FORUM

ON A "ROSETTA STONE" FOR ACOUSTIC RECORDINGS

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In the May, 1974, issue of the *Journal*[1] Heyser asked if there were any means of providing a "rosetta stone" for current sound recordings, i.e., a means of indicating to the devices of a future technology subtleties of sound information that existing playback technology cannot recover. Has anyone noted the possible existence in acoustical horn records of "rosetta stone" information that allows a degree of stereo effect to be recovered?

Due to the proximity of performers to the recording horn, different parts of the horn structure were subjected to different sound pressure waveforms containing differing proportions and phases of the various live sound sources. Moreover, in some cases, a nominal lateral-cut recorder allowed a degree of vertical movement of the cutting stylus. It therefore seems possible that many acoustic records might contain a residual stereophonic effect related to the original spatial distribution of sounds.

I have tried playing various acoustic recordings using stereo equipment, including a stereo cartridge fitted with a truncated ellipsoidal stylus to minimize tracing and bottoming distortion products. While many provide a definitely "mono" effect, quite a number are found to have a remarkable sense of acoustic space which disappears when played in mono. When the stereo output of such records is displayed on an X–Y oscilloscope, a substantial departure from the mono straight line is found. Unfortunately, the vertical modulation component of most acoustic discs is very noisy, this seemingly being caused by the cutting rather than the pressing to judge from recently available vinyl pressings of acoustical recordings. This noise tends to blur the X–Y oscilloscope display sufficiently to obscure any fine structure of the trace. It is thus unclear whether departures from true mono are simly caused by relative phase shifts acting on the same information on the two groove walls, or whether the information differs significantly. Certainly, if relative phase shifts on a single signal are responsible for the pseudo-stereo effect on acoustic discs, this method deserves investigation as an effective way of producing pseudo-stereo from mono sources by electronic means, because the increased spaciousness obtained on these discs is more convincing than any artificial stereo that I have so far heard.

While it is difficult to be certain, there does seem to be a marginal separation between instruments on some acoustic discs, and one also notes some improvement in one's ability to distinguish between musical lines. The sense of distance improves markedly on some discs in the stereo play mode. All this is suggestive of a residual but genuine stereo effect, albeit one in which the directional information is scrambled by the vagaries of the recording horn.

Even if it exists, the residual stereo information may be of little use due to the high vertical noise levels, but it seems worth investigating further whether the acoustic era has unwittingly left us a rosetta stone for recovering stereo sound.

[1] R. Heyser, "A Rosetta Stone for Audio," *J. Audio Eng. Soc.*, vol. 22, p. 251, May 1974.

GOOD SCHOOLS NEVER DIE; THEY JUST CHANGE THEIR NAMES

WALDEMAR HORIZNY

Technical Career Institutes

I read with interest the April issue of the Journal of the Audio Engineering Society in which reference is made, on page 182, to the closing of the RCA Institutes's school in New York City.[1] Paraphrasing Samuel Clemens, this school has not suffered a deminse since it has never closed or ceased operation. Instead, the RCA Corporation has turned over the operation of the RCA Institutes's Resident School in New York City to its faculty. The school has been renamed Technical Career Institutes, and RCA, recognizing the importance of keeping this world-renowned school in existence, has given it a $450,000 grant to ensure its success.

TCI is housed in the same modern building, uses the same classrooms, laboratory and equipment and has essentially the same faculty as RCA Institutes. Our student enrollment for the Fall 1974 term has reached a high watermark of 1,000. Considering that the number of continuing RCA students was in the low hundreds at the time Technical Career Institutes came into existence, the acceptance of TCI by the enrolled students, as well as the educators, counselors, friends and RCA graduates who advised them, shows the high esteem in which they hold the successor to RCA Institutes.

Although many technicians and engineers in the field may be aware of the history of Technical Career Institutes, perhaps a mention of this in the Journal might be appropriate for those not cognizant of this fact. Further information may be found in our catalogue, available on request from Technical Career Institutes, 320 West 31st Street, New York, N.Y. 10001.

[1] David J. Pastrino, "DeVry Helps Fill A Void," J. Audio Eng. Soc., vol. 22, p. 182 (April 1974).

BIBLIOGRAPHY OF AUDIO TECHNIQUES AND ISSUES continues on the right. The September Journal (pp. 559-560) listed categories which we hope to publish, but we need your help. Contributions can be complete subject areas or groups of references in any listed category.