

The Bridge Project

Elif Ayiter
Sabanci University
Istanbul, Turkey

Abstract

The aim of this project is to visually demonstrate a personal understanding of the evolution of the computer generated "image work" [Mat77], by means of a free associative process that utilises the search and query mechanisms of the internet. What has been attempted is the creation of a structure that displays this process by showing the data gathered in detail as well as in its entirety: Zooming in and out of objects and by means of virtual navigation, following free associations that can be evoked through online thesauruses, internet search engines and the ensuing surf mechanisms utilising the act of image creation, very much like collage/assemblage. Thus, seeking chance encounters and found objects, the author does turn not to second hand shops, bookstores and discarded magazines and catalogs, but to the internet.

Keywords:

free association, thesaurus, zooming, entirety/detail, gestalt, organic, evolving, architecture, topkapi palace, rhizomatic growth, infinite, time travel, non-linear, the image work, search engines, internet surf, data visualisation, 3D navigation, 2D navigation, charts.

1. Objectives

The aim of this project is to visually demonstrate a personal understanding of the evolution of the computer generated "image work" [Mat77], by means of a free associative process that utilises the search and query mechanisms of the internet. What has been attempted is the creation of a structure that displays this process by showing the data gathered in detail as well as in its entirety: Zooming in and out of objects and by means of virtual navigation, following free associations that can be evoked through online thesauruses, internet search engines and the ensuing surf mechanisms utilising the act of image creation, very much like collage/assemblage. Thus, seeking chance encounters and found objects, the author does turn not to second hand shops, bookstores and discarded magazines and catalogs, but to the internet. The process is inverted to that of collage in that it is the associations themselves that reveal the found object and not the object that reveals the associations [Sei61].

1.1 Zooming

The overriding interest is to find out what a structure composed of these interrelated ideas and images will look like, whether it will convey the overall content and aim of the project when looked at from a distance, and the specifics when looked at in proximity. There is a differentiation between data visualisation that carries as its primary goal the quick and accurate location of a specific

data and the visualisation of trends and correlations within an overall structure without the user getting lost [Che04] and the artists aims: Here the aim is that the viewer gets lost, wanders from association to association, spends time, zoom in and out and view entire chains of associations as well as read the details.



Figure 01: Screenshot, Bridge project

Zooming has, of course, been used long before, in film. What makes zooming interesting now, is that here we hand over the magnifying glass to the user as a tool of interactivity. As we zoom into and out of virtual spaces we encounter new levels of detail as well as view entire structures. Thus the artist is faced with the challenge that distance and proximity work equally well on one plane of perception, not just in certain instances, as would be the

case in film, but consistently, almost simultaneously. One of the tasks that the author has set herself here, is to investigate means and methods of making this duality of detail/entirety work.

1.2 The fourth dimension

The timelessness involved in the process itself in the computer environment is an object of continual fascination: Additions can be made to work at any time or the original work be modified into new generations/mutations. Thus working with a computer has an element of infinity, if not time travel, embedded in it. This open endedness is known in the online art/design communities on the internet as "tweaking". The young digital artists that hang out in online communities will often write comments about their own creative processes:

"+ekud vs ^alphakx

this is a cool piece that i have completely forgotten about for months. i opened it today, and was like 'fuck, thats good, why don't I tweak this?'

fixing that now.

j+b" [dev06]

Users of image processing software will be very familiar with the unlimited undo's and redo's of the history palette and that enable the artist to traverse backwards and forwards in time, the ability to save many many generations of the same work on the way, with absolutely no need of destroying the original. This project does not wish to demonstrate this endlessly regenerative nature of the computer generated image work itself. However, in itself it demonstrates this process of constant regeneration: The 3D charts that can be viewed on the website of the project [Ayi06], show the status of the environment on January 25th and February 28th of 2006. Not only have things been added to the environment but building blocks have changed and shifted. If such a 3D chart were to be made on a monthly basis it would show how much the work changes as it progresses. On the other hand, previous versions of the work have been saved diligently, and thus the artist is at liberty to go back and "tweak" any one of them as the start of a totally new project or a different version of the existent one.

