CROSSING THE DEADLINE

MISSION STATEMENT

MISSION ETERNITY is an information technology-driven cult of the dead. etoy.CORPORATION digitally sends M∞ PILOTS across the ultimate boundary to investigate afterlife, the most virtual of all worlds. The plan is to install a community of the living and the dead that reconfigures the way information society deals with memory (conservation/loss), time (future/presence/past) and death. Under the protection of thousands of M∞ ANGELS (the living) the PILOTS (the dead) travel space and time forever.

DISCLAIMER

MISSION ETERNITY does not provide meta physical solutions.

MISSION ETERNITY is not a commercial service available in the market place.

M∞ is art and therefore limited to a special audience that is qualified and entitled to participate in this sensitive project. As other cults M∞ serves the cultural needs of a community that invests resources into a fundamental update of one of the most essential aspects of human life: dying.

etoy.CORPORATION, the creator of M∞, does not provide services to everybody but offers source code and documentation to the public. Every individual and organiza-tion is free to create its own cult based on free M∞ MODULES (terms & conditions are specified in seperate documents).

etoy.CORPORATION goes where traditional artists,
companies and individuals cannot afford or risk to go.

The dead continue to exist as biomass and
traces in the global memory.

SUMMARY

Independent of religious beliefs and scientific speculations, MISSION ETERNITY explores life after death. The operation is based on facts: all we know for sure is that we leave behind mortal remains and a massive body of information.

The dead continue to exist as biomass and traces in the global memory: in governmental data-bases, in family archives, in professional records, and in emotional data stored in the bio-memory of our social network.

At the heart of MISSION ETERNITY stands the creation and ultra-long-term conservation of M∞ ARCANUM CAPSULES, interactive portraits and digital communication systems for human beings facing death (M∞ PILOTS).

The M∞ ARCANUM CAPSULES contain digital fragments of the life, knowledge and soul of the users and enable them to maintain an active presence post mortem: as infinite data particles they forever circulate the global info sphere – hosted in the shared memory of thousands of networked computers and mobile devices of M∞ ANGELS, people who contribute a part of their digital storage capacity to the mission.

etoy.AGENT VINCENT recording voice samples of TEST PILOT Arnold
Wechsler at Burning Man 2005 / Black Rock Desert / Nevada

MISSION STRATEGY

To reach the mission target, etoy.AGENTS approach the «memory issue» from an artistic, from a technical and from an emotional perspective. Only the complex combination of the three view points can lead to valuable results.

etoy assembles and launches M∞ ARCANUM CAPSULES, standardized digital data collections representing a human being. The capsules are a new and interactive form of artistic portrait that includes precisely defined visual information, voice samples, messages of the user to the afterworld, social network maps, and much more. The content of the capsule is dynamic but carefully curated. It is designed and registered to assume its own life in the future and to accumulate cultural value.

In parallel etoy releases M∞ ANGEL APPLICATIONS, open source software that makes it easy to distribute the capsules among thousands of people who help to host the digital legacy on their personal computers

and mobile phones. The code cross checks and compares versions and organizes the capsules independent from a central server. Open licensing structures, strict documentation and non-proprietary standards guarantee the portation to future platforms and networks.

Strong social and emotional links between the involved people (family ties, friendship, personal or public interest) and the artistic value of the capsules and their manifestations increase the chance for long term existance of the project and its data in the public domain (capsules) as well as in art collections and museums (art work displaying the data).

MISSION ETERNITY

ARCANUM CAPSULE PLAN

INTERACTIVE MULTIUSER SARCOPHAGUS 1.0   v.1.7 draft / 2005.11.25 (zai)

= REQUIRED DATA FOR EACH CAPSULE
= INPUT
= OUTPUT

ACCESS LEVELS:
= PUBLIC ACCESS (NO ENCRYPTION)
= CREW ACCESS (PGP ENCRYPTED)
= SYSTEM ACCESS (PGP ENCRYPTED)
= USER ACCESS ONLY (PGP ENCRYPTED)

BLUE TOOTH WLAN

OUTPUT: TOTEM, WEB/WAP, PHONE, EMAIL ATTACH., RADIO etc.

ARCANUM CAPSULE META DATA
INTERVIEWING AGENT
WITNESSING AGENT
Specifications,
date of arc. caps. creation
location ... etc
SETUP notes

cpu

PARTICULARS (ID / PERSONALIEN)
Name, Date of birth, fam. & legal contacts, notar,
M.R. CODE (2D barcode) RFID CODE etc...

LEGAL DOCUMENTS
testament, contract/agreement with family
creative commons license, ...

CONTACTS
Family, Friends,
Lawyer, Notar

TEXT / SMS FORMAT (160 CHAR.)
i.e. sms biographie/cv, ...
shortmsg to the next generations

META .txt
howto readme .txt
CONTRACT TESTAMENT .txt
ADDR. BOOK .txt
?.txt

OUTPUT: SMS, WAP/WEB
SOCIAL NETWORK
mapping family & friends

CV
SMS .txt
MSG
LAUGHTER SCREAM mp3

VOICE OF USER (imagine you are dead)
i.e. talking to him/herself, reading a poem ... wispering
calling names, words like why, i was, i am, i will be...
welcome / goodbye msg / "guide" in the system

CONSUMER PROFILE
including brands etc.

BREATH .mp3
VOICE .mp3
?.mp3
.mp3

VOICES OF FRIENDS & FAMILY
i.e. speaking words, the name, singing (abstract!)

REVERSED VIEW (VIEW POINT OF USER)
new kind of portrait

USERS VIEW
(not picture
of user)
.format ?
?.mpg

USER

COUNTING .mp3
DNA

MUSIC (wish list, itunes, etc...)
legal: time dimensions & copy rights dont matter

360° SHOT
QUICKTIME VR
special installation
"scanns" the user

TURNING PLATFORM

3D USER .qvr

PARTICULARS (I.D.) .txt

SOUND GEN. .mid / ...

PERSONAL OBJECT(S)
max. 0.5m³

USER leaves DNA sample and OBJECT(S)
i.e. a hair (DNA), a ring, keys, pen, glasses,
stamp collection, passport, watch, stone ...

OUTPUT: next to URN in MRT

SYMBOL .eps
.jpg
.jpg
?

POST MORTEM
ACTIVITY PLAN
SOCIAL SOFTWARE
CMS / BLOG

INPUT / OUTPUT: GEO- & INTERNET

PRODUCTS
reg. consumed goods

.gif
SCRIPTS
?
PICS
.jpg
.jpg
.jpg
.jpg
ACTOR NETWORK
e mailer

OTHER ARC. CAPS.

together the USER and an AGENT
create the symbol based story of
the live of the USER (M.E. SYMBOLS!)

OUTPUT: (ORANGE) LASER PROJECTION, WAP/WEB, ...

M.E. XML
extended markup language
guarantees max. long term
access & exchange of data

