A POSTCARD FROM CAIRO

THESIS

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

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*A Postcard from Cairo* is a chamber work for three performers (flute/soprano saxophone, vibraphone/conga, and electric guitar) supported by stereo tape and two digital sequencers.

The musical content is a montage of Arabian, Indian, Spanish, and Moroccan ethnic music, combined with avant-garde sounds. The score reflects a mixture of traditional and contemporary elements featuring extensive use of improvisation and repetition. Each player is required to coordinate his responses in a variety of ways. Cues are governed by an analog clock, and pulses are provided by the tape/sequencer background.
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ANALYSIS AND DISCUSSION

Introduction

A Postcard from Cairo is a chamber work for three performers (flute/soprano saxophone, vibraphone/conga, and electric guitar) supported by tape (containing some musique concrète, and a Spanish guitar quintet) and two digital sequencers. Performers will observe an analog clock for their entrances.

Compositional Techniques

Tape source and sequencers.—Together these two sound sources provide a fixed, unchanging backdrop for the variable performance interpretations of the trio.

The performance tape is a stereo mix of eight tracks. The first three contain segments of some previously recorded Indian improvisational music filtered through a twenty band equalizer, emphasizing the percussion sounds (mostly tabla drums and clay pot) and de-emphasizing others. These segments are then manipulated in various ways (re-recorded at different speeds, reversed, juxtaposed, etc.) and serve as deep background of the work.

The remaining five tracks are used for the guitar quintet. A particular effect is produced by having all prevailing parts synchronized to the same pulse while at various fractions
of a second apart. Figure 1 represents the quintet saturation point of section B that occurs at 3'27" in the score. (See figure 1).

![Musical notation](image)

Fig. 1--Quintet saturation point of section B.

Each of the above is recorded separately using a click track, and all entrances are guided by a clock. The result, while homogeneous in timbre, is fractionally syncopated. Figure 2 shows further progressions of this basic texture.

A different, phase-shifting type of pattern occurs at 6'15" of the score. (See figure 3). This is based on an idea first developed by Steve Reich:

1 A real-time indication.
On Lincoln's birthday in 1968 I had the idea that if a number of single tones were all pulsating at the same tempo, but with gradually shifting phase relations, a great number of musical patterns would result. If the tones were all in phase (struck at the same instant), a pulsing chord would be heard. If the tones were slowly shifted just a bit out of phase, a sort of rippling broken chord would be heard which would gradually change into a melodic pattern, then another, and so on. If the process of phase-shifting were gradual enough, the minute rhythmic differences would become clearly audible. A given musical pattern would then be heard to change into another with no alteration of pitch, timbre, or loudness, and one would become involved in a music which worked exclusively with gradual changes in time.

Fig. 2 -- Further progressions of figure 1.

In figure two the upper voice continues its pattern while the lower voice shifts its melodic and rhythmic elements to the

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left with each set of repetitions.

![Fig. 3--Phase-shifting pattern.](image)

The use of ostinato in the taped guitar parts is broken by the free, improvisatory arpeggios at G (see figure 4), but returns briefly near the end.

![Fig. 4--Improvisatory arpeggios of section G.](image)

The keyboard sequencer (seq. A) plays two kinds of figures, each divided into three parts. Figure 5 shows the total saturation point of these six patterns that culminates at letter I (10:55). The top three voices are characterized by long, sustained tones (all in proportional notation), interrupted occasionally by a short motive. Activity of the bottom three voices is confined to various dynamic shadings of
Fig. 5--Saturation point of six sequencer A patterns.

the given ostinatos.

Sequencer B is stored with percussion sounds which begin playing at letter B in the score. A 1-96 pulse division allows the composer to program very complex rhythmic events. A non-metrical effect is thus created while passing a cymbal roll. (See figure 6). Later, use is made of several Moroccan drum beats (see figures 7a, b, and c)³, and modified habanera rhythm. (See figure 7d)⁴.


⁴This was originally a two-beat pattern, modified by William Walton into three for the third (Alla Cubana) of his Five Bagatelles for Guitar (Oxford, 1974), pp. 8-9.
Fig. 6--Passing cymbal roll.

Fig. 7--Moroccan drum beats and modified habanera rhythm.

Trio music.--Each member of the trio is actively involved in shaping his given material throughout the work. This is accomplished in a variety of ways, the most notable being the use of pyramid groupings, the first of which appears at 2'51" in the score and is shown in figure 8.

Fig. 8--First pyramid grouping.
Each sub-class of each pyramid grouping offers the assigned player a choice of three motives (in traditional or proportional notation) to be played a given number of times, followed by a choice between the other two and so on, stringing them together until the next indication. Figure 8 shows a pyramid grouping where the vibraphone is to begin at 3':15" and the flute at 3':27". One feature of this structure is that the center player shares a motive with each of the others. This serves to prepare for some unexpected timbral exchanges. Of the seven total motives, two are assigned to the vibes only, two to the flute only, one to the vibes and guitar, one to flute and guitar, and one to guitar only. Since each player is continuously and unpredictably changing from one repetition

![Fig. 9--Pyramid grouping with dissimilar harmonic/motivic content.](image-url)
to another, there can be an infinite number of interpretations of the trio music. This is in direct contrast to the rigid format of the tape/sequencer background.

