

Water Rhythm

*Saenghwang. 생황, Shakuhachi 尺八, Guqin 古琴,
Korean Percussion (janggu 장구, jing 징), Found Objects and Electronics*

Jeff Roberts

Instrumentation

Saenghwang 생황 *Korean*



Shakuhachi 尺八 *Japanese*



Guqin 古琴 *Chinese*



Percussion
- **Janggu** 장구 *Korean*



- **Jing** 징 *Korean*



- **Two 5"-10" gongs** of different sizes.

Found Object Percussion (3 amateur performers playing wood chimes & wine glass chimes)

Technical Requirements

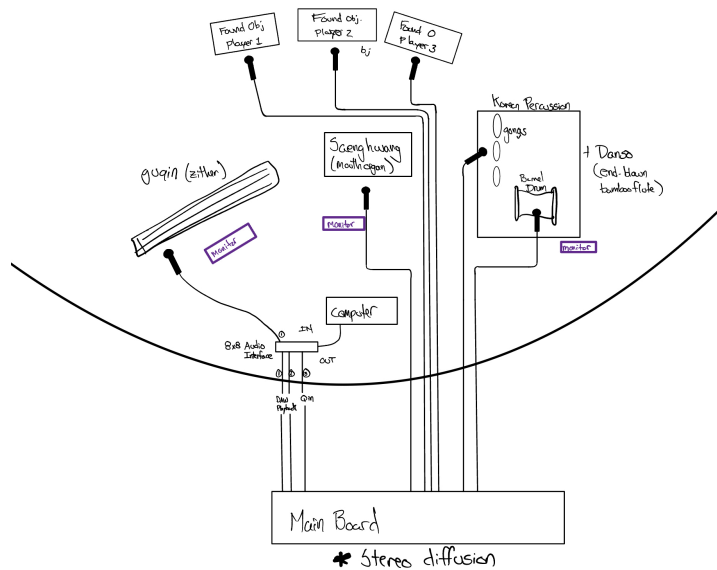
Hardware Requirements

Stereo sound diffusion system
Two channel sound interface (2in, 2out)
Laptop computer
iPad (optional)

Software Requirements

Max-MSP Runtime software
iPad TouchOSC software (optional)
roberts_water_rhythm.zip (Max-MSP, TouchOSC & wav files)

Stage Setup



Performance Notes

Time Notation

This composition uses a Max-msp patch which contains a minute and seconds timer. A laptop will be placed in front of the performers showing the minute and seconds timer. The tempo of all traditionally notated music in this piece is quarter note=60. Performers should treat the timer as a conductor's beat, getting the quarter note=60 pulse from the timer and playing in tempo with the timer.

Ensemble vs. Independent Performance

0'05"

Ensemble Performance: Time marks with a box around them designate a synchronized event between at least two of the performers in the ensemble. One performer will provide a cue and all involved performers will play exactly together for this beat and

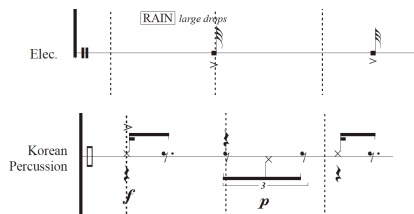
0'05"

Independent Performance: any music with time marks without a box is played independently (i.e. not synchronized with other players). Notated, in tempo music should be played at quarter note = 60 in exact coordination with the pulse of the timer but not exactly coordinated with other members of the ensemble.

Rain Field Recording and Ensemble Interaction

The foundation of this piece is a field recording of rain. The aesthetic goal of the piece is to interweave instrumental sound with the the rain field recording. To achieve this, performers should be aware of two specific connections between instruments and field recordings:

1.) Accented Rain Drops and Janggu

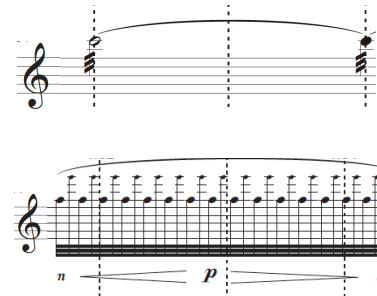


Large rain drop rhythmic patterns extracted from the field recording and accented Janggu rhythms closely link instruments and field recordings. The percussionist should listen for these raindrop rhythms and acoustically and dynamically connect with them. All ensemble members should be aware of this connection, as it initiates the transition to the full rain field recording and related sound textures.

