photo-images buzzing on the wires

There is plenty yet to be done in the new areas of digital art distribution, primarily with CD-ROM and the World Wide Web. **MIKE LEGGETT** outlines these two spaces and looks at the work of David Blair, an artist who combines both. In using the printed format to discuss a computer format some background description is supplied.

hen exhibiting photographs the context for presentation is often out of the hands of the photographer. At worst, they are slung around the walls of a room by a gallery manager; or scattered across some pages by a picture editor; zoomed and panned by a caption camera; or emblazoned from the screen or hoarding. Even when Chris Marker frames and edits *La Jetée*¹, the feature-length film composed entirely of still black and white photographs, what are the conditions for projection?

The computer screen is a space that is developing as a viable option for the exhibition of the photographic image, particularly as part of the current development of the multimedia computer. This offers the option of interaction with images and the integration of typography, graphics, smallscreen movies, sound, text and 'other means of reproduction yet to be invented'. The circus that is multimedia is currently suffering its baby blues. The hype has grounded. The production techniques and budgets necessary are too close to a small feature film. However, there is plenty yet to be done in these new areas of art-making and distribution, primarily with CD-ROM and the World Wide Web. Initially, assuming the space in which the screen is sited is neutral, what are the variables which will affect reading the picture on a computer screen? Picture fidelity is affected by two factors: the 'fixed' resolution of the standard monitor — 72 pixels/dots per inch/25mm; the number of colours available for 'mixing' — from 4 to millions depending on the setting selected on the computer. This is a factor affected by the processing and memory resources of the computer but broadly speaking, the more colours, the slower is the picture drawn. Most domestic computers work well at 256 colours and the industrial type at thousands or millions of colours. S NO

beet

Image storage is the other main variable. Even with an image which is full-screen, (640 dots/pixels by 480) and 256 colours, the digital file-size of the image would require around 300 kilobytes of disc space to be stored, ready to be processed to the screen. CD-ROM in its Kodak form (Photo-CD) was introduced as the blandest mode for the presentation of images, though very convenient and with a lot of storage space and used mainly for the conveyance of images with resolution suitable for magazine reproduction.

Artists were among the first to pick up the broader potential of the CD-ROM medium as it emerged two or three years ago from the industrial stage to the desktop stage. Practitioners already using the early versions of Director, Photoshop and Illustrator could now see a way to getting their work off the fragile hard disc locked inside the computer and into a distributable form as a series of pits burned onto the more durable material of a CD-ROM, a medium also useful for the efficient storage of images collected as part of the production process.

As a means of conjoining a great multiplicity of material and sending it across the world, as evidenced by recent



The set of the second to be at an of a set of the second to be the total and the second total and total and the second total and total and total and the second total and total

research², CD-ROM has come into its own. However, the unusual number of skills that have to be acquired for artisanal production by the individual together with the excruciating nature of some of the software which, in the electronic age, has re-introduced the hazards of lace-making to interface design, make for an extended production period and thus the danger of ossification of ideas and concepts contained in the work — not much room for improvisation and spontaneous reaction.

The World Wide Web, as the test-bed for the heralded information superhighway, offers some relief here, and requires a little explanation. The Web is the part of the Internet which is fully capable of displaying typography, text, small-screen movies, sound and graphics. The setting-up of each screen (page) is undertaken using Hypertext Markup Language — HTML whereby simple codes are entered against parts of the page which need to have a particular appearance, or need to be linked directly to a contiguous part of the narrative. And this is the real innovative difference that distinguishes the web medium from all others — such as desktop publishing which it resembles — in that an electronic link can be established to another piece of text or image on the hard disc of the accessing machine, or it could be called from another hard disc down the room, or from another computer on the other side of the world. The software required to both 'view' and 'make' the hyperlinked pages is currently freely available. To view all that is needed is the connection to the Internet — this will vary according to the facilities offered by each service provider. To park artwork on a hard disc which is accessible 24-hours a day - a necessity if you want international representation — is a matter of renting space from a service provider; or from within an institution, borrowing the space.

This hyperlinking aspect theoretically will enable one copy only of each document, (picture, text, sound or movie), to be kept on one hard disc in one part of the world and for all uses of that data to be routed via networks from 'viewing' computers, wherever they may be. Currently, obtaining an image from the other side of the world can be an arduous process but over the next few years on the test-bed will evolve methods of doing this in a more practical way. But essentially, as a medium of distribution and exhibition, artists will be the first to evolve new means of extending its potential, as they have been in the development of the computer itself over the past fifty years.

It won't be long before the service providers are ready to connect homes in quantity and enable usage of this truly remarkable phenomenon which, in effect, gives anyone at a computer access to literally millions of other hard discs and the different kinds of information on them. But it will be many more years before the carrying capacity of the 'wires' can deliver, on demand, the kind of multimedia production currently available on CD-ROM. There is much to be learnt therefore, in this interim period, through continuing distribution on CD-ROM, and the hybrid forms. These forms allow the spontaneity of the Web to exist alongside the more grounded and substantial nature of what can be compiled onto a CD-ROM.

