

AGNOSIS

The Lost Memories

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“The city does not consist of this, but of relationships between the measurements of its space and the events of its past. As this wave from memories flows in, the city soaks it up like a sponge and expands. A description of Zaira as it is today should contain all Zaira's past. The city, however, does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows, the banisters of the steps, the antennae of the lightning rods, the poles of the Bags, every segment marked in turn with scratches, indentations, scrolls.”

Italo Calvino “Invisible Cities”

There is a collective agreement, among sentient beings, on the idea that gnosis, otherwise referred to as knowledge, is the root from which reality arises and is experienced. In this thread of thought, we accept the perception of reality as a rendered multi-layered superimposition of information over the emptiness of being. Although a big part of the information acquired through experience is kept for

later retrieval as memories, a fair amount of it is discarded and lost; rendering absent.

There are two main reasons for the failure of memory: *transience* or the deterioration of memory over time and *absentmindedness* which refers to the non-capturing of memories due to the lack of attention. The later one is also adopted by Daniel Schacter, former chair of Harvard University's Psychology Department and a leading memory researcher, in his book *The Seven Sins of Memory: How the Mind Forgets and Remembers*, he introduces *absentmindedness* as the second of his proposed list of memory-sins. He describes this phenomena as a problem happening in the point where attention and the memory interface meet; if encoding attention was not sufficiently paid to an event, the information involved in the experience would be impossible to retrieve later; and as consequence we loose data.

In the same way our memories build up our present existence; shapes, textures, colors, odors, sounds, etc., a great deal of information never gets rendered as reality, as if it never existed. Agnosis: *The Lost Memories*, proposes a system which enhances the human perception-apparatus and proposes alternatives to deal with existential phenomena such as *absentmindedness*. This project is an inquiry on how technology can mediate and enhance human memory by

expanding the possibilities of interaction, experiencing and sharing of this, while tracing parallel lines between memory, attention and perception with the construction of reality.

The System:

The work appropriates the 3 main steps involved in human memory (Encoding → Storage → Retrieval) and traces parallels between the biological human process and the technological devices and algorithms used for capturing, storing and recalling data.

The system is comprised of a portable and wireless electroencephalogram (EEG) with small camera and microphone, together (as a single wearable object) these can measure the levels of attention of the wearer in any given time. If the attention of the user drops, the device immediately records the moment (lost memory) in the form of an image and audio clip, which are then sent, in real-time, to a server that algorithmically processes them. The result is an immersive 3D procedural environment built from these memories; a virtual space where the wearer and any other individual can experience and share the lost memories in more abstract and spacial ways. The more the artist uses the wearable device the more lost memories are captured from his daily life and presented in the virtual space.

GENERAL LOGIC

the following diagram presents the general logic of the system, many technical details are ignored

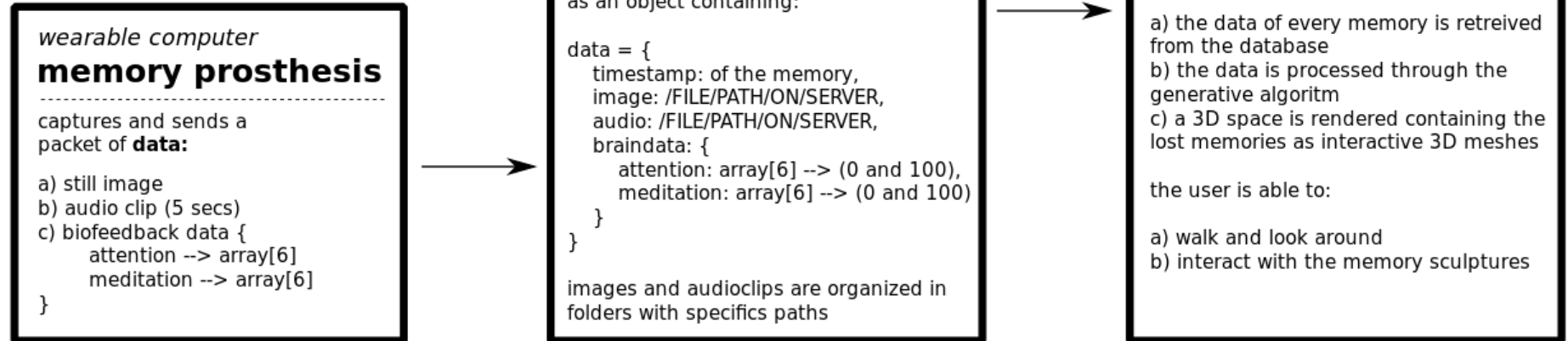


Figure 1. The logic of the system..

The installation:

The installation of Agnosis in a gallery space is comprised of 3 parts: the wearable object, the main immersive 3D virtual space and a series of prints Please see Figure 6.

A) The Virtual World is an empty skybox (3D virtual space with sky and ocean) in which memories are rendered as abstract objects floating in oblivion. This space can then be accessed via a web browser, users can walk and wonder in this space, interact with the lost memories which, in a cluster, make a total new abstract reality.

