Francisco Castillo Trigueros

HORIZON PLUS

for Japanese Shô and Live Electronics

Program Note:

Horizon Plus is inspired by solo Shô music from the Gagaku tradition from Japan.

The piece consists of series of long, sustained phrases of different lengths that are fed into live processes in the electronics. These processes act as a hologram around the Shô's sound, sometimes enhancing its timbral characteristics, other times extending its pitch range, sometimes creating a distorted image by slightly affecting the instrument's pitch, and other times creating fluttering pulses that enliven the musical texture.

Following the tradition of Gagaku notation, there are no indications of rhythm or dynamics in the score of Horizon Plus. The player is given the indication to play in long, periodic breaths, creating extended phrases out of each system.

Without rhythm or dynamics the piece is organized by the compartmentalization of musical material into a series of systems. Each system has a different number of measures. Systems with multiple measures follow a pattern of growth through which each subsequent measure has more events than the previous one, thus creating an exponentially asymmetrical set of phrase lengths. Systems with only one event are to be given special emphasis that the player can achieve through dynamics or length. This follows a common element in Gagaku music: the use of extremely long single tones that act as structural markers.

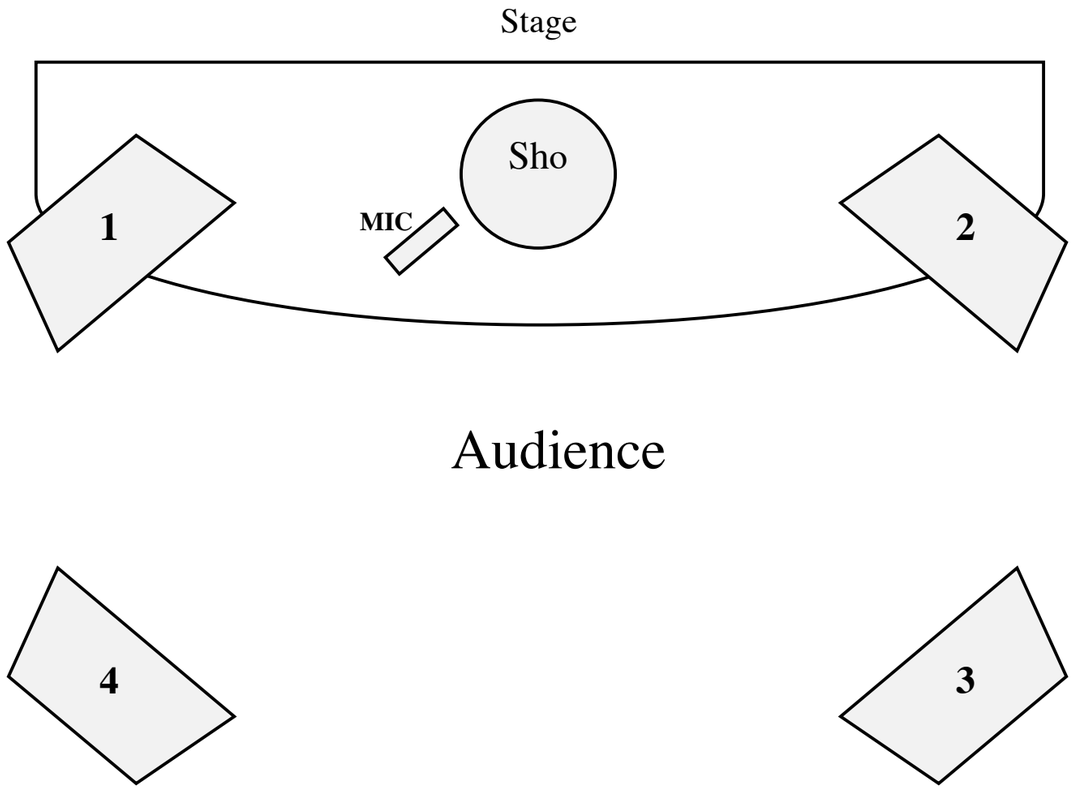
Another common structural element in Gagaku music is the appearance of new material towards the very end of the piece. In Horizon Plus this is emulated through the introduction of a straightforward melody (emphasized by the pitch shifting at octaves) in the very last system of the piece.

The piece was composed in collaboration with Naomi Sato who premiered it with the Experimentalstudio des SWR at the Atlas Festival in 2012.

Duration:

Approximately between 5" and 7"

Setup:



Technical Specifications:

1 mono condenser mic
Max/MSP 5 or 6
MIDI or OSC controller
4 speakers

The patch in Max/MSP consists of only live processing. It includes the following elements organized in different modules:

-A highpass filter to avoid feedback.
-8 pitch shifters that harmonize the shô's incoming signal,
-Multiple delays with feedback that sustain the shô as well as subtly transform its timbre.
-Three biquad filters that create pulsations,
-An internal mixer (controlled by either a MIDI or OSC controller) to allow the balance of the different processes to be adjusted according to the player, room, and equipment.
-Four modes of spatialization (Static Stereo, in which the signal only comes through the front two speakers without any movement; Static Quad, in which the signal comes out through all four speakers without any movement; Dynamic Quad, in which the signal moves around in multiple random patterns the four speakers; and Rotating Quad, in which the signal moves in multiple circular patterns.)

The processes are organized sequentially and are set off by a counter in the patch. This counter is controlled either with a pedal by the performer or with the computer keyboard by the audio technician at the computer.

for Naomi Sato

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As in Gagaku music; Long, sustained periodic breaths for each measure, each system an extended musical phrase, with extra structural emphasis on systems with only one note

A

Shô

Sustained Feedback (Slight timbral shift)

1 Static Stereo

2 Dynamic Quad

3

B

5

Shô

C

6

Shô

Pulses (randomly speeding up and slowing down)

4 Static Stereo

D

8

Shô

Pitch Shifter (Cluster)

5

E

9

Shô

Pitch Shifter (Cluster)

Pulses (randomly speeding up and slowing down)

6 Dynamic Quad

7 Rotating Quad

8 Static Stereo

F

14

Shô

Pitch Shifter (Cluster)

9

10 Rotating Quad

G

15

Shô

Pitch Shifter (8ves)

Sustained Feedback (Slight timbral shift)

Off

13

11 Static Quad

12 Rotating Quad