

GINGA
GLOBAL INFORMATION NETWORK
AS GENOMORPHIC ARCHITECTURE

<http://www.plannet-arch.com/ginga.htm>

W-180

"This book is a dream
of other books."
"Un fantastique de biblio-thèque"
by Michel Foucault

SYSTEM

Concept

Spatial representation of information is proposed in the "GINGA" project, Global Information Network as Genomorphic Architecture, where metamorphic relationships in cyberspace are manifest in the form of an "Information-Scape". GINGA is an interactive 3D browsing system based on a huge collection of digital information. Web resources are reconfigured with cyberspatial codes into GINGA and appears as any of the following 9 main Worlds ; Nebula, Ring, Network, Forest, Strata, Text, Image, Polyphony, and Cemetery. Users can explore these Worlds with avatars (incarnations) which are personalized and controlled by users' preferences. Users are expected to take full advantage of their "multiple other selves" for profound investigation and/or extensive research. It is also possible to exchange information with the avatars of other users and even invite them into your personal archives. GINGA has no static form, it can exist anywhere extended selves communicate.

Single User Model

Your computer will need viewing software to access the GINGA system and research its vast information-scape. Individual interface consists of three major functions; an editor, avatars and your personal archives. As you enter your research subjects into the editor's dialogue box, a number of avatars will simultaneously begin to investigate the Worlds of GINGA. Your editor will classify the results, and save what you need to your personal archives.

You will need Cosmo Player 2.0 to view the VRMLs, and Shockwave & Flash Player to view the 2D animations. Pages are made at 1024x768 screen resolution.



Single User Model

Multi User Model

The GINGA library is an electronic field where you can access to an officially published data as well as individually published information. Users can open their personal archives of "meta-data" to other users as an extension of GINGA. Your avatar may carry your personal information and a list of your personal archives and "exload" these to the avatars of other users. The functional boundary of GINGA can be extended as the cooperation of users increases.



Multi User Model

How to use

Basic Information

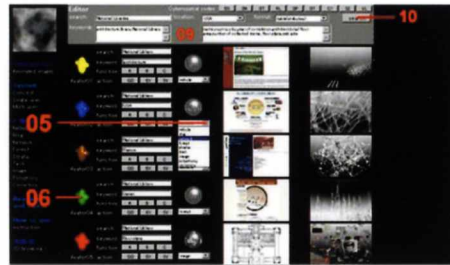
You will need *Cosmo Player* to view the VRMLs, and *Shockwave & Flash Player* to view the 2D animations.

Pages are made at 1024×768 screen resolution.

It is best viewed with Netscape Navigator/Communicator 4.0 or higher.

Operating GINGA

- 01 Click on "GINGA" at menu bar to get into 3D cruising in the GINGA Worlds.
- 02 Start with an auto-cruise in the Nebula World.
- 03 You may also choose a manual-cruise by clicking on the "manual" button.
- 04 To change your avatar or World, or to start a new search, click on the "editor" button.
- 05 At the editor interface, you can change each avatar's World by selecting from the pull-down menu.
- 06 By selecting on a specific avatar icon , you can view its VRML World on a larger screen.



- 07 From this screen, you can choose either auto or manual-cruise. If you cannot start auto-cruise (it may be too heavy), restart your internet browser or try manual-cruise.
- 08 When you find floating avatars or info-boxes (samples of information) in the World, click on them to get some information.
- 09 To start a new search mission on the editor interface, type in the search dialogue boxes and choose locations and a format of results from the pull-down menu.
- 10 Push "search" to start. (currently GINGA search engine has not been uilt)
- 11 To view a classified result of the search for the "National Libraries", click on "result".
- 12 To go back to the editor interface to start another search, click on setting".



9 WORLDS

GINGA is a huge collection of digital information.

Although it has no definite size or form, GINGA is transformed into visible “Worlds” according to each World's system of classification and representation of data. In addition, customized configuration of each avatar can affect the representation of the World. The

01 Nebula

Information is distributed in the Nebula according to its data identifier such as its URL or IP address. Spreading over the entire World, smaller Nebulae are formed among those who have common URLs. These formations do not reflect geographical locations in the real world, but correspond to topological relationships in cyberspace. This is a direct representation of the World Wide Web into an information-scape and is the default condition of GINGA.

02 Ring

Information is assembled on the rotating Rings. The Rings are grouped according to type of information and update cycle. The diameter of each Ring is determined by that information's frequency of update, and its width by the volume of the same information. News, sports, weather, hit-charts, business and finance can be most conveniently found here.

03 Network

Linkage of information is emphasized in the Network. Network nodes serve as sites of intersection for multiple subjects. The size of the connecting paths reflect the amount of transmitted bits or bandwidth between nodes. You can trace the network from node to node for further investigation.

04 Forest

Groups of a tree directory systems are represented in the Forest. Sharp pointed trees contain nested pyramids of directories. The height of each tree corresponds to the number of levels of hierarchy from the subject to the broadest category. For example, in the Yahoo! search engine, “Louis Kahn” (<Masters<Architect<Architecture<Design Arts<Arts) exists at the 6th level.

05 Strata

Information accumulates in chronological order in the Strata. Each fibrous segment within a Strata contains Strata of the next smaller period of time. As you click on a Strata of “2001”, another Strata of “January” or “20th” comes up.

