

## ART COMMUNICATION AND TECHNOLOGY ART COMMUNICATION AND TECHNOLOGY

## TELECOMMUNICATIONS AND THE ARTIST

Telecommunications can be used both as an art form and as a means of contact between artists for the purpose of solidarity, information-exchange or self-promotion or to facilitate local or international art events.

The word 'telecommunication' derives from 'tele' meaning 'distant' so telecommunications means any contact over a long distance including smoke signals, drums, flags, beacon fires, carrier pigeons or presumably E.S.P. It has come to mean however those electrical communications methods in which information is transformed into electrical currents or fields and transmitted over electrical networks or through space.

Modern telecommunications started with the electric telegraph (telegraphy means writing at a distance). Then came telephone (sound at a distance). Both of these required continuous connection by wires. Radio communications or wireless was developed in the early 20th century.

The three main techniques that carry modern telecommunications are

1. Continuous wire or cable.
2. High frequency radio waves, which are reflected back from the outer layers of the ionosphere (the ionosphere is the electrically charged outer atmosphere) and
3. Satellite which returns ultra high frequency radio waves or
4. Microwave links to earth stations.

Continuous wire in the form of undersea or submarine cable carries some international telephone conversations, sound broadcasts, high-speed data transmissions, telegrams and teletexts. The sound is boosted by subsurface amplifiers spliced into the cables at intervals.

High frequency radio was the major medium of international telecommunications from the late 1920's to the 1950's. It is unable to match the quality and reliability of satellite or cable transmissions and is slowly being abandoned even for ships. However, **ham radio** is free, world-wide and of interest to artists.

The concept of satellite was first realised with **Sputnik**, the early Russian satellite. **Australia** is founding member of the first satellite communications system called Intelsat.

Satellites are in **geosynchronous orbit** — that is, synchronised with the rotation of the earth so that they remain in the same relationship to each other. When a satellite doesn't make it it goes into what is called **elliptical orbit** and is no good for regular use. Satellites carry an electrical device called a transponder which receives signals from earth, amplifies them billions of times and transmits them back to earth stations. The cost of the transponder is related to the cost of the technology needed to retrieve the signal.

Australia's domestic satellite has one high-powered transponder (or transmitter) which is currently up for grabs. The economics of the national satellite system that mixed use by small business and other small users such as hospital, educational institutions, libraries etc, is the only way that allows for public access. However there is strong lobbying for control of this time. A group called 'Business Communications Services' wants the time to be used by big business. The Public Broadcasting Association advocated a compromise between big business and minority-interest groups. In the event it looks as if the ABC and commercial interests will have 50%, and 50% will go to public access administered by the Public Broadcasting Association or special broadcasting services.

The danger is that laws of control and rules of precedence may be formed before the public has access to sufficient information or time to realise or absorb the significance of such information.

This is a move to declare the airways an international asset like fresh water, subject to international protection. In the meantime however even those bureaucrats with sympathy towards the concept of public access, talk in terms of 'programmes' and express fears that Australia will not be able to produce sufficient 'programmes' and will be forced to buy American canned material.

In America the deluge is already under way. It is called the 'TV of Abundance'. One local store in Dallas advertises 2000 sports events yearly, 10,000 movies, and five nightclub shows.

Douglas Davis, a **Newsweek** critic wrote 'More useful than usual. More interesting. Don't we deserve better', the American Carnegie Corporation in 1980 called for 'A non-profit voice in the 80's devoted to the performing arts, culture and entertainment'.

In America it costs about one million dollars to rent a satellite channel or transponder for a year. Once 'bought' the time can be used for special interest purposes. Who can we trust to buy and

imaginatively redirect that time.

Douglas Davis writes 'We expect the print industry to supply us with both poets and comic books. We should expect no less from the new era of abundant cross-country networks.'

