformed' hand - for example, with an extra finger, or with fingers that move autonomously.
Critically, the projects's transformations operate within the logical space of the hand itself, which is to say: the artwork performs "hand-aware" visualisations that alter the deep structure of how the hand appears.

Metalosis Maligna by Floris Kaayk

Floris Kaayk depicts the irony and sadistic effects of a technological overadvance.
Metalosis Maligna is a documentary about a disease that affects patients with medical implants.
This phenomenon occurs when a metal implant interacts badly with human body tissue, causing the metal to grow tendrils, which eventually puncture the skin from within and destroy it.
The movie shows the development of the disease from its early stages through to the gory advanced stages, by which point entire sections of flesh have fallen away and all that is left is a skeleton of scrap metal.



Design sketch of a glider by Leonardo da Vinci

Leonardo discovered the vortices that are produced off the wings, and observed the alulae, of "thumbs" of the wings.
In the glider drawing, the flyer's position is studied at the point where he is balanced through movements of the lower part of the body.
The wings, modelled upon those of bats and birds of large wingspans, are fixed on the inboard portion (next to the flyer), and mobile at the external portion.
This part of the wing in fact can be moved by the flyer by a control cable connected to handles.
Leonardo arrived at this solution by studying the wing structure of birds and observing that the inboard part of their wings move more slowly than the outboard, and that therefore serve to thus sustain themselves and produce forward thrust.

Third Hand by Stelarc

A mechanical human-like hand that is attached to his right as an additional hand.
It is made to the dimensions of his real right hand.
The Third Hand has come to stand for a body of work that explored intimate interface of technology and prosthetic augmentation - not as a replacement but rather as an addition to the body.
A prosthesis not as a sign of lack, but rather a symptom of excess.

The Audio Tooth Implant by Auger Loizeau

The Audio Tooth Implant is a radical new concept in personal communicaiton.
A miniature audio output device and receiver are implanted into the tooth during routine dental surgery.
These offer a form of electornic telepathy as the sound information resonates directly into the consciousness.
This consists of three separate elements - a low frequency receiver(150kHz), a piezo electric micro vibration device and an electro magnetic micor generator.
The tooth communicates with an array of digital devices, such as mobile telephones, radio and computers.

Productivity Future Vision by Microsoft

Microsoft showed us the future vision video in terms of how the computer system will evolve and how the computer changes our life styles.
Their perception of the future of productivity relies heavily on mobile and holographic technology.
Plenty of super-thin tablet devices, as is in the picture above, sppear throughout the video, and people are shown wearing earpieces multiple times.

Eyeborg by Neil Harbisson

Harbisson, who was born completely colour blind, apparently implanted the device to help him "hear" colour.
Thanks to his implant's cybernetic abilities, he is able to see his greyscale world in a whole new way.
"Each colour has its own vibration," he says practically.
"This vibration can be felt inside the bones, and then it becomes sound to your inner ears, allowing you to hear the sound of colours."

Magnetic Implant

A magnet in our fingers would allow us to sense magnetic fields, pick up tiny metal objects and determine whether metals are ferrous.
This body implant is also useful for people who work with electonics.
You would be able to feel the live wires versus the dead wires.

Grass Processor by Anthony Dunne and Fiona Raby

We need to produce 70% more food in the next 40 years according to the UNI.
Yet we continue to over-populate the planet, use up resources and ignore all the warning signs.
For this project Dunne & Raby look at evolutionary processes and molecular technologies and how we can take control.
The assumption is that governments and industry together will not solve the problem and that groups of people will need to use available knowledge to build their own solutions, bottom-up.
They speculate a series of devices which eneble us to gain energy of and make efficient use of natural resources.

Videodome by Garnet Hertz

Videodome is custom helmet system by Garnet Hertz that creates surreal and frenetic video footage of your face.
It uses sixteen micro video cameras mounted inside of a clear helmet, with a video switching system that rapidly rotates between cameras.
Because all cameras point toward the face, the vantage point spins around the person's nose.
Completely analog, the system is a "cutting-edge old school mediated sensation" (Shwartzman) that resembles a paranoid or narcissistic surveillance: a "panicked Street View of the face" that is part Lady Gaga and part scientific imaging contraption.