

# The Web as Generative Art

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*"The body as an organisation is obsolete. The artist's role becomes one of an evolutionary guide, a genetic sculptor, an architect of internal body spaces."* Stelarc, 1984.

## <Abstract>

With the Internet fast becoming ubiquitous in the developed world artists are finding new ways to not only express themselves, but to communicate with each other across geographically remote, and often politically volatile regions of the World to collaborate with like-minds. "OMA - Ausländer und Staatenlose - a W3 Opera"<sup>1</sup> is an overview of creative processes evolving through computer networks, the interactions and simulated communities that spawn from them and more significantly, the art that is the process of remote interaction itself. More specifically, OMA is about generative art, whereby computers, within a networked environment such as the World Wide Web, are used as enhancer, as generator of new media content in concert with communities of collaborating artists.

## </Abstract>

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## <The Web as Generative Art>

The Web, and the Internet for that matter, are unlike any media we have ever known. Regardless of the hype, the Net is not a database, an encyclopaedia, a magazine, the denizen of perverts and pedeophiles, nor is it like a magazine, it doesn't even come close to competing with television. It is ephemeral, ever-changing, growing more like life itself than any media we may try to identify it with.

The Web is exciting. Computer networks are exciting. They are liberating media enabling anyone with access to the technology to share something of themselves, to discover new lands of thought, of expression. This *is* a revolution. We're charging head first, all senses on deck, towards a transformation in the way we communicate, create and express ourselves. Despite what you may think now, given the outrageous growth of Internet activity, its still the most significant development in communication since wireless radio. It is akin to that of the printing press when exclusivity of the written word was smashed, when language was freed and people communicated to each other via the written word. The downside was the gradual loss of oral traditions within many of our societies. Story-telling was largely replaced by story writing and reading.

Today, these traditions are being rekindled, and largely via the Net. Laurie Anderson remarks, "Technology today is the campfire around which we tell our stories. There's this attraction to light and to this kind of power, which is both warm and destructive"<sup>2</sup>.

The written word, it has been suggested, makes permanent what in oral language was permeable and ephemeral<sup>3</sup>. Writer, Jacques Leslie, suggests that, "... in email, we've devised a written medium that partly undermines the assumptions of writing, that evokes the uncertainties of oral culture. Getting used to email [and the Web] ... may mean accepting its vast capacity to sow ambiguity"<sup>4</sup>.

People are telling each other stories everyday via email, via IRC (Internet Relay Chat), within simulated environments such as MUDS<sup>5</sup> and the popular Warner Bros. net interactive, The Palace<sup>6</sup>. They're forming new types of communities, warped and indulgent tribes, friendly, strange and sometimes decadent virtual villages unlike any we have ever known. The net is more like a mall than a super-highway. You can stop and talk to some one without fear of being run over.

We've come a long way since the days of stone and wood.

How does the Web figure in all this? The Web, interactive Internet communities and games like MUDS, are generative media, platforms for art, for expression that evolve, change and never look and sound the same twice. The most engaging of sites are those that change as frequently as the shelves in supermarkets. Some, as wine, mature slowly, growing in complexity and depth creating pathways and journeys perhaps new traditions and folk-cultures.

Designing and programming a site to change as frequently as, say, a screensaver, takes some doing. But it is possible to build layers of generative processes. For instance, embedded within the OMA Web site is a soundscape which, with the appropriate plugin<sup>7</sup>, will play automatically when the page is loaded to screen. It will play for approximately 5 minutes. Whenever you return to the site the piece will replay but differently each time. Although its basic structures were composed it is, for all intensive purposes, re-composing itself.

The composition is derived from a system based on the anagrammatic relocation of five notes comprised of atonal or compound chromatic clusters/chords. These are dispersed over nine bars which are in turn cycled over 81 bars. The entire piece is then looped generating fresh variations of its humble 45 note, 9 chord, 81 bar seedling.

It was composed with a remarkable piece of software called, Koan™. All pieces created with Koan are “interpreted and composed in real time”, generating different versions of your piece every time it is played so that it is never heard the same twice.

Brian Eno has enthusiastically adopted Koan, creating a Generative Music installation at the 11th annual Music Festival of “Urban Aboriginals”<sup>8</sup> in Berlin, and an album on diskette called, Generative Music 1. Eno suggests that kids in the future will wonder why we ever used to listen to the same piece of music over and over again.

Generative music not only challenges the way we listen to music, it leads us to re-think our notions of interactive-multimedia, our notions of a digital aesthetic. The digital realms offer us the opportunity to not set our ideas in stone, but to allow them to grow and manifest new forms. We’re seeing the demand for this already in the simulated worlds such as LamdaMOO and the YORB<sup>9</sup>, spaces that are evolving even as we speak. Brian Eno says of computers, “I think the best thing about computers is that they can grow things from seed...”.<sup>10</sup>

Computers need not only be used as a means for storing and replicating information, they can be used as creator, as generator of new media content. Stephen Holtzman, author of the thoroughly engaging Digital Mantras - The Language of Abstract and Virtual Worlds, suggests that computers are “...the ultimate manipulators of abstract structures”. And we, the great abstractionists, need only fuel them to maintain our exploratory quests, wherever they may lead us...

## **</The Web as Generative Art>**

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- <sup>2</sup> Multi-mediatrix, Pamela McCorduk, Wired 2.03, PG 81
- <sup>3</sup> Brenda Denat, The Hebrew University of Jerusalem - unpublished essay on computers impact on text
- <sup>4</sup> Mail Bonding - Email is creating a new oral culture - Jacques Leslie (Wired 2.03 PG 42)
- <sup>5</sup> Multi-User Dungeons
- <sup>6</sup> The Palace Client Software - <http://www.thepalace.com>
- <sup>7</sup> A piece of software that is activated within a Web browser (such as Netscape)
- <sup>8</sup> Urban Aboriginals - <http://www.icf.de/urban>
- <sup>9</sup> New York based public access computer bulletin board and television community
- <sup>10</sup> Before and After Science, an interview with Brian Eno, PC Format, March 1996, Issue 54, PG 32