2.) Field Recording and Ensemble Sound Textures

By 1:08, the original rain field recording is fully in the foreground of the piece. From this point, the ensemble should be aware of this field recording, and balance with it, especially when playing material meant to be a sound texture extension of the field recording. The found object performers (glass and wood chimes) are the foundation of this sound texture extension. When other other instrumentalists are contributing to a sound texture, it is important integrate and blend with both the field recording and the found object ensemble.

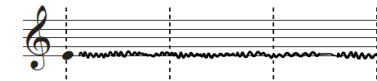
Saenghwang



Breath Tremolo. Use rapid alternating intakes and out takes of breath to create fast tremolo effect. As fast as possible & unmeasured.

Finger Tremolo. After fingering the main pitch, quickly flutter a finger over an uncovered sound hole, rapidly opening and closing the hole. Choose a sound hole that creates a quiet residual pitch a minor 7th above the main pitch. Unmeasured.

Shakuhachi



Double sound hole finger tremolo.

After fingering the pitch E, use a free finger on the right hand to very rapidly rub over two open sound holes, creating a tremolo effect that also contains a slight wavering of pitch.

Guqin

减字谱 Jianzipu Notation & Note Locations

For specific fingerings of guqin pitches, refer to the guqin part for traditional 减字谱 jianzipu notation.

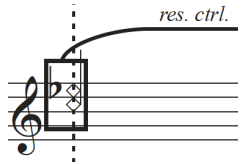


Muted Note. Using the left hand, press with light pressure on the fingered pitch so that the note does not ring but still has a definite pitch.

Instrument body percussion. Square note heads designate using fingers on the instrument body to create a percussive effect. **Tap** designates a light tap with the flesh of a left or right hand finger. **Flick** designates a powerful flicking motion with the fingernail of the middle finger (中手指) on the side of the instrument body.

Performance Notes

Guqin



MUTED QIN

LIVE variable delay (ad lib.)

res. ctrl. Resonance control. This refers to sampled resonance controlled by an accelerometer attached to the left hand connected to the maxmsp patch, which extends the resonance of an acoustic guqin sound through the triggering of a collage of sampled sounds, emulating acoustic resonance.

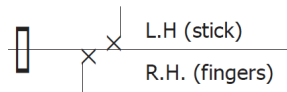
Guqin live electronics. Sections of the guqin part designated as 'LIVE variable delay', involve muted string raking improvisation that is live processed through a variable delay module in maxmsp.

Found Object Percussion

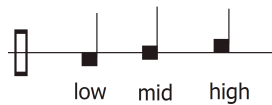
Found object percussion in this piece is designed to be able to be performed by either amateur (musically untrained) professional percussionists. Three players are needed. If there are no resources (materials and/or performers) to perform the found object percussion parts, the maxmsp patch has playback for the found object percussion parts that can be turned on.

Found Object Percussion Station Setup. Each player should have a wood chimes and glass chimes setup. Players will need two beaters (one for each hand). For **wood chimes**, a medium size collection of wood should be laid on the table, loosely stacked and overlapping. Wood pieces should be relatively long (6" - 2'0" long) and laid loosely over one another, with spaces where two beaters can be dangled and rattled around to create the effect of wood chimes. For **glass chimes**, each percussion station should have 6-10 wine glasses positioned closely together so that beaters can be dangled in between them and rattled around to create the effect of glass chimes. Long chop sticks or narrow bamboo strips can be used as beaters.

Korean Percussion



Janggu (barrel drum). Notation above the line refers to a bamboo stick in the right hand to strike the right side skin of the barrel drum. Notation below the line refers to the left hand fingers to strike the left side skin of the barrel drum.



Gongs. Three gongs are used (high-mid-low). High and mid gongs can be small gongs between 5" to 8" gongs of different pitch (non-nipple gongs preferred). The low gong should be the Korean *jing* gong.

Program Note

In East Asian traditions (i.e. Chinese, Korean, Japanese), musical instrument mimicry of water is common. The Chinese *guqin* (7-stringed zither) uses a string-raking technique that imitates the sound of flowing water. The rhythmic patterns of the Korean barrel drum *janggu* are associated with water as well. Through my practice of Western soundscape composition, I developed a subtler sonic awareness of connections between instrumental sounds imitating water and actual water sounds in nature. For example, in listening to sounds of a rainy landscape, I noticed how the rhythms of louder rain drops standing out from the overall complex texture of rain created scattered, accented rhythms similar to the rhythms of Korean *janggu* in slower-tempo music. In the piece 'Water Rhythm' I attempt to synthesize these two worlds, merging the scattered, accented rhythms of Korean *janggu* and the flowing sounds of *guqin* with field recordings of rainy landscapes. Found objects (both pre-recorded and live) create a meeting point between the instruments and field recordings and help to produce an integrated sound world of flowing and spontaneous rhythm, melodic gesture and texture.