2. Methodology:

2.1 Content

Writing one keyword, into the online thesaurus kicked off the project. The word "bridge" was chosen primarily because the artist uses a bridge daily to connect between work and home and thus a bridge is something that already has a lot of connections and personal associations connected to it. Also this particular word was used because the artist sensed it had the ability to generate multiple associations from the start, which it did indeed fulfill, immediately enabling the choosing of multiple paths that could be pursued. The synonyms generated for the word "bridge" were written into either search engines or the

thesaurus was used in the generation of further associations that generated links. These links were followed not only to obtain definitions, visual representations but also as a means for generating further associations that in their turn generated even further links and associations. These associations were frequently tossed back into the online thesaurus: The online thesaurus works in a character associative mode and thus some very strange associations were tossed back at the artist: Typing the word "dragonfly" led to "tragic flaw", or while searching for the definition of the word "Mesa" it emerged that Mesa is an acronym for "Methyl Salicylate", which is derived from the birch tree, the latin of which turned out to be "Betula Lenta". Betula Lenta, typed into the thesaurus, led via a character association to "Beulah Land", which in turn led to "over the rainbow", which led to "Judy Garland", who as one of the texts in a website dedicated to her had indeed had a "tragic flaw", which led full circle to a point that had been arrived at pursuing a completely different chain of associations that had started out with moon > earth > magna mater > cybele > dragonfly > tragic flaw. Choices were made only based upon the material that was encountered during this search, although unexpected combinations were used in preference to the more mundane associations. As an example, a google search for "modus operandi" led to a website that also had links relating to moon phases which was immediately put to good use.

One could of course, have determined upon a completely random kickoff point by using a text generator software and this may still be undertaken in the future. In this incarnation of the project the internet was not used as a kickoff point for the search but the kickoff point was determined upon by the artist herself - in a physical environment, while I was on the Bosphorus bridge herself, returning home after a long day at work. The artist did, of course, realize that the word "bridge" would give me multiple associations and that is why it was chosen. Whether a word provided by a text generator will provide the same possibilities remains to be seen in further incarnations of this project. But once the chain of associations were underway it was found out that progress from one word to the other was astoundingly rapid: "Bridge" led to bone via "bridge of nose", which was an association that would probably have been made quite easily. However that "bone" would lead to "process", which in turn would lead to "modus operandi" was entirely unexpected and it was those moments that made the search a fascinating exercise.

As far as the word search was concerned no associations were made outside of the internet. However, personal associations were made when it came to images and the artist did not hesitate to use these. Thus, a deliberate choice to go to the webmuseum to find an image that would represent "father" or a decision to look for Rembrandt's "Anatomy Lesson" as the image for "Anatomy" did occur. But these cases are isolated and the bulk of the images used here are images encountered by an image search. Conversely, some word associations also came from links that the images were harvested from: "Planet halflife", which led to "computer games" was found while searching for images associated with "black mesa".

2.2 The Design Process

Starting out, the artist did not know what the visual manifestation of the project would actually be. The initial assumption was that all found visual material would be collated in a hyperlinked 2D format. However, unlike most html pages, which are predominantly linked text, the targeted output was to be images associatively placed in proximity to other images. The artist also wanted the chain of associations to remain visible and accessible in their entirety at all times.

2.2.1 Space

Given that any 2D space allows only the usage of the x and y axes, no matter how sophisticated in its hyperlinkage, and as such was insufficient to display the material, especially in its entirety, the artist turned to navigable 3D environments. The initial decision was to build a maze, one very much like a physical, architectural space. Although the maze was exciting to walk through as well as pretty to look at, and was thus a rewarding experience for the user, in terms of the project's specifications the artist was no better off than in 2D: There were still only the 2 axes, x and y in html, and x and z in the maze.

Since every 3D object has at least 6 sides the artist could generate 6 associations out of each block and still be able to place most of them side by side. This could only be done by utilising the x, y and z axes equally and this led to the design of a structure, built of rectangular prisms, that stretches itself into all directions, built in VRML.

There was a trade off in this: By relinquishing the architectural structure; complete with floor, walls and sky, the artist also relinquished the ease in navigation and user friendliness that this provided. Due to its associative content, the environment started growing organically which made the creation of a cohesive whole far more challenging than a preplanned structure would have. All attempts to bring method to madness were relinquished and instead the artist decided to go with the flow, following free association not only in content but also structure and design.

2.2.2 Interactivity/Navigation

Currently the environment can be walked through by using the interface of the VRML viewer, using either the mouse or the keyboard arrows. Alternatively there are animated viewpoints that can be accessed in linear sequence. Both these methods are insufficient in achieving non-linear navigation, which is integral to this project and hyperlinks that join the blocks will be undertaken in future incarnations.

2.2.3 Gestalt

All images used come from the internet. Except in a few cases, the images were used as found, merely adding a

typographic layer containing definitions. Thus, the images cover a wide range of styles and techniques, from digital wallpapers to archival photographs and from charts to scientific illustrations.