The created 3D virtual space resembles, in a sense, the city of Zaira, which Marco Polo describes to Kublai Khan in Calvino's book "Invisible Cities"; a cityscape containing all memories of the past, where buildings and roads grow and expand with each memory. Each memory in Agnosis' virtual space is generated by an algorithm which uses the brain data captured during the attention drop of the wearer to create its abstract form and size, the captured image which becomes the color data and texture for the 3D object, and the audio clip which is kept intact and positioned inside the digital memory object. Anyone

can then wonder and discover this abstract objects while listening to the real audio captured which corresponds to a particular memory. This part of the installation is presented as a projection through which expectators can immerse themselves in the lost memories and experience them from a first person point of view. Please refer to *figure 2* for a screenshot of the virtual space and the following link for a video sample:

<https://vimeo.com/162176380>

Password: thelostmemories



Figure2. Screen-shot of the realtime virtual world with one lost memory

B) *The prints* are a series of still images generated by the system itself. This still images can be regarded as mixed-reality media. They are an automatic composition created by the computer at the moment when a lost memory is captured from the artist's life. This image renders the newly created digital 3D sculpture from the

memory and overlays it over the original photo of the space where the memory itself was captured; please refer to Figures 3, 4, 5 for a samples of these prints.

C) *The Wearable Piece* is also a crucial part of the installation. This object, which

is the one the artist used every day for a long period of time and which also was responsible of capturing the lost memories, is displayed in the exhibition space as part of the narrative; almost as a sculpture itself. Please refer to Figure 4 for a complete layout of all the parts of the installation.



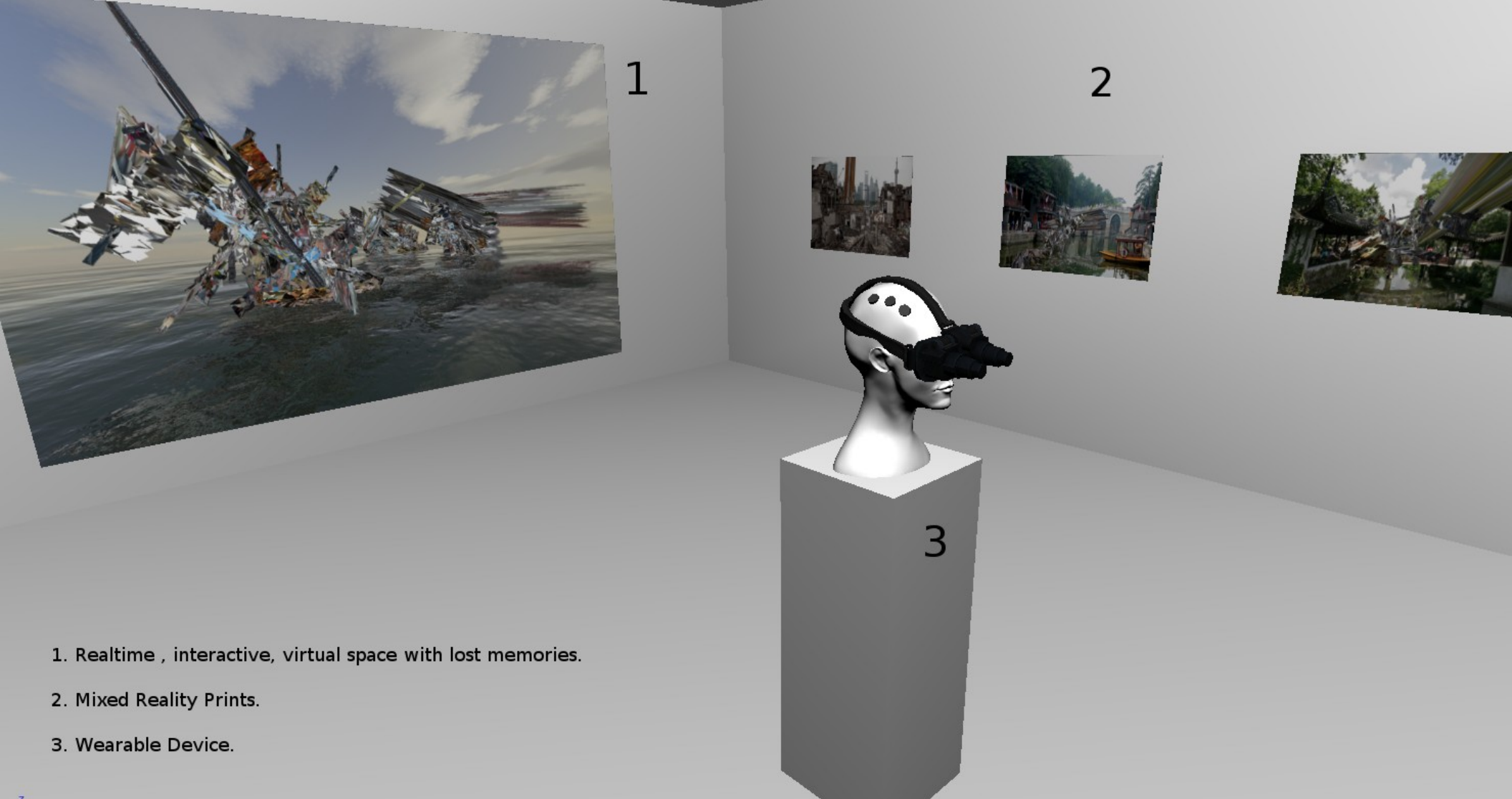
Figure 3. Print sample of the mixed-reality lost memory.



Figure 4. Print sample of the mixed-reality lost memory.



Figure 5. Print sample of the mixed-reality lost memory.



1. Realtime , interactive, virtual space with lost memories.
2. Mixed Reality Prints.
3. Wearable Device.

Figure 6. Installation with its parts..