DOCUMENT SCANN
identification document

TOOL
professional object

SOCIAL NETWORK
pictures of family & friends

PHOTO OF USER
required: precise pictures according to protocol (face, body etc.)
pictures of USER (from baby to old person / every 10 year)
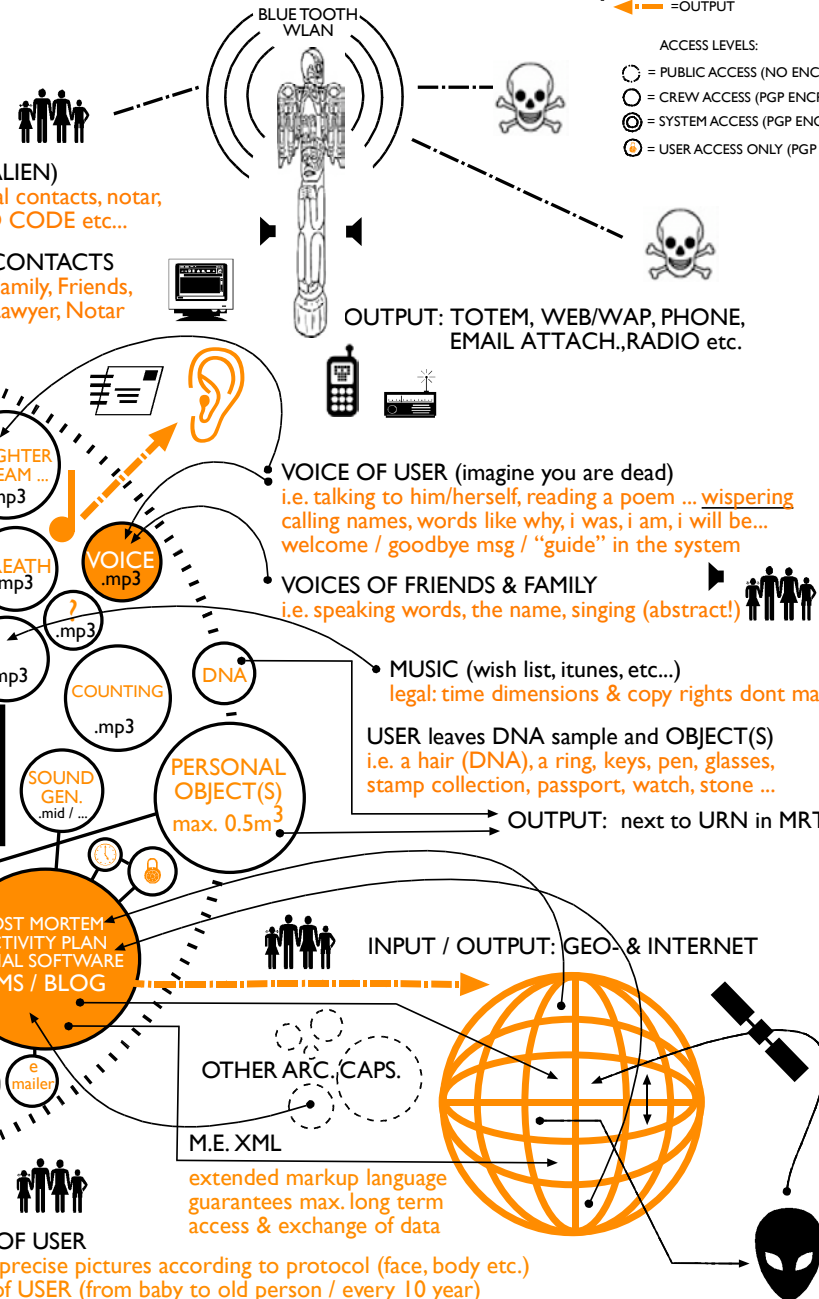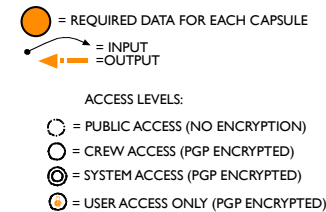
ARCANUM CAPSULE

The ARCANUM CAPSULE is a unique, digital portrait of a M∞ PILOT - a data package that travels space and time forever.

The launch of an ARCANUM CAPSULE requires the active presence of a living PILOT and follows a standardized procedure that includes the completion of the M∞ ADMISSION FORM, a series of photo sessions, voice and video recordings etc. The encapsulation involves interaction with etoy.AGENTS to devise the POST MORTEM PLAN, which is a substancial part of an ARCANUM CAPSULE.

The online procedure leads to the auto-matic generation of an M∞ XML file which is the technical base of each ARCANUM CAPSULE.

TEST PILOT KEISER with etoy.AGENTS:
ZAI (CEO) & HAEFLIGER (IR) trying to capture the essence of human life

TEST PILOT MR. KEISER, BORN 1923 IN ZUG
MICRO FILM PIONEER, BUSINESS MAN, ACTOR

Between summer 2005 and winter 2006 the M∞ GROUND-CREW collected and scanned official documents, personal photographs, interviews, voice samples and job related material of the first TEST PILOT. In hundreds of hours of research, many live sessions with Mr. Keiser and post production etoy studied the nature and architecture of the infosphere generated by the TEST PILOT during the first 83 years of his life.

Results: a M∞ ARCANUM CAPSULE (a digital file of ca. 1 GigaByte) and a contract between the PILOT and etoy.CORPORATION that regulates the transfer and integration of the PILOTS's mortal remains into the MISSION ETERNITY SARCOPHAGUS.

CAPSULE ID: F71834AA6A9A6586
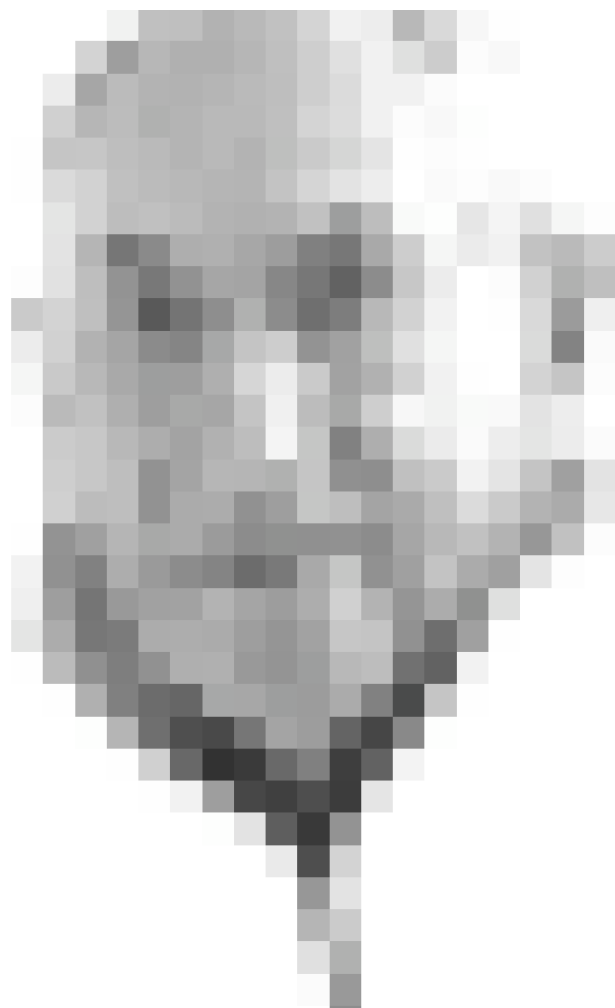
Table of Contents

ARCANUM CAPSULE / table of content: XML File
with information provided by the TEST PILOT

M∞ DISPLAYS are based on low resolution images (32 x 32 and 32 x 80 pixels) to avoid misunderstandings: MISSION ETERNITY is about memory. The Project is not about copying or cloning life in cyberspace. To remember is at least as much about forgetting details as it is about storing data. Resolutions change.

The visualizations of PILOTS play with distance, loss, focuse and the human brains very special capacity to compensate missing parts of individual faces.
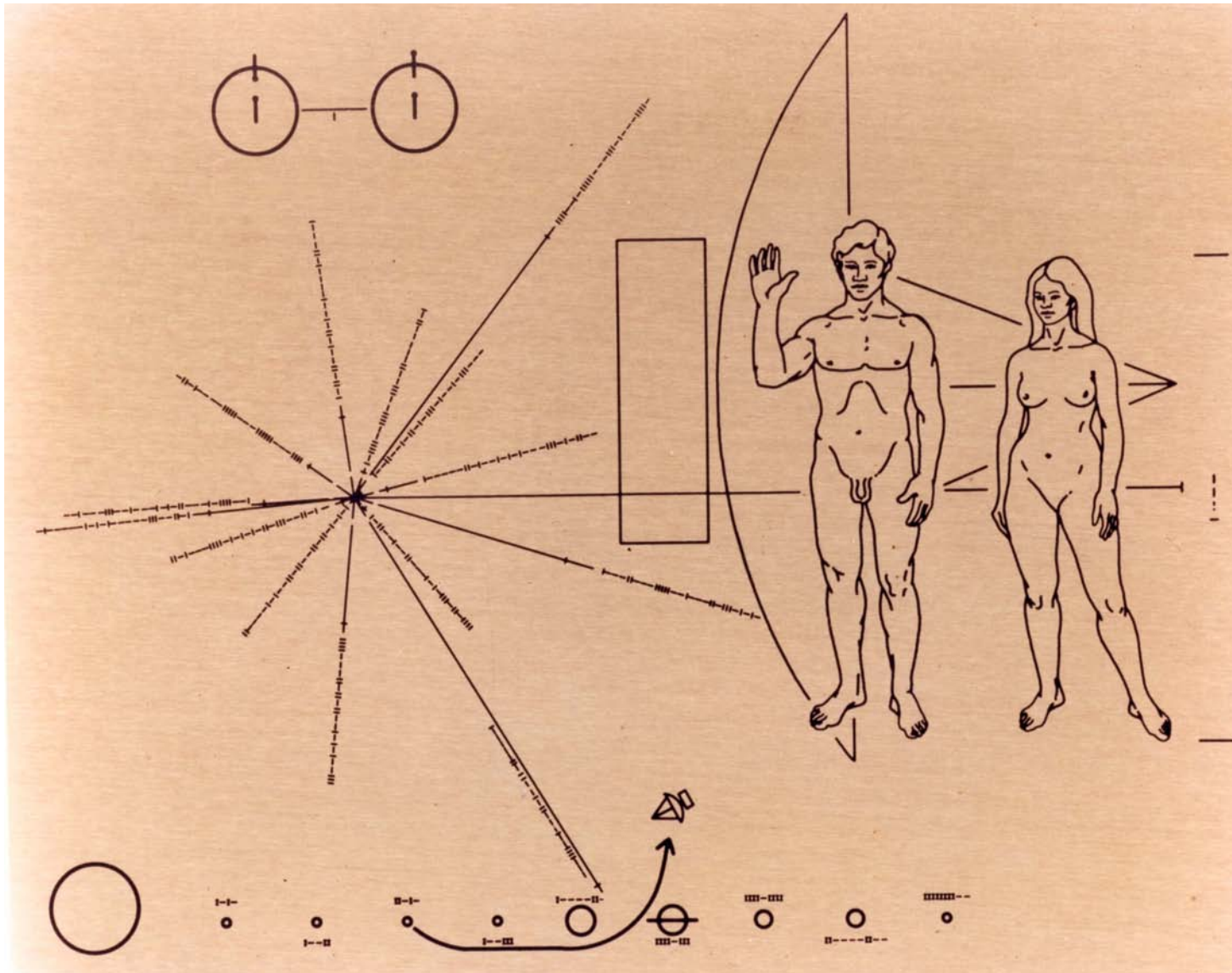
Plaque on satellite "Pioneer 10", launched by NASA in the year 1972 - the first human artifacts that venture beyond the solar system (today more than 8 billion km away from planet earth). Each symbol on the plaque is intended to tell alien intelligences about human race. Source: NASA.GOV

