1. History: The La Trobe University Music Department was established in 1974 by Professor Keith Humble, and its first classes were offered in 1975. Electro-acoustic music was introduced into the curriculum with all first year students creating musique concrète pieces in a tape lab installed by Ted Grove. Warren Burt arrived in late 1975 armed with a large number of Serge Tcherepnin analogue synthesizer modules, which formed the heart of the analogue synthesis equipment into the 1980s. Jim Sonin introduced basic acoustics, electronics and other audio theory into the curriculum in 1976, and established the first recording studio the following year. The Department then combined with the School of Physical Sciences to develop courses in physics for music students.

Several unique instruments were acquired in the 1970s. The first of these was an electronic keyboard that had programmable microcircuit - the Scalamon. The second was the EMS Spectron video synthesiser. In 1979 the Department took its first steps into the digital world when it installed a Digital Equipment Corporation PDP 11/10. Graeme Hair returned from the United States with a copy of MUSIC48F, which was adapted for the University's DEC 10, and later ported to the VAX 11/780, by Kim Horsell and Graeme Gerrard. Software synthesis was carried out on the VAX and digital to analogue conversion was performed on the Music Department's PDP 11 using software written in-house. Graeme Hair and Jim Sonin introduced the course in computer music programming in 1980.

In the 1980s the microprocessor exerted its influence and the Department purchased a Charles River Univers 68000 computer for software synthesis. Keith Winter became interested in the new desktop technology and a number of Apple II and BBC computers were acquired for use in teaching. The introduction of MIDI and the release of the Yamaha DX7 enlivened Jeff Pressing's interest in music synthesis and he developed a MIDI-based synthesis subject. The Department's strength in music and technology was finally cemented in 1989 when Jeff Pressing, Jim Sonin, and David Hirst introduced the Graduate Diploma in Contemporary Music Technology. The facilities for undergraduate teaching at this time consisted of three Macintosh-based composition laboratories and a recording studio - purpose built in 1988. Research was carried out in the Synthesis Research Lab on Macintosh and NeXT hardware.

Although most composition was studio-based, live performance was explored through Pressing's Ondimo synthesizer ensemble and Hirst's Beli and Whistle Company interactive performance collective. In 1994 Jeff Pressing moved to the Psychology Department of Melbourne University and in the same year the La Trobe Music Department became a department of the School of Arts and Media along with the departments of Design, Cinema Studies, and Media Studies. In this expanded context David Hirst formed the Digital Media Research Group, and the Synthesis Lab became the Digital Media Lab with the addition of PowerDesk-based multi-media authoring equipment. In 1993 Prinecture graduate, Alistair Riddell, was appointed to the staff as a postdoctoral research fellow. Larry Polansky will be eternally visiting Fullbright Fellow in the second half of 1996.

2. Education: Since the Department's foundation students have majored in Music within a three year Bachelor of Arts. Students can specialise in any one of five streams in music: Composition, Performance, Musicology, Audio Recording and Computer Music. A Bachelor of Music will be introduced in 1996 to allow students to specialise in any of the above five streams. Honours is offered as an extra year of study in both the BMus and BA. The Graduate Diploma in Contemporary Music Technology is a postgraduate year of study made up of coursework and a major project. Coursework consists of computer music programming, MIDI systems and audio recording. Further postgraduate study is by research alone through the Master of Arts and PhD programs. Course details can be obtained from the Department's World Wide Web page (see below).

3. Research: In the recent past research areas have been a reflection of staff research interests. Thus Jeff Pressing's interests in improvisation and technology led him into the cognitive science field. Jim Sonin has been interested in signal processing and spectral control devices. David Hirst has carried out work in computer-assisted composition and analysis of electroacoustic music. Cross-fertilisation has also occurred, for example, in the work done on real-time DSP on the Macintosh by Jim Sonin, David Hirst and Graeme Gerrard (while he was at Melbourne University).

4. Concerts and Compositions: La Trobe generally hosts two computer music concerts a year, and collaborates with other Melbourne producers to present computer music to a wider audience. The most notable recent example was a collaboration with the Astra Music Society at Melbourne's newly-opened Science Museum. La Trobe also has a close relationship with the Australian Computer Music Association. Both studio-composed computer music and live electroacoustic works are created at La Trobe, as is shown in the following list of recent works: Adam, S. Pyrotechnica. Fast Window. Chronophony: Storm in a teacup - all for computer-generated tape. Aaloep, R. Sea Vision - for piano and delay, based on a poem by Alco Skouron. Bell, R. Momentum. Theme and Variations for Synthesizer - both for Casio Qm synthesizer and Vision. Hirst, D. and G. Garrard. Reaction: controlled feedback and real-time signal processing. Hirst, E. and G. Leak. Interactions - for percussion and real-time signal processing. Hirst, D., Collesai - computer-generated tape, Joyce, S. Musical Score & Sound Design for the following films - 'Scrooglish Night', 'Loop'. 'Fishing'. 'Lonely Planet', 'Crimson Toppers', 'Thangath's Bedroom', McDowall, T. On the Plains - Computer music to accompany a solo dance. Pressing, J. His Master's Voice - for live voice, two MIDI keyboards, sampler, and real-time DSP software developed by Garrard, Sonnin, & Hirst.

5. Facilities and Technical Support: In the last few years the Department has established: the au-computer-music listerv mailing list for Australian computer music; an ftp site ftp.larothe.edu.au for its original Macintosh software (see /pub/music); a World Wide Web page http://farben.larothe.edu.au/Musici_Docs/Mac/Dept/HomePage.html.

The Computer Music Studios at La Trobe University consist of: a Digital Media Laboratory, 3 Composition Laboratories, and Max and Live Studio Suite. They have the following configurations: Digital Media Laboratory: 2 x NeXTcubes (one with ISPF), Proport A/D box, DAT backup, CD-ROM, Macintosh IVa, ProTools DAT recorder, Korg wavestation, IRCAM Max, NeXT public domain music software, Opcode Max, Sexual Designer II, Csound, Anna.Lina (Analyse software developed at La Trobe), a Power Macintosh 8100, 2 x 7100s, Kodak CD-ROM writer and software, DAT backup, Digitizing tablet, Colour scanner, Director, Photoshop, Illustrator, Premier, Painter, InfiniD. Composition Lab A & B are both MIDI-oriented, with the following equipment: Macintosh Ici (Lab B), Power Mac G300AV (Lab A), Opcode Max, Roland U20 keyboard, Csound, Anna.Lina, and other in-house-developed software for the Macintosh. Recording Studio Suite consists of 1 control room with 2 studios: 16 Track Alexis ADAT digital recorder, 24x8 Mackie mixing desk, Lexicon PCM 70 digital effects, 2 x Tascam DAT recorders, Sony PCM / beta digital recorder, Digital delay, flanger, graphic eq, parametric eq, dbx, MCI 2 track recorder, Otari 2 track recorder, 16 assorted microphones, Tannoy studio monitors.

It is important to acknowledge the fine technical support the Department has experienced from firstly Julian Driscoll and then Tony Falla and Chris Lai. Much of the hardware and some of the software in recent projects has been designed and built by Chris and Tony.