The harmonic/motivic content of figure 8 is similar in all parts, but, as shown in figure 9, it can be quite dissimilar. In this case each motive represents a particular combination of harmonic/motivic content (symbolized by the letters a-d, and described in the following section).

Harmonic/motivic content.—There are four basic harmonic areas. (See figure 9).

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\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig10}
\caption{Fig. 10—Four basic harmonic areas.}
\end{figure}
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Letter (a) is palindromic, constructed of two whole-tone chords divided in the center by a semi-tone. Letters (b), (c) and (d) are linked by an inverted pedal with a change of diads in the lower voices. These voicings serve only as a tonal reference and undergo many transformations, mostly in terms of register and accent. See, for example, the distribution of the (b) chord in figure 1.

Material for the trio was determined in a slightly
different way for each of the harmonic areas. Time frame 0'-00"-2':15" of the score represents an unfolding, linear stringing-out of chord (a) in figure 10. Portions of this section are quoted verbatim later in the work, and a few segments are used as motives for some pyramid groupings. Motives of (b) and (c) have an Arabic flavor, with the flutist improvising at one point on a given scale. (See figure 11). Motives of (d) are reminiscent of some popular, old Spanish songs.

![Diagram](image)

*Fig. 11--Excerpt showing flute's scale.*

**Formal structure.**--Formally, this work is of the mosaic type, put together by juxtaposing contrasting modules of music as in a rondo, for example. The form here is ABCDEFGHIDHE, where A-D (paralleling a-d of the previous discussion) are subsequently re-combined according to the following formulas: 
E=A+C, F=B+D, G=A+B+D, H=A+C+D, and I=A+B+C+D. The schematic of figure 12 indicates the durations of the different sections. Also given is a contour line showing the relative densities.
and dynamic curve (expressed by the vertical axis). Broken lines indicate the curves of the three *musique concrète* tracks. Pulse changes are also indicated.
A POSTCARD FROM CAIRO

For flute/soprano saxophone, vibraphone/conga,
and electric guitar, with stereo tape

Duration 14:35

B. T. D. Collins 1981

Postcard

Paul R. Luis
3001 B Augusta
DENTON, TEXAS 76201

U.S.A.

Message:
Polumo,
Greetings from Egypt. We have talked with Becca
and Alain and know
that all is well, including
Paul.
John is OK.
I wish you were here with
us tonight.

G E T o n o v e r t o o k A o u t i s t i c i n t e r e s t

No. 132 Giza - Khufu, Khafre and Mykerinos Pyramids
Les Pyramides de Gizeh, Chefren et Mykerinos
Khufu, Khafre and Mykerinos Pyramids

Duration 14:35
Performance Notes

The performers are to face the audience in a semi-circle in any comfortable left to right order with stereo speakers placed behind and on either side. An analog clock, tilted upward and in plain view of the players, is to be placed directly in front. The sequencers should be programmed according to the score, and with any mutually acceptable timbres. A sub-mix of sequencer B is desirable, but not necessary. The accompanying tape is pre-mixed in stereo and occupies two channels of the live mix. Seq. A occupies another, and seq. B still another. (Unless a sub-mix is made, in which case two channels should be used with a "spread" pan to isolate each sound). The guitarist and flutist should decide beforehand who will start seq. A and the tape deck. (The tape deck should have soft-touch controls and be set on pause before starting). Seq. B is started by the vibist utilizing a footswitch placed unobstructively below. All levels should be precisely adjusted in rehearsal with any marginal error on the side of less, rather than more volume.

Dynamics and articulations are to be freely interpreted by the players in response to the electronic background. All pulses emanating from this background are eighth-note pulses and should be used to determine tempos for the repeating motives. Occasionally, different pulses will overlap, in which case each player is free to choose the faster or the slower one. Accidentals used in conjunction with proportional notation apply to the following note only. Those used within a metrical context apply throughout the bar.

Three fermatas are used, and indicate relative pauses: • • • (short, medium, long).

Sequencer dynamics are indicated by numerical values, with 5 - 10 roughly equivalent to $\text{f}$. One player is assigned to each pyramid and should begin playing at the indicated time, choosing one of the three motives and playing 1-8 repetitions before choosing another, and so on, until the next indication. At several points a player is instructed to repeat some previous material. Cues for terminating these passages are provided for in brackets next to the earlier time indications (e.g. 2:01 8:05), at which point the player involved returns to the unbracketed real-time cue in the score. All cues are governed by the analog clock.