LONG TERM STORAGE

MISSION ETERNITY is a social memory system to maximize longterm existence and visibility of ARCANUM CAPSULES. M∞ must be maintained by thousands of independent individuals, so called MISSION ETERNITY ANGELS, who contribute a small part of their digital storage to the project, who build new M∞ TRANSPONDERS (output channels for ARCANUM CAPSULES) and who make sure that thier children or friends participate and pass on M∞ to the next generation.

The resistant data architecture is not based on highend storage hardware but on massive public distribution & redundancy. Emotional involvement of M∞ ANGELS (the hosts and protectors of M∞ DATA), sustainable documentation, components and codes in open formats (RSS, free software, Creative Commons), various legal strategies including a public trust, financial securities and stable backup partners (art collections, libraries and governmental archives) maximize the life span and accessibility of MISSION ETERNITY.

Therefore M∞ is built on free software and public licenses to guarantee the flow of knowledge and data required to keep the M∞ PILOTS and the Project alive.

M∞ will only be functional if it becomes a cult that is deeply embedded in a community of at least 1000 Angels on different continents. To reach this goal M∞ depends on artistically strong TRANSPONDERS: manifestations displaying, broadcasting, linking and transforming MISSION ETERNITY CONTENT (ARCANUM CAPSULES).

M∞ is smart dust in art history

SHORT TERM GOALS
(2005 - 2016)

In the first phase 23 etoy.AGENTS work on three pillars: M∞ ANGEL APPLICATIONS (desktop tools to share ARCANUM CAPSULES in P2P networks), M∞ PERMA SEEDERS (internet servers that distribute ARCANUM CAPSULES as wide as possible) and M∞ BRIDGES (objects that infiltrate art history and serve as output devices for ARCANUM CAPSULE DATA).

a) M∞ ANGEL APPLICATION: etoy is developing software which allows the smart and easy sharing of private memory resources to distribute and host ARCANUM CAPSULES on mobile phones and networked computers. This solution secures a high distribution factor (minimal risk to lose data) and involves a large community in guarding the ARCANUM CAPSULES. The M∞ANGELS and their devices become the hosts of the digital ghosts - the remains of dead people.

b) M∞ PERMA SEEDERS: etoy installs a stable institution (M∞ FOUNDATION) that runs PERMA-SEEDERS on all continents.

The servers constantly spread ARCANUM CAPSULES and necessary information into the internet. As soon as the redundance-factor of a capsule falls below a specific level the system starts to reorganize/redirect ARCANUM CAPSULES among the available memory and triggers an automatic campaign mechanism (informing other M∞ ANGELS of the problem, buying advertisement space to recruit angels etc). As all code and each particle of the system is licensed under a creative commons license, people all over the world are free to run their PERMA-SEEDER-MIRROR (a Debian package is planned to hit the net in spring 2008).
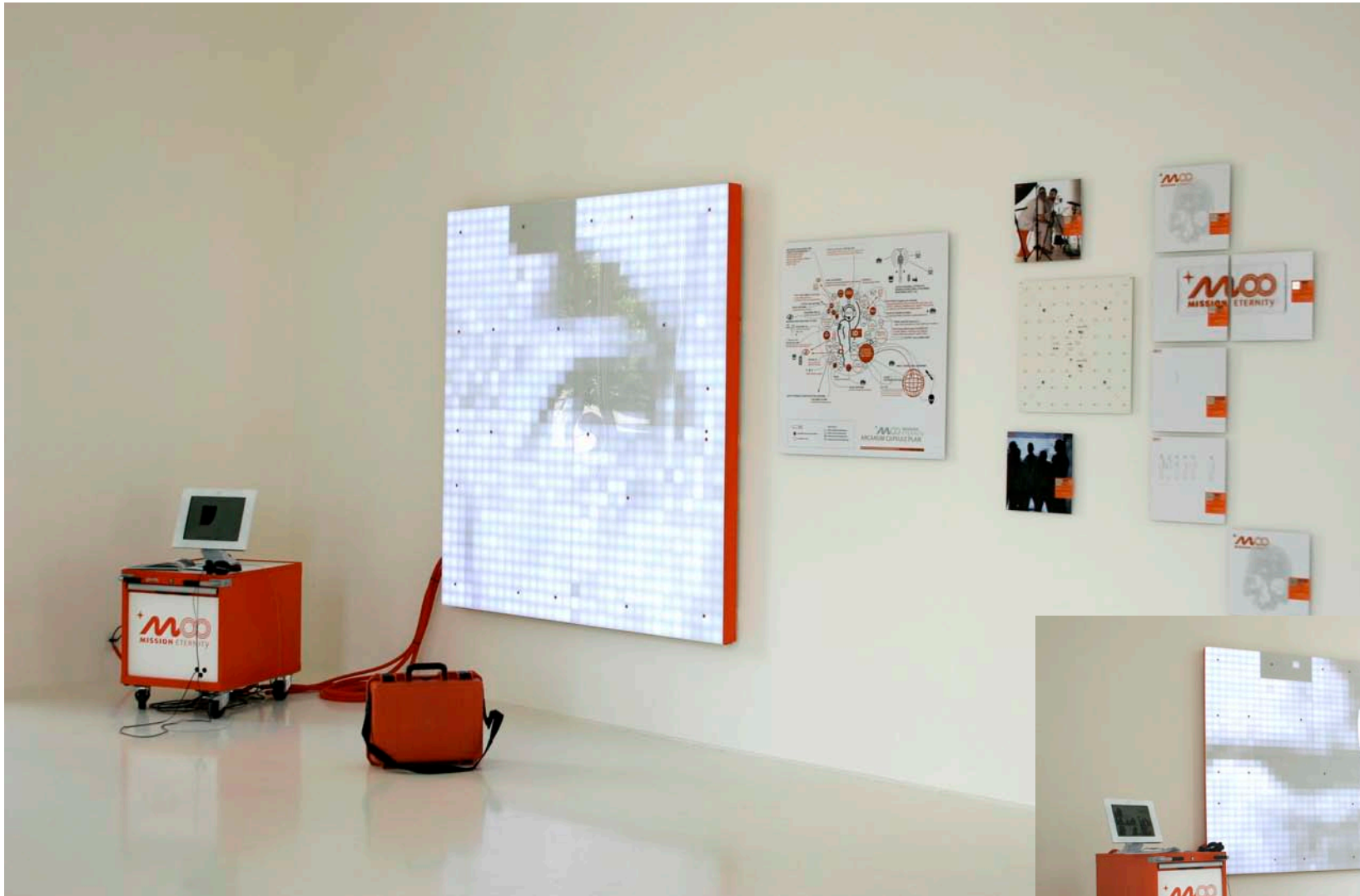
M∞ BRIDGE #1: MISSION CONTROL permitting access to the digital remains of M∞ PILOTS.
Exhibited in August and September 2006 in Helmhaus Zurich (Kunststipendien der Stadt Zuerich).