水节奏 Water Rhythm

written for PAN Project Ensemble

Jeff Roberts

(2022)

[illegible]

0:15 Ensemble 0:16 0:18 0:20 0:22 0:24 0:26

S.h. *fp* *p* *mf* *p* *n* *mf* *pp*

Qin *ff* *p* *mf* *pp* *mf* *p* *mf* *p* *mf* *f* *mf*

K. Perc. GONG (low) *Lv.* 3 *mf*

F.O. Perc. WOOD CHIMES very active *mf* WOOD CHIMES very active *mf*

res. ctrl. tap 5 5 5 flick tap

0:28 0:30 0:32 0:34 0:36 0:38

S.h. *n* *f* *n* *mf* *res. ext.*

Qin *f* h.o. *mf* *p* *mf* *p*

K. Perc. *mf* 3

Elec. wine glass resonance *p* *f* *p* RAIN large drops *f*

F.O. Perc. GLASS CHIMES very active *mf* GLASS CHIMES very active *mf*

0:40 0:42 0:44 0:46 0:48

S.h. *pp* *n* *mf*

Qin *res. ext.* **MUTED:QIN** LIVE variable delay (ad lib.)

K. Perc. **GONG** (high) (low) *L.v.* **JANGGU** (mid) *L.v.*

Elec. **RAIN** large drops

0:50 0:52 0:54 Ensemble 0:56 0:58 1:00

S.h. *n* *p*

Qin move;into upper register; (sporadic harmonics)

K. Perc. *pp* *ff* *mf*

Elec. **RAIN SOUNDSCAPE** (field recording playback) **TUBE** *f* *mf*

1:02 1:04 *Ensemble* 1:06 1:08 1:10 1:12

S.h. 17 *mp* *fp* *n*

Qin 17 *muted* *f* *mf* *ttp*

K. Perc. 5 *ff* *mf* 3

Elec. (rain soundscape) TUBE *f* TUBE *f* *mf* electronic resonance

1:14 1:16 1:18 1:20 1:22 1:24

S.h. 20

Shak. 20 *mf*

Qin 20 *side flick* *f*

Elec. (rain soundscape) TUBE *mf* RAIN large drops

1:26 1:28 1:30 1:32 1:34 1:36

S.h. 23

Shak. 23

Qin 23

Elec.

(rain soundscape)

tap

p *mf* *pp*

n *p* *n*

p

mf *p* *pp* *mf*

1:38 1:40 1:42 1:44 1:46 1:48

S.h. 26

Shak. 26

Qin 26

Elec.

F.O. Perc.

mp

f *p* *mf* *p*

mf *pp* *f* *mp*

mf *ff* *mf*

mf *f*

mf *low rumble* *p* *mf* *low rumble* *p*

TUBE

ff

① [GLASS CHIMES] very active

p *mf*

1:50 1:52 1:54 1:56 1:58

S.h. *pp* *p* *pp* *n* *p* *n* *p* *n* *f* *n*

Shak. *f* *f*

Qin (rain soundscape) *f* *p*

Elec. RAIN (found object reconstruction) low rumble *f* *p*

F.O. Perc. ① (glass chimes) GLASS CHIMES very active *f* ② ③ WOOD CHIMES very active *f* ① WOOD CHIMES very active *mf*

2:00 2:02 2:04 2:04 2:06 2:08

S.h. *pp* *mf* *pp* *pp* *f* *pp* *mf* *mp* *mf*

Shak. *mf* *f*

Qin *mf* *f*

Elec. (RAIN found object reconstruction) bending collage

F.O. Perc. ① (wood chimes)

2:12 2:14 2:16 Ensemble 2:18 2:20 7

S.h. *mp mp pp mf < ff > p pp*

Shak. *mf p < mf > p f p f pp p*

Qin *p mf p f p ff*

K. Perc. **GONG** *ff* *l.v.*

Elec. **RAIN** (found object reconstruction) low rumble *f p*

F.O. Perc. ① GLASS CHIMES ② GLASS CHIMES ③ GLASS CHIMES *ff*

2:22 2:24 2:26 2:28 2:30 2:32

S.h. *mf p mf n*

Shak. *mf*

Qin *pp f pp f pp f pp*

K. Perc. *f* *l.v.* *mf* *f* *p* *mf*

Elec. guqin harmonics resonance wine glass resonance wine glass resonance

F.O. Perc. ① (glass chimes) ② (glass chimes) ③ (glass chimes)

TREMOLO IMPROVISATION
(blend with glass chimes) *mf*

2:34 2:36 2:38 2:40 2:42 2:44

S.h. (tremolo improvisation)

Shak. subtle background within texture (blend completely)

Qin

K. Perc. *f* *mf* *mp*

Elec. wine glass resonance

F.O. Perc. ① (glass chimes) ② (glass chimes) ③ (glass chimes) WOOD CHIMES *ff* WOOD CHIMES *ff* WOOD CHIMES *ff*

2:46 2:48 2:50 2:52 2:54 2:56 2:58

S.h.