The process of the convergence of previously distinct mediums and the exploration of emergent computer-based forms has been tracked by several artists, but currently the New York based artist David Blair and a continuing project, "WAX or the discovery of television among the bees", is a good example of the imagination at work, at how it responds to changing conditions for its exhibition.

In an embodiment as 'electronic cinema', WAX was presented in Sydney in 1992 as part of the Third International Symposium of Electronic Art (TISEA) and tipped by John Conomos as "becoming one of the cult videos of the 90s"³. Included in the TISEA program by virtue of some computer generated footage cut-in with the live action, perhaps the comment should have referred to 'the cult project'. Already six years in the making, the same material has since developed into many new contexts.

The process of shifting from the chrysalis stage of the linear and analogue through pupation to the digital and polylinear of Waxweb took two years. It resulted in Waxweb being launched to the world over the Internet in July 1994. The project joined a parallel project in Computer-Supported Collaborative Work (CSCW), where users can collectively write, annotate, and explore hypermedia documents across the Internet. Specially written software, Storyscape, "allows people in difference places to add hypertext nodes and links to a single document. I asked 25 writers scattered in US, Japan, Germany, Finland, and Australia...I expected that the new contributors would act almost as an analogue poetry machine, creating unexpected narrative connections and material through their processes of reading/writing. If necessary, editors could go through the material, not deleting submissions, but adding indexes and other metalinking schema in order to give coherent shape to the material."4

The linear narrative of the video, (which of course includes any deconstructed narrative content), was transformed before our very eyes into a database of photo-images and written text, permutated by the interaction of the 'viewer' (responding computer operator?) into a multi-interpretable, multi-dimensional narrative referred to by Blair as "image-processed narrative".

All the picture and text material in digital form, at this Waxweb stage, was conveyed to the viewer's computer over lines from the host computer which auspices Blair, in the University of Virginia. Depending on the capacity and busyness of the connection between the host and client computers, time taken to 'draw' a screen complete with images can vary from a few seconds to a few minutes, which, when in pursuit of a narrative, can be tedious.

Thus the next pupation to hybrid form, the substantive part of the image and text database, with the video component relo-

cated into fifty short segments of about a minute each, together with the HTML reader software, compiled by Blair onto a recently released CD-ROM.

This embodiment of the project's material, still at an initial stage in its evolution, makes no attempt to harness the sleight of hand of the graphic designer. The on-screen appearance is reminiscent of commercial CD-Rom titles — that of the pages from a book, with titlepage, contents page, apologias, contextual writings of several kinds, and various forewords:

"The main body of the hypertext/picture document amounts to 3100 pages of text, and 1630 color stills, each in 3 sizes (about 5000)...(and)...the entire Quicktime version of the movie..."⁵

Interaction with the 'story' can occur from the front on three levels — overview, medium detail and shot by shot. The viewer can also enter from the Index either to the beginning of one of the Three Acts, (entitled, Alamogordo; the Desert; the Cave and beyond), or by picking through the fragments of words and images accumulated by the project over the eight years. The interaction has

begun - decisions have to be made. To be told a story, or to become an archaeologist?

"It's a strange story", (says the artist in one of the written documents included with the work — "One of the boldest examples of cinema as dream" says the Boston Globe). "But it is a story, and we've made a lot of effort to translate the time-based version into this stop and go medium. You don't get the clock-based flow, but you get an exponentially larger amount of association and detail that are important parts of this narrative style which you can't get enough of with time-based media just yet, not until controllable multiple streams become available. Metaphorically, I like to think that the real narrative

Hive-Maker and Ghosts Through the lens of a projector, we enter a film. The year is 1914, and James Hive-Maker, a Spiritualist Cinematographer, has travelled to the Antarctic in order to gather images of the dead. The next year, he travels to the Battle of Ypres, where he finds them floating above clouds of poison gas.

Hive-Maker's search is motivated by a belief that the Dead live near to us, illuminated by a moral decay similar to the glow of a radium watch. This light, and their Land, can be made photographically visible. By extension, Hive-Maker hypothesises that these living lights can visit our world (and that in reverse, we can visit their world).

to all this exists somewhere in the 4th dimension, from where it casts a variety of shadows of itself in various media — onto film, on Web, onto CD ROM, onto videotape, etc...⁶

The Prologue 'page' introduces the hero and narrator. Small photo-images pepper the lines of text. Since the CD-ROM is connected directly to the viewing computer's processor, images are drawn rapidly to the screen. This provides an aesthetic element not present in the Web version. Large numbers of small photo-

> images , up to thirty or forty for one page are drawn and do so as a rhythmic spawning, pulsing one to the next, as the computer methodically processes each image into view. The highlighted text and the photo-images are all hyperlinked to other parts of the narrative matrix enabling you to construct your version of the narrative sequence by simply clicking the aspect of your choice.

