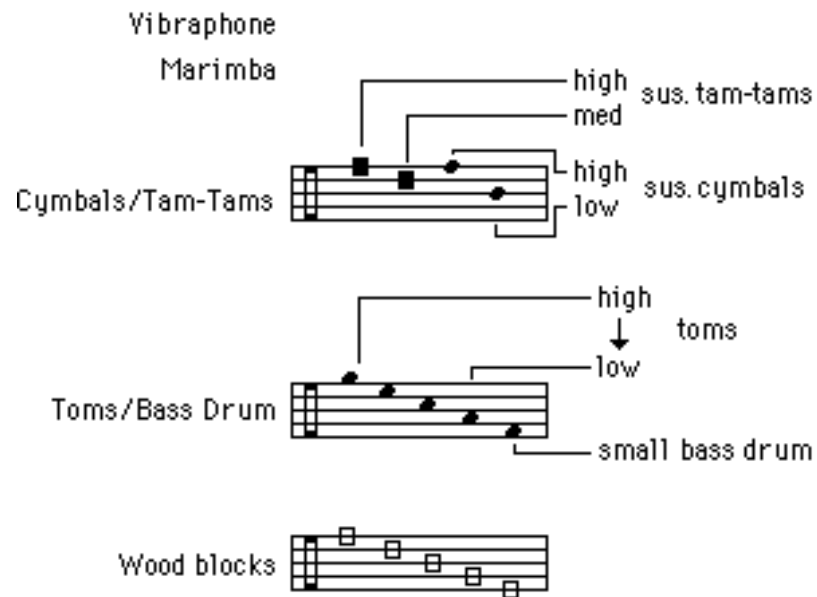


•PERCUSSION INSTRUMENTS•



Percussion mallets should be chosen using the following guidelines: Toms should be played with medium hard to hard mallets, the resulting sound being tight with little lingering resonance. Cymbals and tam-tams are to be played with medium soft mallets, with the one exception for the tam-tams stated below. Marimba is to be played with medium hard to hard mallets; vibraphone with medium hard to hard mallets in the first section and soft to medium soft mallets from letter "I" to the end.

•SPECIAL PERFORMANCE NOTES AND INDICATIONS•

vibes: Motor is to be on medium for the beginning through to letter "G" where it should be changed to slow. "Ped. down to B, etc." indicates that the sustain pedal remain down until the downbeat of the specified measure. There should be no re-pedaling during the measures specified.

perc. mm.1-16: All tam-tam attacks to be played with the stick end of the mallet.

perc. mm.168-179: Notation is approximate effect desired. Player can improvise but must follow the approximate result indicated in the score.

Clar. mm.181-210: Spacious with a sense of suspended time. Allow phrase ends to settle; don't move too quickly.

•COMPUTER/ELECTRONICS•

The electronic part of *Points In the Sky* consists of a series of computer sound-files which are played in sequence by the percussionist depressing a foot pedal. Equipment necessary:

- Macintosh computer
- Mark of the Unicorn (MOTU) 828 firewire audio interface.
- Footpedal

Optional but recommended equipment:

- Mixer
- Reverb unit

All necessary software and more detailed setup information is contained on the computer CD supplied with the performance package.

•SETUP AND AMPLIFICATION•

Ideally, both the clarinet and the percussion should be amplified. It is recommended that a single boom mike be suspended over the clarinet (although a high quality barrel mike works well also) and that both the vibes and the marimba have separate microphones. These three microphones should be routed to a mixer as three of the input channels. The outputs from the MOTU 828 should be routed to two other input channels on the mixer. The mixer output should then be routed via an amplifier to the main stage speakers. Since the tape levels can be quite high, these speakers must be large, high quality units intended for hall sound reinforcement. Speaker placement should be far enough forward (toward the audience) to avoid feedback from the microphones. It is also recommended that the performers have separate monitor speakers over which the computer part (only) is played. This will insure that the performers can clearly hear the electronics since the main speakers are ideally placed in front of them. If possible the clarinet input should be sent to a reverb unit and returned

to the mix via auxiliary sends. Little or no reverb should be employed until m.186 at which time the reverb should be increased to give a spacious, haunting effect through to the end.

•PROGRAM INFORMATION•

Points in the Sky is the first of a projected series of works for live instruments and computer controlled electronics. In this particular composition the computer is treated as simply another performer, one who is capable of leading as well as following and one who has a specific, established part to perform. To a large degree the percussionist functions as the conductor, or perhaps more accurately, the coordinator. Through the use of a footpedal, the percussionist conveys triggering information to the computer which, in turn, is programmed to respond by producing various sound textures. *Points in the Sky* was written for and dedicated to clarinetist Robert Spring and percussionist JB Smith under the sponsorship of the Arizona State University Institute for Studies in the Arts.

Glenn Hackbarth was born in Milwaukee, Wisconsin. Following an early training in jazz, he received degrees in music from the University of Wisconsin and the University of Illinois, where he studied composition with Herbert Brun, Ben Johnston and Edwin London. In 1976 he moved to Phoenix to join the faculty at Arizona State University where he is currently the director of both the New Music Ensemble and the Electronic Music Research Studios as well as resident artist with the university's Institute for Studies in the Arts. The recipient of grants and awards for

musical composition from ASCAP, the Arizona Arts Commission and the National Endowment for the Arts, he has composed for a large variety of instrumental combinations in both the acoustical and electronic mediums. His music is available on the Crystal, Access, Advance and Orion labels.

For information regarding performance materials for *Points in the Sky* contact:

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Bio, program notes, and a recording of this work are available on the web at:

<http://www.public.asu.edu/~glennh>