Material: M∞ DISPLAY (2 m x 2 m) outfitted with 2'048 high power LED pixels and LISTA server wagon including voice control, LCD screen.
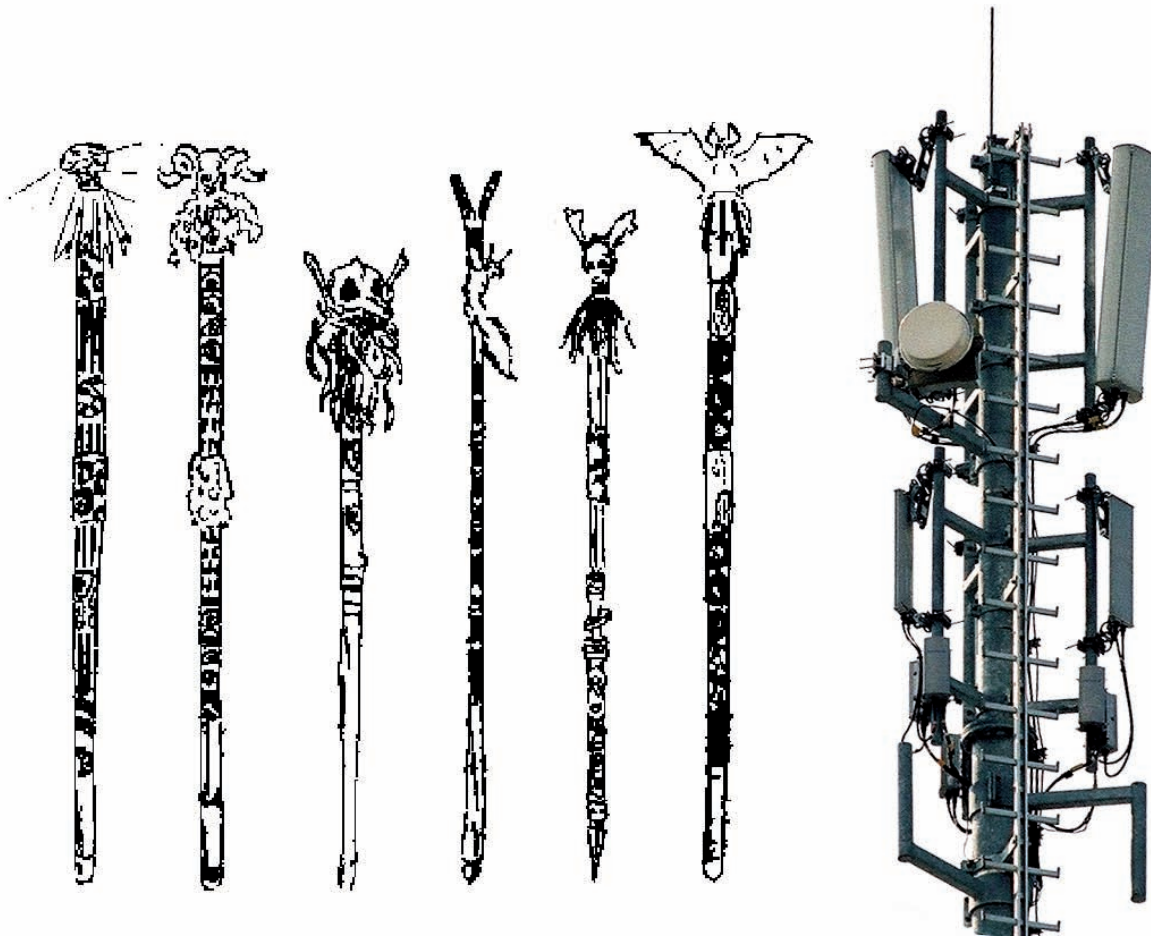
BRIDGE: The word refers to a structure built so that a transportation route can cross above an obstacle. In network technology a bridge is a device that connects network segments at the physical layer. In electronics a bridge is an electronic circuit for converting alternating current to direct current. And in Music a bridge is an interlude that connects two parts of a song. MISSION ETERNITY BRIDGES connect the living and the dead.

c) M∞ BRIDGES: the objects technically and artistically link physical and memory space. The M∞ BRIDGES exploit the traditionally stable and well organized structure of art collections, libraries and museums to host and display ARCANUM CAPSULES on a long run. Innovative technology and artistic quality guarantee high cultural value and therefore care. The plan is to outsource conservation to protected environments and experts financed by governments, foundations and private collectors.

The first BRIDGE-SERIES is dominated by visual output (SARCOPHAGUS and MISSION CONTROL DISPLAYS) and close to traditional art forms. The second series is based on antenna principles: broad-casting radio signals (voices of M∞ PILOTS), WLAN and cell phone content. They will introduce a new generation of public interactive art. Other BRIDGE-SERIES will follow within the next 11 years.
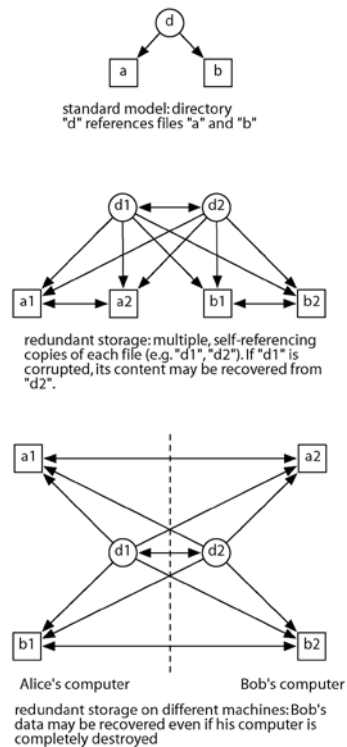
M∞ SOFTWARE SPECIFICATION

The ANGEL-APPLICATION is designed to provide MISSION ETERNITY with secure, affordable, easy-to-use, ultra-long-term storage. etoy is currently experimenting with a functional prototype (source code available under the GNU Public License).

The software enables users to collaboratively store redundant copies of ARCANUM CAPSULES (as well as each other's data) in encrypted form. This effectively forms a social file system which provides safe, reliable, globally accessible storage for anyone willing to participate. Ease of use is provided by hiding most of the complex, networked environment behind standard network-storage interfaces (WebDAV at this time).

Due to the widespread availability of broadband internet access a new class of storage solutions has recently received significant attention by the academic community: redundant, self-replicating, distributed, community-driven (peer-to-

peer) file systems [1-3]. Here, the central idea is that users can collaborate to form a shared storage space, consuming the storage they need and providing the storage they don't need to other users.

By ensuring that multiple (encrypted, checksummed) copies of each file are stored in different locations at any given time, and autonomously replacing corrupted copies, expected data lifetimes can be extended to arbitrary time-scales (de facto hundreds to thousands of years, rather than the 3-5 years of current standard storage media) while incurring only a logarithmically scaling storage and communication overhead. Additionally, a suitable algorithm should be able to

standard model: directory "d" references files "a" and "b"

redundant storage: multiple, self-referencing copies of each file (e.g. "d1", "d2"). If "d1" is corrupted, its content may be recovered from "d2".

Alice's computer   Bob's computer

redundant storage on different machines: Bob's data may be recovered even if his computer is completely destroyed

autonomously balance requirements and capacity between individual users -- the system capacity (storage space and bandwith) and requirements should grow synchronously.

While several projects are based on the same strategy etoy.CORPORATION was not able to find an existing solution that solves the needs of MISSION ETERNITY (->P.31).

Since a few months etoy.AGENTS work on their own implementation, which is not just a technical solution but also an attractive social / cultural environment: at least as important as the working back end is the strong link between people sharing backup storage capacity. The style as well as the «story behind» the system can help to maintain and improve the social glue among users.

References:
[1] Kubiatowicz et al., «OceanStore: An Architecture for Global-Scale Persistent Storage» http://oceanstore. cs.berkeley.edu/publications/papers/ pdf/asplos00.pdf, U.C. Berkeley Technical Report, 2000, http://oceanstore.cs.berkeley. edu/

[2] L. P. Cox and B. D. Noble., «Pastiche: making backup cheap and easy.», Fifth USENIX Symposium on Operating Systems Design and Implementation, December, 2002, Boston, MA, http://mobility.eecs. umich.edu/pastiche/pastiche.html .