> The randomly generated narrative sequence is no stranger to writers as a means for exciting the imagination and commencing a technique of non-sequential writing based on the act of editing: in recent times, the French surrealists of the 30s and the junk writing of William Burroughs. In the Waxweb, in common with much of the emerging interactive art, there is no clue as to where you may be led by taking a highlighted option. Here, an 'indomitable' style reminiscent of boys adventure writing sets the tone for motivating the hyperlinked explorer to proceed. Hints at all manner of animal, vegetable and mineral occurrences abound, tainted with a whimsical uneasy sense of paranoia and general foreboding. Photographs from many sources plop into view, generally of a

minimalist nature and so confounding interpretation of a too literal kind. This is left to the fantasies of the writing in combination with the imagination of the reader, and so is reminiscent of other text-photo-image productions by various photographers, publications⁷ and film/video makers of the 60s and 70s — the 'golden age' of contemporary experiment? Individual photoimages sometimes leap out, usually the digitally spliced kind; juxtaposition and the unexpected within the unifying frame continue to grab the hunter's eye. As one slips from one level to the next within the snakes-and-ladders narrative space, the abstracted characters encountered remain as distanced as Brecht demanded but without the moral drive or direction. What remains is contemporary, cool and insipid.

What is confirmed is the other process, the existential, 'WAX, the discovery of meaning-making amongst multimedia users'! Memory, the crux of narrative, (and yes, computers too), is tested and teased by you the interacting computer user, like Del-

phine Seyrig's⁸ memory in Last Year at. Marienbad. As the fascination wanes for the cohorts of characters, the Hero and the Hive-maker, the active subjective memory is tested and tried as we struggle to 'fix' a photo-image, recall it, replace it, retrace it, and then to find it within the matrices, using the narrative incidents as clues to navigation from one gallery level to the next. Re-align it, retrieve it, first to the screen and so to active memory — is this the one? It

doesn't quite match. Next frame? Could it be a sequence of film frames with the fractional difference between each one? Is this where meaning is reduced to a tonal span?

Currently the enterprise has gestated another step from involving invited collaborators to an open invitation for all readers to join MOOs:

"MOO's are tools for computer supported collaborative work and play, etc., which allow realtime intercommunication they are text-based virtual realities...We have used the dynamic processes of the MOO to make it possible for visitors to add hypermedia to Waxweb..."⁹

So, the writer/creator is elevated, and the critic is retrenched — if you don't like it, change it! But given the project's track record, it will work in a way that will make visiting the Web site a kind of pilgrimage — an act of faith and an act of confirmation of the scope of the concept, the extent of which is still being defined, with fully networked virtual reality interactivity of narrative and hyperlink within a 3D world, (using VRML or virtual reality modelling language).

This further extension, to an endlessly evolving grand project, takes the photograph into a context for presentation clearly within the hands of the photographer, though only as an initial, provisional act, within the context of a MOO. Maybe the notion of the MOO, which theoretically can link every collection of images on a computer to every other collection of images on any other computer, announces the end of the director, the curator, the end of the cultural Frame? Well, no. Because like every other institution, it is the users, in most cases, who determine, for the most part, what the organism is to be used for — if there are enough people who want to be directed, they'll make their particular MOO.



The historical point we have reached is the equivalent to that reached by cinema having established the principle of the moving camera but prior to the dynamics introduced by editing — about the time Munsterberg wrote his study in 1916 of 'the silent photoplay'¹⁰. As an organic entity, Waxweb is an early model of future spaces. These will re-introduce an aural culture, richly inflected by the images and sounds of its users.

MIKE LEGGETT has film and video work in collections around the world and is currently researching electronic arts. He is curating an exhibition of art in CD-ROM for the MCA in Sydney in early 1996.

notes

- 1 "La Jetée" (France 1964) a narrative that explores through hundreds of photo-images, and a narrator soundtrack, the experiences of a group of people who survive an international nuclear conflagration.
- 2 Sydney Morning Herald 14.11.92
- 3 "The Story of Waxweb" David Blair Document on Waxweb 2.0 Alpha 3 29.3.95" CD-ROM
- 4 Introduction "Welcome to Waxweb 2.0 Alpha 3 29.3.95" David Blair
- 5 op.cit.
- 6 In the American context the work of Michael Lesy in particular with Wisconsin Deathtrip and Real Life, Pantheon, 1976.
- 7 In L'anné derniére á Marienbad the 1961 French film by Alain Resnais winner of the Lion at Cannes Film Festival.
- 8 "The Story of Waxweb" op. cit.
- 9 'The Photoplay: a psychological study', Hugo Munsterberg. pub. Appleton & Co, New York 1916, reprinted Dover Publications 1970.