

## Equipment and recording techniques from 1963 - 2011

The records made at Bretton and in Moodie's Bar, 1966 to 1967, were all recorded straight to the final master tape, with occasional over-dubbing, for example, on Jane Westlake's double-tracked vocal in 1966 'I still miss someone' which was Mike's first double-tracked recording.

Microphones were primitive: some were just the plastic ones supplied with the domestic tape recorders Mike used. First he had a BSR two track which recorded at 3.75 inches per second; then a Collaro deck for which he built the electronics; and finally a Truvox which ran at 7.5.

No 9 Bread St was recorded on a 1/2 track Truvox using a mixer Mike had built, and mics ranging from a plastic Truvox mic to 2 Film Industries ribbon mics. Reverb is natural or from the spring reverb in a Bird amplifier. (This was later mastered at Porkies for the CD)

Moving to Cass Yard, Mike bought a Brenell - a semi professional machine, stepping up to a stereo Ferrograph around 1970. On this machine most of the major albums were made - bouncing from track to track to add guitars, vocals or other musicians. A couple of AKG mics improved the sound further, and two mixing desks were built by Mike and Ted Hepworth. The second desk, shown below, was installed just after Astral Navigations was completed in 1971.

A-Austr was recorded in mono between 1968 and 1970 at Cass Yard on a Brenell and a Truvox.

An early set-back was the theft of the Brenell tape machine, and along with it several tapes, which probably included early acoustic blues from Thundermother musicians, especially David John; and from Bill Nelson's tracks with Global Village. There were live recordings too of both Global Village in Clarence Park, Wakefield and Thundermother at Bretton.

Astral Navigations used multi-fuzzed guitars, headphone phasing, and an amplified stylophone amongst other effects.

In 1970, and right up to 1973, Mike used a Ferrograph Series 7 tape machine, bouncing from track to track, ending up with a mono recording. In early 71, he upgraded to a new mixer, built, like the previous one, by Ted Hepworth. In July 1974 yet another new mixer was built, with the help of Dave Klaus, and Mike bought a 4 track Teac tape machine.

From the Skybird album in August 1974 Holyground went stereo. It was also possible to remix tracks later on, rather than having to be sure of a balance each time something else was added. The speakers were upgraded to a pair of JBLs.

New AKG mics were bought, and in February 1975 a Revox tape machine and amplifier replaced the ageing Brenell. With new compressors and more tone controls the quality of Holyground recordings improved, although each track still has the unmistakable Holyground stamp - what one reviewer saw as the "hidden player" on all Holyground recordings.

Tears on the Console was recorded on the 4 track Teac.

The studio was still the 12 foot by 12 foot room; the control room was still the top of the stairs. Groups still lugged amps, drum kits and even a Hammond organ up two twisty flights of stairs. At the end of the Tears on the Console sessions, the owner of this Hammond, Mike Spurr, could not face the return journey, so it was "split" into two. An electrician sorted out the plugs and sockets, and Mike was only too eager to take a rip-saw to the mahogany!

For a time, after Holyground closed down at Cass Yard, Mike was able to use the 16 track machine at Aim Studio in Doncaster.

All editing for these reel-to-reel recordings was done by means of a razor blade and metal splicing block with the tape joined by purpose-made editing tape.



*4 track Holyground mixer, image courtesy Rob Colling*

By the time Mike was again recording in the 1990s equipment was changing rapidly. Digital recording gave musicians access to many more sonic possibilities and more powerful recording techniques. At Holyground we rode this wave, slowly acquiring new equipment with new technologies over a twenty year period, approximately 1990 to 2010.

#### **Key changes in equipment** - roughly chronological

16 track Soundcraft desk

Outboard units - compressors, limiters, reverb units

Midi recording using an Atari ST computer driving:

    Roland MT32 for generating pads & organs

    Drum machine

Mastering to DAT

Use of Apple Mac + Logic to record audio

Use of digital keyboards (Kawai K1, Korg M1)

Proteus FX

Trace Elliott Bass Preamp

Improvements in recording space - Gobo acoustic screens made and used

New microphones

Details of the equipment in 2011 are listed on the "Studio Equipment" page