[3] Landon P. Cox and Brian D. Noble. «Samsara: Honor Among Thieves in Peer-to-Peer Storage» http://mobility.eecs. umich.edu/pastiche/papers/sosp03.pdf. In the 19th ACM Symposium on Operating Systems Principles. Bolton Landing, NY, October 2003
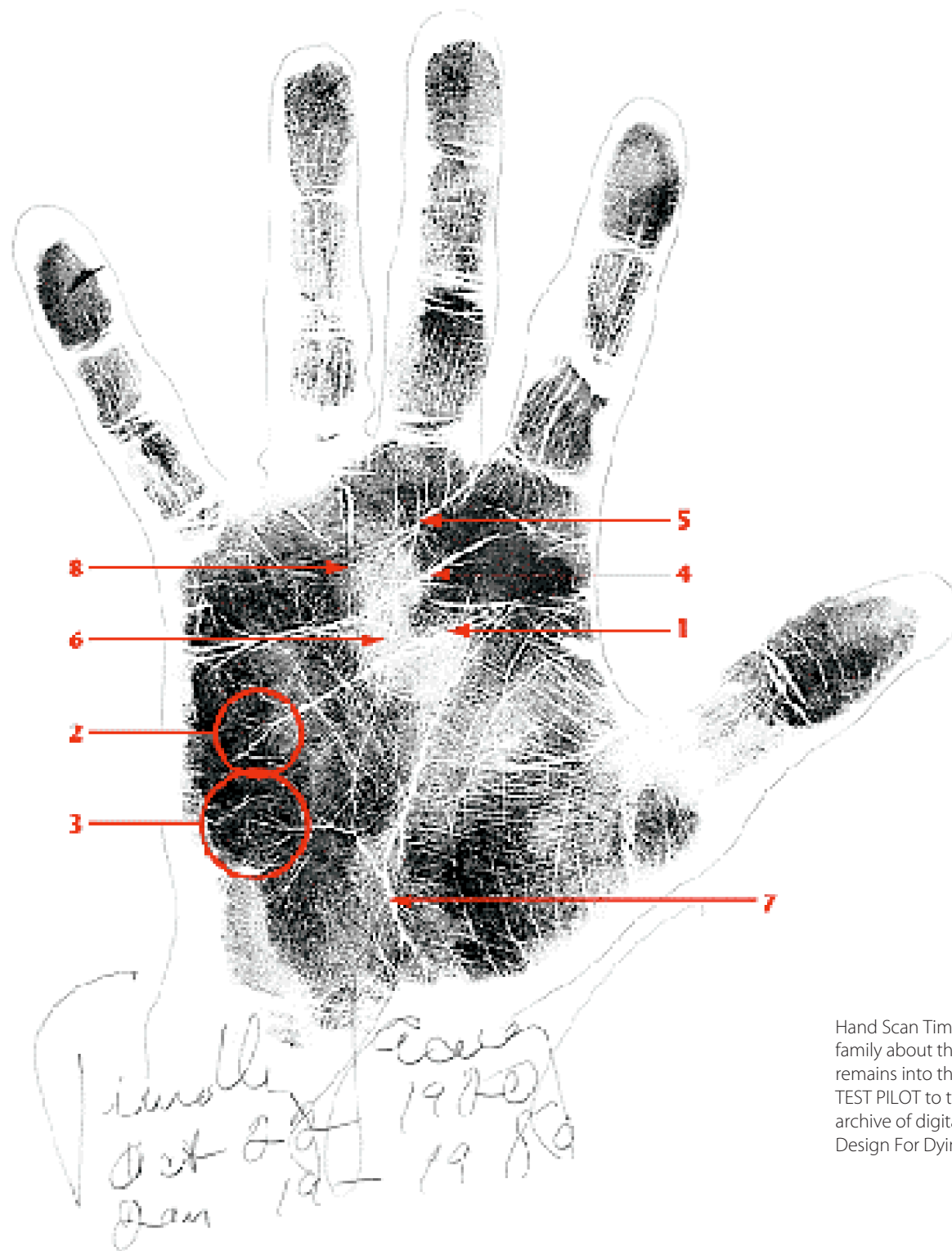
Hand Scan Timothy Leary: etoy currently negotiates with the Leary family about the integration of the pioneer's data and mortal remains into the MISSION ETERNITY SYSTEM. Mr. Leary is a good TEST PILOT to travel space and time forever because he left a huge archive of digital fragments and studied the topic in his last book Design For Dying, HarperCollins Publishers (May 1998).

IMPLEMENTATION ANGEL-APP

The ANGEL-APP prototype is implemented in Python2.3, using the twisted matrix library for networking and the extended filesystem attributes (xattr) for metadata storage (cryptographic keys, signatures, file references). It currently runs on Mac OS X and Linux, and is available at http://angelapp.missioneternity.org .

No readily accessible, easy-to-use implementation of the required system currently exists. It seems plausible to assume that this is at least partially due to the following reasons: (i) the system does not provide a single point of control (e.g. a server of some sort), since that would correspond to a single point of failure, (ii) the source code of the system must be accessible in order for the system to be sufficiently trustworthy to be used for long term storage (it seems unreasonable to rely on e.g. a company which might go bankrupt anytime), (iii) the system must be extremely easy to use in order to be viral and attract a sufficient number of users.

Together, these reasons effectively prohibit the development of such a system in a commercial environment, since it is virtually impossible to sell the system as a shrink-wrapped software package(must be open source), or to provide a commercial on-line service (no centralized server). Academia, on the other hand, seems to only show a moderate interest in producing a sufficiently polished product after having described the key concepts in great detail.

Finder File Edit View Go Window Help

32 x 32 Pixels

SYSTEM X

LOCAL
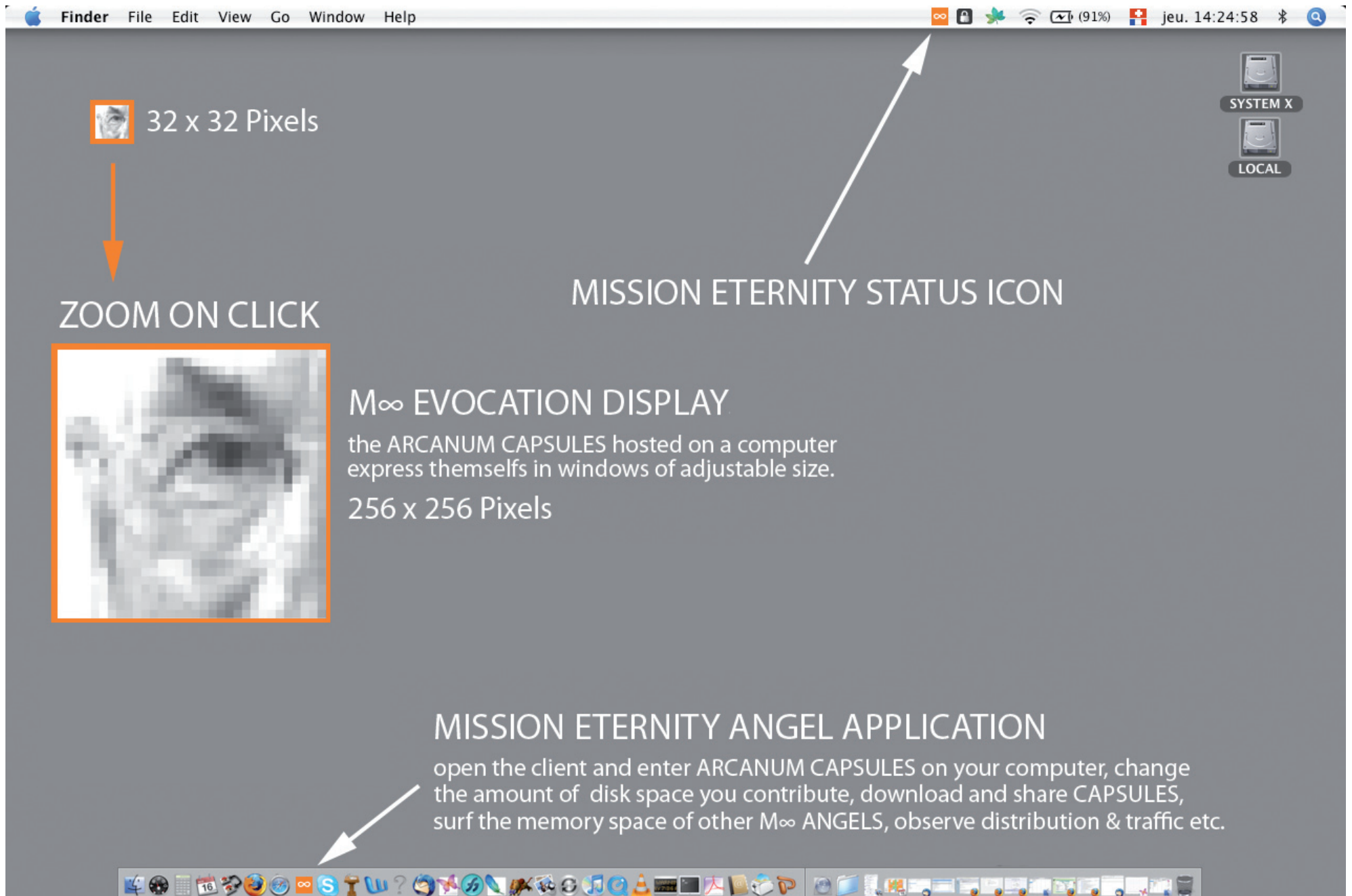
MISSION ETERNITY STATUS ICON

ZOOM ON CLICK

M∞ EVOCATION DISPLAY

the ARCANUM CAPSULES hosted on a computer express themselfs in windows of adjustable size.