In Australia the concept of using television for something other than the commercially sponsored programmes needs to be demonstrated publicly. Radio is showing the way to some extent. Commercial television — by that I mean work packaged to sell, is based on formulas of content, structure and language which invoke only predetermined responses. Philip Adams when television came of age said 'Not twenty-one years of television, one year, twenty-one times.' Yet there is a wealth of experience, perception, history, humour and creative thinking in the community generally which is not being tapped and communicated.

Robyn Williams of the Radio Science Show said 'The programmes, I and my colleagues do, depend on ideas and initiatives from ordinary people.' He added 'They are not professional broadcasters. It's my job to be available, to be a channel to the suggestions that come from all over the place, rich or poor, town or country, young or old, black or white ... He went on to say that the team ended by up by presenting a picture of society to itself, not one of absolute truth or fidelity but at least one that is created in the main by members of the society. Not a picture made up by quiz contestants, cops and coppers and Bert Newton.'

We have not even begun to think yet of all the ways that television can be used for the creative enrichment and social extension of people.

Our video artists are desperately disadvantaged by having no opportunity to distance themselves from their work by seeing it exposed on public television and no opportunity to observe the effects of different visual approaches to communication. The artist needs to be positive if not aggressive in the determination to communicate directly with the public — not via commercial channels using commercial formulas.

Stephen Spender the poet, said in 1946, 'The pithheads, slagheads and the ghastrly disregard of anything but the pursuit of wealth are the symbol of modern man's mind. The world which we create is a kind of language of our inner wishes and thoughts ... It is a confused language, an irresponsible senile gibberish ... the phenomena created by humanity are like the words in a language. What kind of language do we really aspire to ... I think it is a language of flesh and roses.'

The technology that is exploding in the 1980's will create a new language.

John Bleibtrau the French biologist wrote 'It seems we are in the process of creating a mythology out of the raw materials of science in much the same way as the Greeks and Jews created their mythologies out of the raw materials of history!'

If this is true then we should not leave it to the men (and they were men) who created the language of pithheads and patriarchy. They were men of

business, men of wealth; men of politics not men or women of the arts.

At the Biennale in 1982, Peter Fuller the English critic and academic talked reverently of John Ruskin. John Ruskin is the man largely responsible for artists turning away from developing industry in the nineteenth century and thereby losing an opportunity to influence it.

To invoke Ruskin in 1982 and to say, as Peter Fuller did to me that there is no possibility for aesthetic value in the arts areas of new technology, and it is therefore irrelevant to artists to repeat the great mistake. Artists should now be exploring the possibilities in new technology with an open (not necessarily exclusive) mind. They should be investigating ways to gain continuing access to it and developing a philosophy regarding it and the way it should be used before all the points of reference are fixed.

Women particularly must not allow themselves to be left out again. They should consider that perhaps the ground they are gaining in the conventional arts areas may be ground not worth the winning because it could be barren — unable to produce the crop of ideas and values that will sustain the 2000's. Artists, particularly women artists have never before had such an opportunity for input into the structured frames that mould thinking.

The medium of political relevance for artists is certainly no longer canvas. It may well be the air waves. But if visual artists are to be encouraged into areas of new technology they have to see possibilities for satisfying visual expression. This means they need access to the equipment to work out new aesthetics not based on classical notions of beauty, and new philosophies not based on the artists role as the maker of objects and self-referential objects at that.

Many of the artists who are already involved in new technology were or are painters, sculptors, designers, craftspeople or architects. They include writers, composers, and poets. Such diverse talent matches the diversity of telecommunications — radio, telephone, telegrams, telephoto, telefax, teleprint, telex, electronic mail, electronic blackboard, electronic newspaper, or teletext, videotape, videodisc, slow scan television, cable television, satellite television and so on.

These include real-time transmission and sound, text and graphic storage and retrieval systems.

The most significant extension is computer technology which brings access (not necessarily ownership) within the reach of people without big money. It is a time when the most advanced techniques have provided the opportunity for better quality sound and more precise and detailed image transmission and the addition of colour in some cases which is very relevant to the visual artist. New computer languages are close to English and require virtually no study. Computer technology is access technology.