06 Text

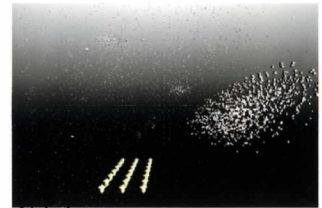
The Text is an exclusive archive for text information. As Jorge Luis Borges noted in “The Library of Babel”, it contains an infinite number of infinitely thin leaves of text. In this World, the specific arrangement of leaves can be adjusted according to the needs of the user. As your avatar dives into planes of Platonic text, the essentials of Western philosophy are assembled by your editor.

07 Image

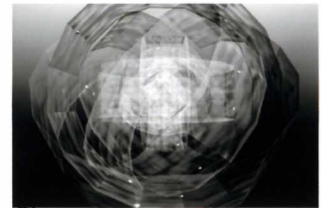
The Image is a World of pictures, maps, photos, movies and other visual information. Images float randomly making a phantasmagoric “final theater” or “labyrinth of memory”. The floating image is the first of related images which can be accessed as you enter image.

08 Polyphony

World wide sound information is represented in the Polyphony. Digital sound data is transformed into notes of visible bits. These bits spiral around a vast number of light columns which correspond to a type of music, musician or musical instrument. Moving through this World, avatars pass by audible columns of sound.



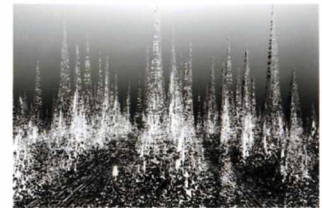
Nebula



Ring



Ring



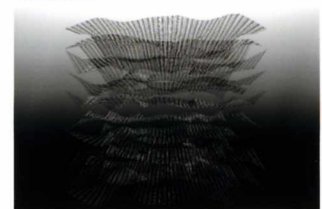
Forest



Network



Network



Strata



Strata

09 Cemetery

The Cemetery is a cyber-necropolis for unused or dead avatars. When a user dies, his/her avatars are usually buried here (with or without the memory of its life.) If past information becomes necessary for some reason, the memories of dead avatars can be communicated with. It is also possible to transfer your avatars or their memories to your children or friends. Dead avatars are translucent.

Cyberspatial Codes

The information-scape of each GINGA World can be configured by the following cyberspatial codes. The value of cyberspatial codes can affect both the characteristics of your avatars and the architecture of each World.

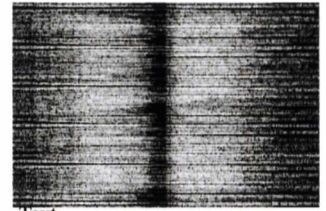
distribution	overall distribution of information in a World determined by that information's data identifier (URLs or IP addresses)
density	density of information within similar subjects or common URLs (number, class, inheritance)
detail	detail of information represented in a World (title, summary, entire text)
depth	depth of categorical specificity (Louis Kahn<architect<architecture<Art)
relation	relationships between information (subjects, keywords, server location, languages)
date	uploaded or last modified date of information (hour, day, month, year)
cycle	update cycle of information (every hour, everyday, every month, every year)
size	size of information (byte, KB, MB, GB)
velocity	accessibility and speed of connectivity of information determined by bandwidth (bps, kbps, Mbps)

Avatar

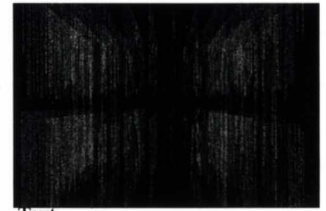
Avatar originally means the incarnation of God in Hinduism. Now, it is understood as an extended human body in cyberspace. Under the control of users, avatars browse, search, read, listen and communicate with other avatars. You can keep many avatars for your research assistants and set up their characteristics individually using cyberspatial codes. By customizing, you can set speed, depth of research, hearing, sight, communication level as you like. By utilizing many avatars at the same time, you can get synthesized information through them. You can become either a virtual-genius or a virtual-schizophrenic. Avatars might finally affect the human system of recognition and comprehension.

Editor

The editor is an intelligent cyber-librarian in your computer system. Your editor can be customized to organize the collected information in a specific way, summarizing particular attributes in a classified table. The information you would like to research can be typed in the search dialogue boxes. Then the editor interprets your request and distributes research missions to avatars. Avatars will be sent on missions after you confirm or customize their configurations. The editor will display the on-going search process in your window. As each avatar completes its search, the editor will provide the final table of information. The editor is good both as an intensive and extensive research organizer.



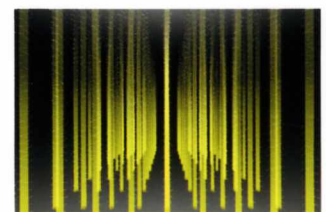
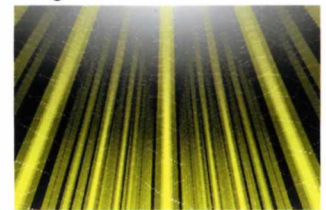
Text



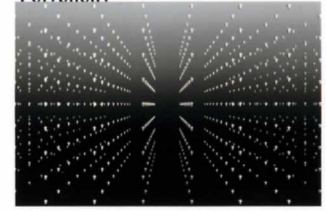
Text



Image



Polyphony



Cemetery



Cemetery