

# GET READY FOR THE SWINGING 2060s...

What will life be like five decades from now? **Mark Webber** on a cybernetics visionary who believes man and machine will become one

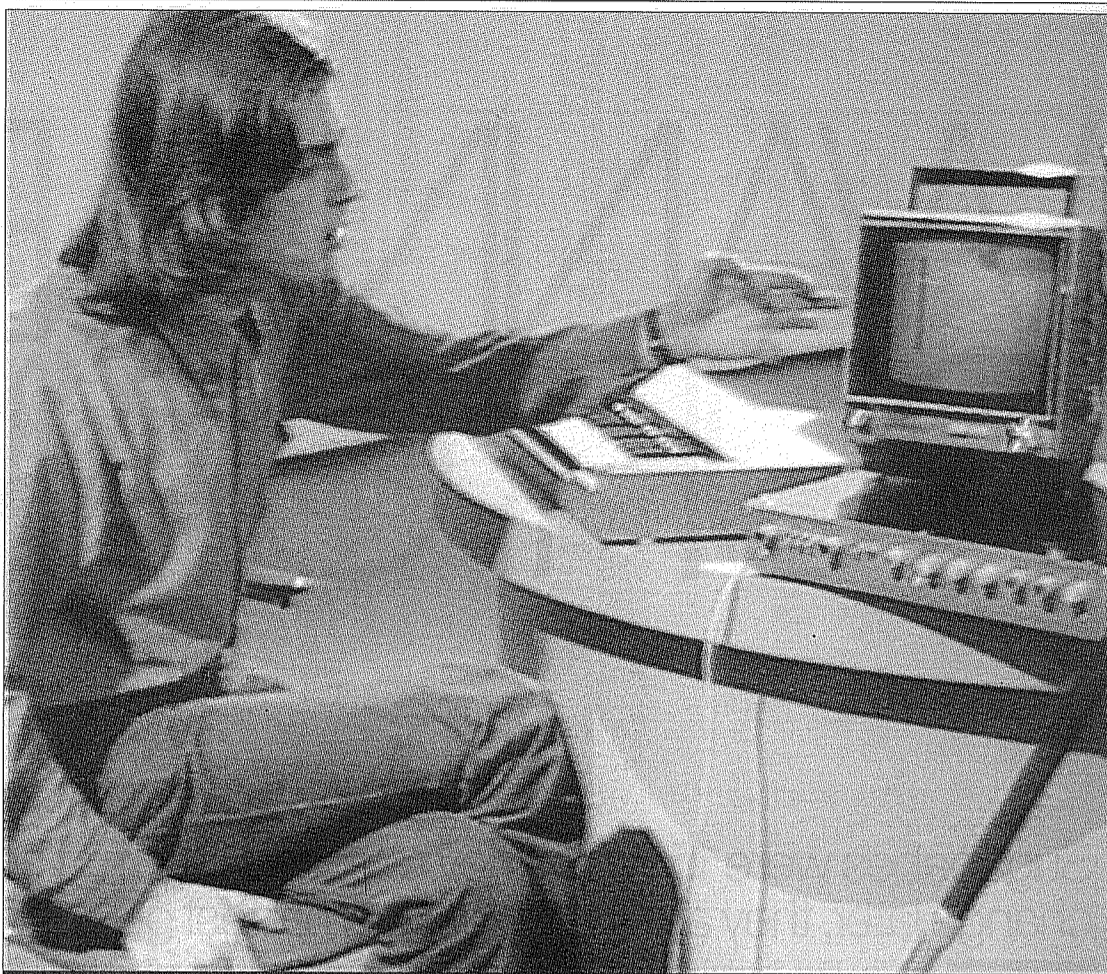
**E**rkki Kurenniemi is preparing for the year 2060, when he believes that computers will be able to simulate the brains of all humankind. When the computer develops its own consciousness and emotions, our bodies and minds will become redundant. Having first embraced cybernetics in the late 1960s, when he began to build some of the earliest interactive computer instruments, Kurenniemi has for many years been avidly documenting almost his every movement in notebooks, photographs, audio and videotapes in order to make it possible for a human life to be reconstructed in the future.

The films of Finnish director Mika Taanila give us precious glimpses into a lost era of idealistic thought and innovation. Topics that might easily be dismissed as kitsch oddities are treated with respect for their achievements and aspirations. For *Future Is Not What It Used to Be* (one of three of his films touring the UK together this autumn), he finds a truly visionary subject in Kurenniemi, a scientist, artist, musician, film-maker, theorist and all-round

cybernetic pioneer. In an early recording, Kurenniemi predicts: "In the early 21st century, people and computers will begin to merge into hyperpersons. It will be hard to say where man ends and machine begins."