256 x 256 Pixels

MISSION ETERNITY ANGEL APPLICATION

open the client and enter ARCANUM CAPSULES on your computer, change the amount of disk space you contribute, download and share CAPSULES, surf the memory space of other M∞ ANGELS, observe distribution & traffic etc.

The primary goal for the ANGEL-APP has been to provide easy to use redundant storage. This goal is within reach. It should be noted that the current implementation may be seen as the first step towards a distributed, scalable, transparently accessible (i.e. full support for native file system semantics) data storage and distribution system. The decoupling from the physical storage medium introduced with the ANGEL-APP implies that in principle unlimited amounts of data can be stored and retrieved from the system without any a priori disk-space or bandwith limitation (it is similar to bittorrent in this regard, i.e. limited by the number of participants, rather than the hardware infrastructure of any individual participant). etoy actively solicits support (from developers and potential investors) to further investigate these opportunities.

EDGAR SOMMERHALDER
2.5.1912 - 3.7.2007

etoy.TANK

www.etoy.com

etoy

① ② ②

HIGH SECURITY
BACKUP / GOTTHARD

DATA ACCESS

③

Edgar Sommerhalder

www.etoy.com/ETERNITY

2D BARCODE

M∞ TAG

MISSION ETERNITY is not limited to the information space. etoy decided to add weight to the project by including the physical counterpart: the mortal remains (ash or burial place) of M∞ PILOTS. The body is the hardware of human life. Its last resting place is an emotionally strong starting point for confrontation, mourning and memorial. Cemitaries offer a rich history on which etoy can build.

The integration of mortal remains is crutial to MISSION ETERNITY: each culture searches for the most adaequate solutions to place the physical remains of its members. For etoy the information age calls for an update: the advanced combination of the physical and the intangible remains.

According to the legal agreement with the PILOT, a M∞ TAG is mounted directly on the tombstone. The M∞ TAG stores all necessary information to find and technically access the digital ARCANUM CAPSULE.

Due to the simplicity and logic of the engraved code it will be possible to locate, activate and understand ARCANUM CAPSULES - even hundreds of years after creation.

The plaque includes a simple 16 digit alpha numerical code and a 2D barcode (Semacode) that can be scanned with an optical device (i.e. camera phone) and automatically links the mobile device or computer to the EVOCATION-PORTAL, a Wap/Web site, on which the visitor can interact with the M∞ PILOT and her/his data.

F71834AA
6A9A6586

F71834AA
6A9A6586

F71834AA
6A9A6586

74.00

74.00

74.00

30.00
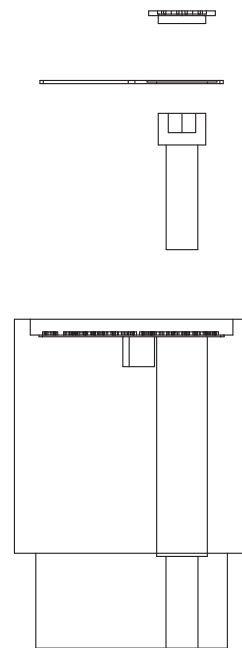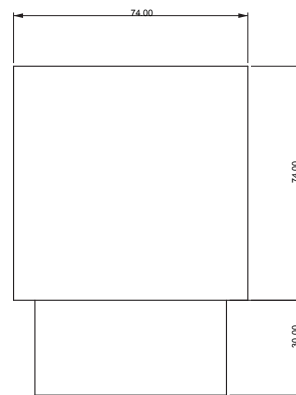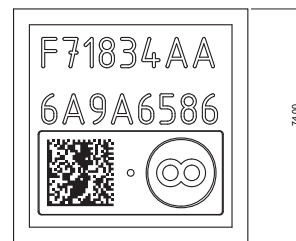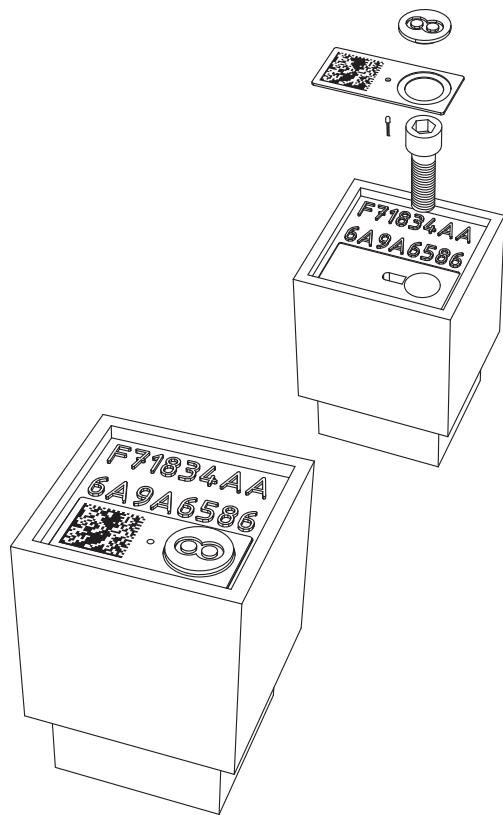
M∞ TERMINUS

Integrating the mortal remains (the hardware) of a M∞ PILOT into the system is the most consequent way to participate in the mission. The object M∞ TERMINUS becomes the last resting place of a PILOT and at the same serves as access point to connect to her/his ARCANUM CAPSULE (the digital remains). It links tangible and non tangible aspects of existence - biomass and data.

A plug-like repository stores the ashes of a M∞ PILOT after cremation: mixed with concrete the ashes (at least 0.08 Kg) shape the size of one M∞ DISPLAY-PIXEL (ca 60 x 60 x 100 mm).

One M∞ TERMINUS UNIT assumes the role of a dead pixel (replacing the light and displayed information on the screen with mortal remains) and physically links to the info space behind the most mysterious curtain.

The M∞ TAG (including alpha numerical code and semacode) identifies and assigns each M∞ TERMINUS UNIT to its ARCANUM CAPSULE online.

A status LED on each unit indicates visitor traffic and the back-up status (distribution factor) of the digital ARCANUM CAPSULE. In case of danger (data loss) the LED and a very minimal sound system generate attention and call for help.

A Team led by the young industrial designers Adrien Rovero and Augustin Scott de Martinville prepared the first beta mold which will be tested as soon as the first mortal remains are delivered.
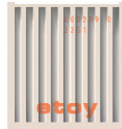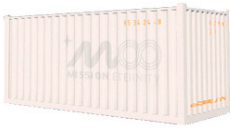
M∞ SARCOPHAGUS

The MISSION ETERNITY SARCOPHAGUS TANK is a mobile sepulcher for users who prefer to be buried at an indetermined geographical location. The mobile cemetery tank is a 20 foot ISO standard cargo container (6m long, 2.4m wide, 2.6m high, 4 tons wight) and potentially travels planet earth forever. The system allows for simple re-location of the mortal remains of up to 1000 M∞ PILOTS.

The SARCOPHAGUS is equipped with an immersive LED screen of 17'000 pixels that cover the walls, ceiling and floor on which the visitors can walk. It displays the ARCANUM CAPSULE content and functions as a public installation wherever the TANK travels. Visitors of the SARCOPHAGUS access and interact with ARCANUM CAPSULES via their mobile phones (WAP/ XHTML) or a web browser (HTML).

In addition to the visual material of the PILOTS M∞ STATUS INFORMATION is displayed: i.e. the amount of ARCANUM CAPSULES floating the info sphere, number of USERS on M∞DEATHWATCH (M∞LIFEPING) and their status (connected/ disconnected), the distribution factor of each CAPSULE, geographic information about M∞ANGELS and CAPSULES etc.