Creating a Gestalt that would be unified as a whole, despite the discrepancy of its parts, compounded by the organic architecture, formed a major challenge [Smi03]. The artist

tried to solve this problem by embedding this material into replications of a single shape that then formed a geometric pattern. Also further elements that would enable a Gestalt, specifically colour and type were brought into play.

Shapes. The building block is a simple 3/4 aspect ratio horizontal rectangular prism. The representative image is mapped, front and back, on to each block. Rectangular prisms can be stacked thus enabling the associations to be placed in an efficient manner.



Figure 06: The basic building block, a rectangular prism

Color. Outside of the images themselves, the colour scheme is neutral: The rectangular prisms are a flat %80 transparent white and the background a white to black gradient.

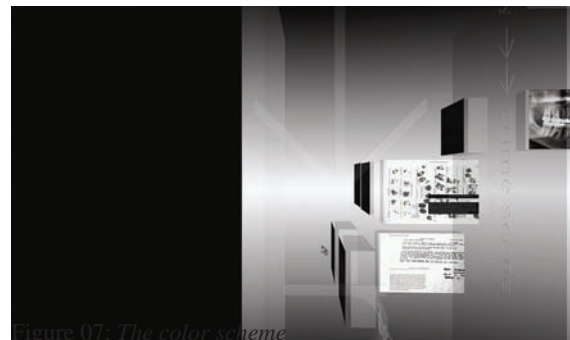


Figure 07: The color scheme

Typography. Since legibility was a major consideration in a 3 dimensional environment the typeface used is a sans serif typeface (DIN), which is known for its high degree of legibility: The text would need to be read in a 3D environment and would certainly undergo perspective distortions.



Figure 08: *Typography and 3D*

Type was also used as a navigational aid, setting up directional axes of type between nodes that were interrelated but could not be stacked. These axes are not always fully legible, since depending upon one's location they may be partially or even wholly concealed by other

objects or be under unfavourable lighting conditions. They have however been tested them on numerous users and it was found out that they do eventually manifest themselves and prove to be a valid aid.

3. Future Work

Hardware restrictions aside, the artist does not envision a particular time when this project will be completed or indeed that she should be the only one working on it. As long as the interest in it holds up it can be endlessly

References:

- [Ayi06] Ayiter, E. <http://www.citrinitas.com/papers/bridgeproject-site/index.html> Retrieved on: 12/02/2006
- [Che04] Chen, C. *Information Visualisation, Beyond the Horizon* (2nd Edition). Springer Verlag. London. 2004. P: 22
- [dev06] <http://www.deviantart.com/deviation/3416915/> Retrieved on 12/02/2006.
- [Mat77] Matthews, J. H. "The Imagery of Surrealism". Contributors: Syracuse University Press. Syracuse, NY. 1977. P: 4
- [Sei61] Seitz, W. C. "The Art of Assemblage". Museum of Modern Art. New York. 1961. P. 5
- [Smi03] Smith, P. F. "The Dynamics of Delight: Architecture and Aesthetics". Routledge. New York. 2003. P: 5, 167
- [SL07] "Second Life" <http://secondlife.com/> Retrieved on: 18/07/2007

tweaked - by her or by others. It can keep on stretching itself into its three axes and new chains of associations can be generated from the existent ones. Only a few of the associative paths have been followed and the artist has walked down very few of the multiple branches

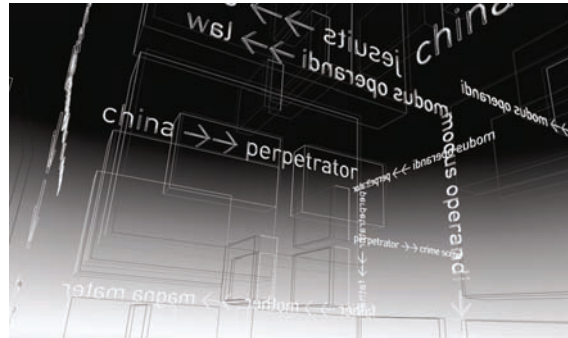


Figure 09: *Type for navigation*

that opened up to her. Many more are left open ended to be gone back to at later dates, not just by her but maybe by other users as well. So while modules to this version of the project will be added a future plan is to open up the project to a pool of contributors in Second Life [SL07]. In this new, meatverse generation the artist will also be working on new versions of the environment that will investigate hyperlinks, layering of modules within modules, using transparency and enriched zooming capability and also modules that contain motion graphics/video or embedded interactivity.