In 1961-62, at the request of a professor, Kurenniemi started to create an electronic music studio at Helsinki University, building primitive computer processors from circuits and transistors. After eventually dropping out, he built his first synthesiser - the Andromatic - as a commission for Swedish avant-garde composers Leo Nilsson and Ralph Lundsten.

Towards the end of the decade, as the hippy movement became more influential, Kurenniemi's love of technology was diverted into creating instruments that would demonstrate the love and togetherness of society. He believed in primary experience above secondary observation, and his next innovation was the Electric Quartet (1968). This "mutual instrument", all jack plugs, curly cables and flashing lights, was collectively operated by several musicians at the same time. In archival footage in Taanila's film, a bowl-headed, serious young man with a goatee beard introduces a 1960s music programme



Like a crazy fusion of *Blue Peter* and *Tomorrow's World*... Kurenniemi with his Dimi-O synthesiser

**“**He invented the Sexaphon - a musical computer played by scantily-clad people touching each other **”**

similar to *The Fast Show's* Jazz Club sketch. In the background, three men sit cross-legged around the electronic brain, tugging at tiny joysticks, as the presenter austere reads a statement: "Young people find the existing system defective. Underground's efforts and ideas, which may seem quite odd, have a clear function. We want to show that these notions are as rational as the political decisions of this day and age."

In 1969, Kurenniemi built the Dimi-A, a small music processor that could memorise and repeat up to 500 actions. Controlled by a hand-held stylus on a flat, open circuit, it looks like a flattened Stylophone. It was the first of his instruments to go into commercial production, through the company Digelius Electronics. This was followed two years later by the video, or optical, organ, which is operated by a conventional keyboard. The Dimi-O synthesiser, connected to a monitor and video camera, is able to scan a moving image and reinterpret it as electronic impulses that modulate the sound output. The system is demonstrated in footage from a TV science programme in a spectacularly modern way, using expressive dance and video feedback; it all looks like a crazy fusion of *Blue Peter* and *Tomorrow's World*. The Dimi-O was also used in an experimental production of Samuel Beckett's *Act Without Words II* at the University of Oslo in 1972.

A third machine brings to mind the Orgasmatron from Woody Allen's *Bananas*. Colloquially referred to as the "love machine", its technical title was the Dimi-S, or Sexophon. A series of diodes and sensors connect three or four people to the machine by "handcuffs". The sounds are created by the participants touching each other, with the variations in sensitivity regulating the output. It's Musical Twister; gropes and giggles. With clothing being a too-efficient insulator, more satisfying music could be created by scantily clad (or nude) participants.

The music produced on these and other instruments was built on a foundation of primitive sequencers, not unlike the bass stations in which acid house was created 20 years later (just add percussion and away you go). Kurenniemi's reputation as a musician was not helped by an almost complete lack of available recordings. This problem was recently addressed with the release of a 12-track CD of electronic and tape compositions, called *Recordings 1963-73*, that shows Kurenniemi to be an unacknowledged contemporary of John Cage, Pierre Schaeffer and Karlheinz

Stockhausen. It also positions him as a direct precursor of Finnish avant-garde duo Pan Sonic, who have been active in trying to gain recognition for such early, obscure works.

Digelius failed to capitalise on Kurenniemi's technical innovations, and following the company's bankruptcy, Kurenniemi worked in industrial robotics for many years. Later TV footage from the 1980s shows him predicting the ubiquity of home computers and our future reliance on technology. In 1983, he's seen playing his favourite computer game in his office: "It's a peaceful war game."

Kurenniemi continued to believe in the advancement of the human race through science, and his idealistic aspiration for the future is that everyone will start to "make science, rather than endlessly watching sports on TV", working collectively to solve problems, for the good of the whole planet. His interests lie in the unsolved questions that will really change man's view of his place in the universe, such as colonisation of the moon and Mars. "If we are going to make war, better to do it in space. The solar system will not be cramped."

For the "manic registration project", which has occupied Kurenniemi most recently, he claims to have been taking 20,000 photographs per year, "and I should perhaps double that to some 100 per day". Each is touched up and filed on a hard drive for future reference. Piles of scrapbooks keep every sales receipt, tram ticket, stamp, and magazine cutting. "If freezing and reviving a body can't be done biologically, let's store the mind and the consciousness in bytes. It makes sense to have a backup by registering everything: images, sounds and thoughts. In 50 years from now, they can be fed into a pocket computer." Considering himself part of one of the last generations that medical science will be unable to save biologically, his obsessive documentation will provide the raw data with which to preserve and construct his "virtual persona" at any point in the future.

Returning to his ideological roots at the end of the film, Kurenniemi speculates on a time in the future when people, facing another 100,000 years of uneventful life, will have nothing to do but make interactive video art, compose music and study old archives, like the one he is creating, "... or maybe they'll just watch porn."

Three Films by Mika Taanila, including *Future Is Not What It Used to Be*, tours until November 6. See [www.lux.org.uk](http://www.lux.org.uk) for details.

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