The SARCOPHAGUS was constructed between January and June 2006 in Zurich. The official release took place at the ISEA 2006 Festival in San Jose / California. It then traveled the USA (San Francisco, Nevada, New York) and later the rest of the world.
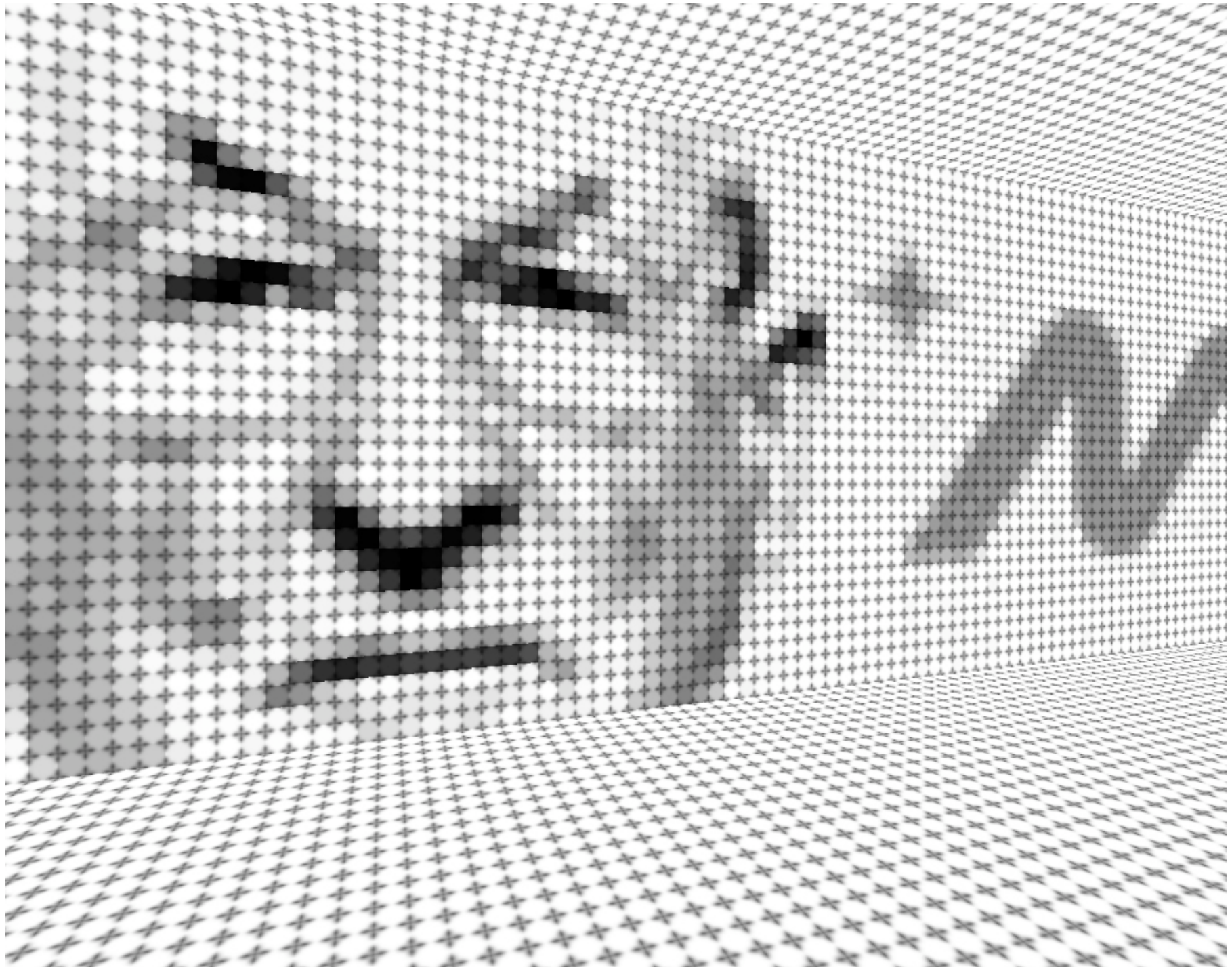
The M∞ SARCOPHAGUS is the first art installation of a large series of work (M∞ EMITTERS) that will be released between 2006 and 2016.
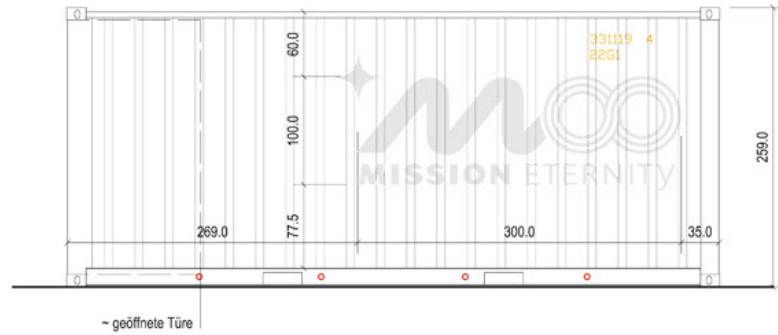
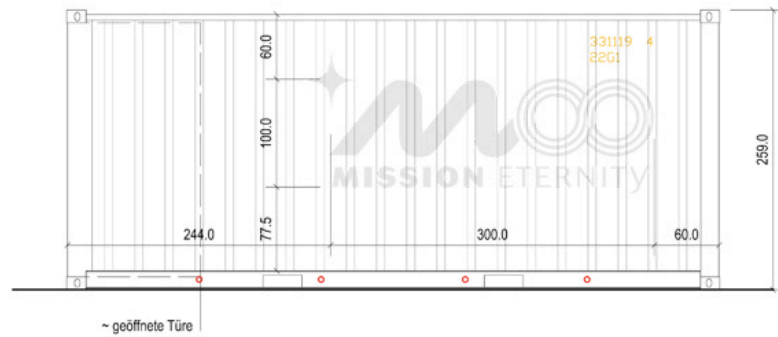etoy.AGENT MONOROM (CTO) inspecting the
M∞ SARCOPHAGUS TANK in June 2006

etoy.AGENTS VINCENT & SILVAN preparing the last layer
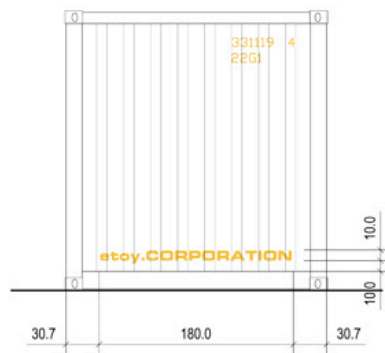of the M∞ DISPLAY before mounting 60 m2 plexi glas

60.0
100.0
77.5
259.0
269.0
300.0
35.0

331119 4
22G1

MISSION ETERNITY

Ansicht

~ geöffnete Türe

60.0
100.0
77.5
259.0
244.0
300.0
60.0

331119 4
22G1

MISSION ETERNITY

Ansicht

~ geöffnete Türe

Variante analog zu orangem 20ft-Container

Var1 ausgerichtet auf www.etoy.com
Var2 leicht verschoben

331119 4
22G1

etoy.CORPORATION

10.0
10.0

30.7
180.0
30.7

Cargo containers - the icon of global trade and logistics - travel the physical world in the same way data packages travel the internet.

M∞ SARCOPHAGUS in Black Rock Desert / Nevada
Burning Man Festival 2006

M∞ BRIDGE #0: SARCOPHAGUS displaying the digital remains of M∞ PILOT Keiser from Zug, / Switzerland.
Material: 20 foot cargo container outfitted with 17'000 LED pixels. People: etoy.VINCENT, etoy.MONOROM (etoy.CTO) and ISEA 2006 director Steve Dietz)

M∞ DISPLAY TECHNOLOGY

The immersive LED screen for the M∞ SARCOPHAGUS engineered by etoy is based on Troia, an enhanced version of the blinkenlights software originally written by Stephan Kambor and Stefan Schuermans. It displays digital movies, images, text and visual output from code in a space of 2 by 5 by 2 meters.

In order to individually address all 17'000 pixels in all three dimensions, the system uses a conversion scheme based on the logic of unfolding the cube into a two dimensional frame. Content on display is handled in terms of frames where every pixel is mapped to its corresponding hardware address. All communication goes through a Linux server that processes frame by frame. This distribution server receives a stream of frames from the Troia Pixel Mixer, then converts the stream and sends it to distribution modules, which in turn process the data further to the pixel modules (196 units of 50 cm by 50 cm large circuit boards each holding 64 SMD LEDS).

The distribution server is the central part that bridges software and hardware. The distribution modules and the pixel modules are hardware components that handle large amounts of data coming from the distribution server to directly operate the LEDs and to let them flash with the corresponding gray scale value (fast changing frequency of white light creates the illusion of 128 gray tones). The Troia Pixel Mixer provides its own protocol to interfere with play lists and content in realtime.