Shak.

Qin MUTED QIN IMPROVISATION LIVE processing (variable delay); string raking (highest register)

K. Perc. *mp* *p* *mf* *pp*

Elec. wine glass resonance *p* *f* *p*

F.O. Perc. ① (wood chimes) ② (wood chimes) ③ (wood chimes) GONG RHYTHMIC PATTERN IMPROVISATION *see perc. performance notes

47 3:04 3:02 3:04 3:06 3:08 3:10 9

S.h. (tremolo improvisation)

Shak.

Qin (string raking/LIVE variable delay)

K. Perc. (gong rhy. pattern improvisation)

Elec.

F.O. Perc. ① (wood chimes)
② (wood chimes)
③ (wood chimes)

50 3:12 3:14 3:16 3:18 3:20 3:22

S.h.

Shak.

Qin (string raking/LIVE variable delay)

K. Perc. (gong rhy. pattern improvisation)

Elec. [RAIN] large drops
Fragmented gong patterns (Maxmisp-Chucker)

f *mf* *f* *mf* *f* *mf*

This musical score is arranged in two systems. The first system (measures 47-50) includes staves for S.h., Shak., Qin, K. Perc., Elec., and F.O. Perc. The second system (measures 50-53) includes staves for S.h., Shak., Qin, K. Perc., and Elec. The score features various musical notations such as tremolos, wood chimes, and gong patterns, along with dynamic markings like *f*, *mf*, and *pp*. Time markers in minutes and seconds (e.g., 3:04, 3:02, 3:04, 3:06, 3:08, 3:10, 3:12, 3:14, 3:16, 3:18, 3:20, 3:22) are placed above the staves. A page number '9' is located at the top right. The Elec. staff in the second system contains a box labeled 'RAIN' and the text 'large drops'.

3:24 3:26 3:28 3:30 3:32 3:34

S.h. 53 *pp*

Shak. 53 *p* *mf* Flt.

Qin 53

K. Perc. JANGGU 3 *mf* 3 *jete* 3 *jete*

Elec. 3:36 3:38 3:40 3:42 3:44 3:46

S.h. 56 *mf* *pp* *mf*

Shak. 56 3 *flick*

Qin 56 *ff* *f* *mf* *f* *mf* *f*

K. Perc. *p* *f* *p* *f* *f* *p*

Elec. Fragmented gong patterns (Maxmsp-Chucker) RAIN SOUNDSCAPE (field recording playback) *n* 5

The musical score for "The Sound of Rain" is presented in two systems. The first system covers the time range from 3:48 to 3:58, and the second system covers 4:00 to 4:08. The score includes five staves: S.h. (Shanhu), Shak. (Shakuhachi), Qin (Qin), K. Perc. (Korean Percussion), and Elec. (Electronic). The S.h. staff features a melodic line with a long, sustained note at the beginning of the first system, marked *pp*. The Shak. staff has a melodic line with dynamic markings *f*, *p*, *mf*, and *pp*. The Qin staff has a melodic line with dynamic markings *f*, *mf*, and *p*. The K. Perc. staff includes a variety of percussion sounds, including a "jete" (a type of Korean drum) and "rag. gong patterns" (ragged gong patterns). The Elec. staff features a melodic line with dynamic markings *f* and *p*. The score is marked with time stamps at 3:48, 3:50, 3:52, 3:54, 3:56, 3:58, 4:00, 4:02, 4:04, 4:06, and 4:08. The first system ends at 3:58, and the second system begins at 4:00. The score is marked with a "1" at the end of the first system, indicating the end of the first measure.

12

4:10 4:12 4:14 4:16 4:18

S.h.

Shak.

Qin

K. Perc.

Elec.

(rain soundscape)

p *mp* *mf*

L.v.

4:20 4:22 4:24 4:26 4:28 4:30 4:32

S.h.

Shak.

Qin

K. Perc.

Elec.

ff muted snap pizzicato

ff (rain soundscape)

n