The technology behind the MISSION ETERNITY SARCOPHAGUS is the result of an intense cooperation with defekt! gmbh in Zurich and various High-Tech companies in Switzerland and Germany.
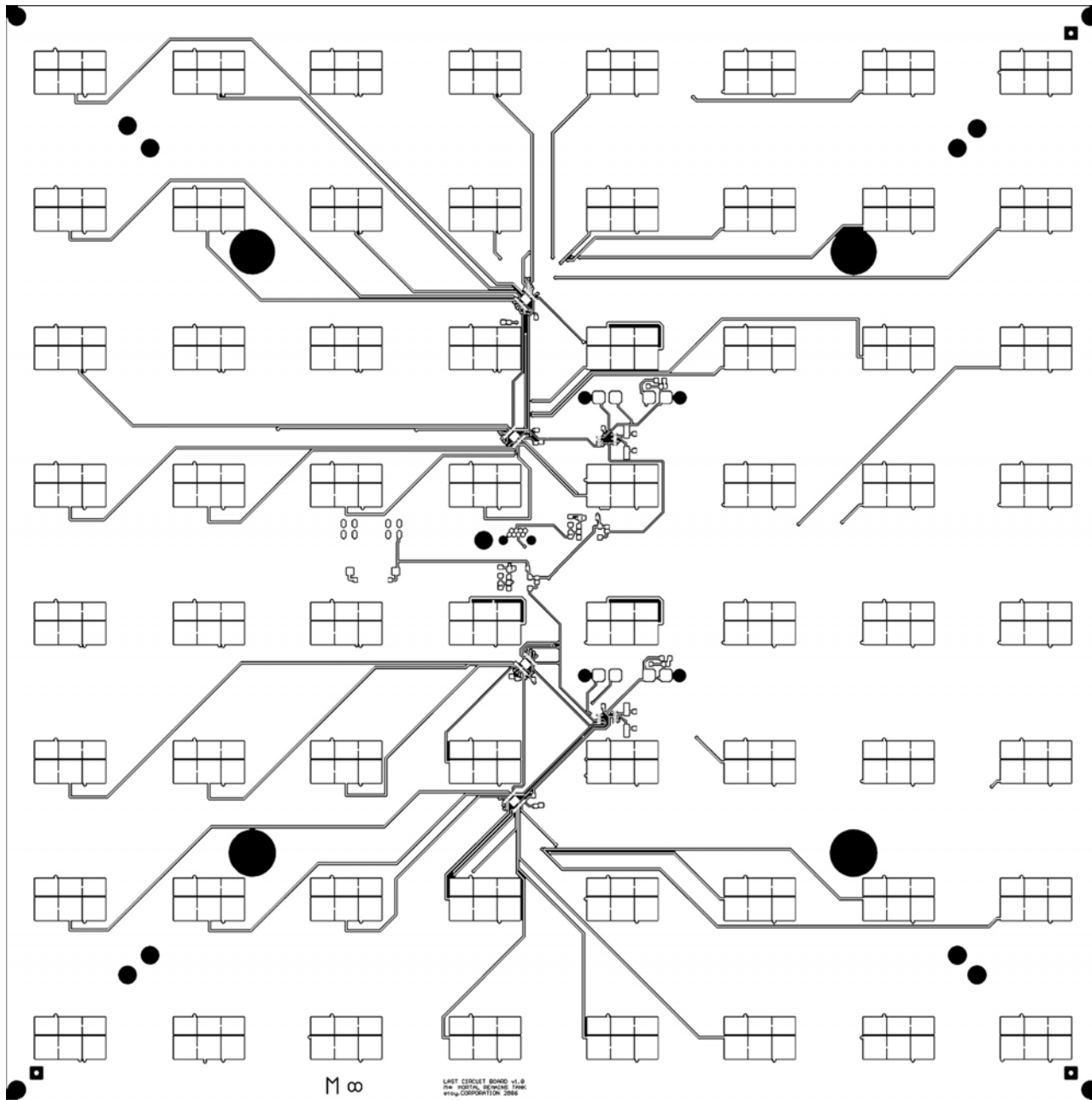
In collaboration with defekt! gmbh, etoy adapted the hardware design of the Troia pixel module and integrated all electronic components and 64 LEDs on one board (50 cm by 50 cm) to avoid individual harnessing of each pixel.

LAST CIRCUIT BOARD

The SARCOPHAGUS DISPLAY's basic hardware layer is the LAST CIRCUIT BOARD, a white, etoy engineered, square plate (50x 50cm) that holds 64 SMD LEDs (30 mA each) and two chips, the pixel modules.

The architecture provided by Troia/ Blinkenarea.org included hardware components addressing the LEDs and software that deals with formats, conversions and protocols. Both, the hard- and software architecture follows a modular approach in which all components are communicating via the TCP/IP protocol. The Code is available under the GNU Public License.

Troia has been created as a theater / architecture installation (http://www.blinkenarea.org/)

The LAST CIRCUIT BOARD displays the infosphere generated by people during their lifes and at the same time functions as the last resting place for the same users: once a PILOT dies his or her mortal remains connect to the hardware to close the circle.

By replacing a pixel for each PILOT who dies, the M∞ CONNECTOR is mounted directly on the LAST CIRCUIT BOARD and wired into the pixel system which then addresses the LED on with status information.

The LAST CIRCUIT BOARD translates the serial input from the distribution server and modules into pulse width modulation (PWM) that determines the gray scale value of each pixel.

M∞ GROUND CREW

etoy.AGENTS

etoy.ZAI (CEO / since 1994)
etoy.MONOROM (CTO / since 1998)
etoy.SILVAN (R & D SOFTWARE / since 2003)
etoy.VINCENT (CHEMISTRY & CODE / since 2003)
etoy.HAEFLIGER (INVESTOR RELATIONS / since 2003)
etoy.GRAMAZIO (PRESIDENT / since 1994)
etoy.KUBLI (LEGAL AFFIARS / since 1994)
etoy.BALMER (CFO / since 2006)
etoy.MIR (etoy.TANK-PLANT architect / since 1999)
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etoy.SCOTT-DE-MARTINVILLE (industrial design / since 2005)
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etoy.MARLAND (USA press speaker / since 2006)
etoy.MAX (press archive / since 2005)
etoy.TINU (SWISS handy man / since 2006)
etoy.MATHIS (grip / since 2003)
etoy.POL (etoy.POSTMASTER / since 2005)
etoy.ROCK (special effects & social engineering / since 2003)

LOCAL PARTNERS & PRODUCTION TEAM

Bruno Turnherr and Marcel Ackerknecht aka Styro 2000
defekt gmbh (M∞ DISPLAY ENGINEERING)
Stephan Kambor, Stefan Schürmans (Blinkenarea.org)
Viola Zimmermann (M∞ IDENTITY)
Brigitte Lampert (Graphic Design Supervision)
Andrea Reiter and Crew (Hugo Film / Documentary Team)
Everett Taasevigen (San Jose Photography)
Roger Handermann (Fashion & Uniform)
Platoon (Cultural Development / etoy.BERLIN-TANK)
Jim Mason (The Shipyard / Container and Energy Advise)
Burning Man Crew
Zack Coffin (SARCOPHAGUS welding)
Supertanker, Fischer Immobilien, Intercomestibles
Urs Zimmerli, Moritz Winiger, Dominique Batschelet
Wilfredo Sanchez, Vera & Nick Zai
Dock18 / Sofatrips (Social Engineering)
Aroma, Bernet Zingg Schreinerei
Patrick Huber (Kunstraum Walcheturm)
Claudia Güdel (Fashion & Uniform Support)
Patrick Bolle / Matthias Bach (Metallwerkstatt Dynamo)
Luft & Laune (Luftobjekte)

etoy.ADVISORS

Dr. Reinhold Grether (Science Advisor)
Joi Ito (Technology, Politics & Financial Advisor)
Ruedi Zai (Architecture Advisor)
Dr. Simon Grand (Philosophy & Metaphysical Issues)

INSPIRATION

R. Buckminster Fuller (engineer, architect, artist, teacher, designer, sailer, realist and idealist. The prototype of an etoy.AGENT - ahead of his time)

Coco Loretan / AXA / etoy.AGENT08 (pioneer & friend)

Dr. Reinhold Grether (human search engine)

Dr. Timothy Leary (visionary mind, F.O.A.F.)

etoy.SPONSORS

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Kanton und Stadt Zurich (Switzerland)
Swiss Life (etoy.TANK-PLANT ZURICH)
MIGROS Kulturprozent (Science & Future)
LISTA Corporation (making etoy.WORKSPACE work)
3D AG (etoy.HOLOGRAM / high security certification)
Röhm Schweiz (Plexiglas)
Canon (Switzerland)
TEC-IT (BARCODES)
Chris Hardt GMBH & Airflow (CNC, Print)
Eunet, Netzwirt / Reto Gassmann, Majimoto.net (ISP)
Bitflux (CMS)
La Corbière Village Nomade (GENERAL MEETING 2006)
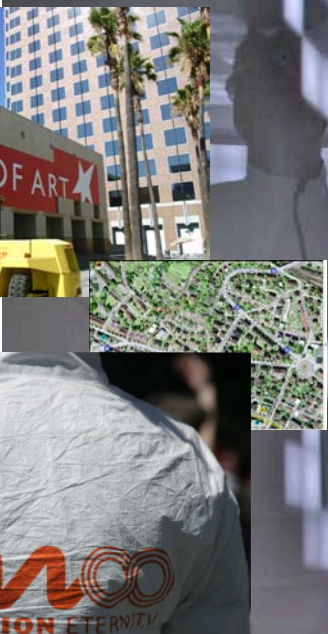
MISSION ETERNITY is a project launched by etoy.CORPORATION
more information and bookings: www.etoy.com/contact