## PERPETUAL DELIBERATION

A thesis submitted to the faculty of the Graduate School of Western Carolina University in partial fulfillment of the Requirements for the degree of Master of Fine Arts

Ву

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**ABSTRACT** 

PERPETUAL DELIBERATION

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holding onto a sense of balance within everyday life.

Perpetual Deliberation consists of three resonating chambers aligned along a linear axis. Two of the three forms (the clay bell and the suikinkutsu) are ceramic, while the second bell is metal. The idea for the work began around giving form to the push and pull between the traditional modes of making that have influenced me, and modern methods of fabrication that blur the boundaries between authorship and collective production. The installation's linear design emphasizes the polarity between these modes and the need to find balance between these extremes. Its axial orientation draws the participant from the impersonality of the steel bell's industrial fabrication, to the continuous sounds of the water harp, to the warmth of the ceramic bell with its wooden support (Figure 1). The continuous sound from the water harp always centers the viewer, even with the perpetual ringing of the bells at the extremities of the work. The work places the participant in an environment that promotes reflection on finding and

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#### INTRODUCTION

Perpetual Deliberation attempts to find balance between two modes of formmaking (handmade and fabricated) and two modes of perception (contemplative and distracted). To allow a conversation between these modes, they are given a voice (through the incorporation of sounding elements) and a physical presence, in the form of two sculpted bells (one ceramic and the other steel). The two bells are installed at opposite ends of an extended pile of crushed red brick, with a suikinkutsu (Japanese water harp) installed midway between them, to represent a central point of focus. The water harp's clay body and its metallic glaze finish establishes a visual bridge between the aesthetic qualities of the two bells. The three forms signify the changing role of the modern maker and the need to integrate traditional craft and private spirituality with a modernist aesthetic based upon industrial manufacture and mass-cultural distraction. The intention was to create a dialogue in which the visitor to the installation is invited to participate as he or she passes back and forth from one end of the gallery to the other. The work aims to create a balance between these polarized modes of making and perceiving, akin to the mental and spiritual equilibrium for which the artist strives in the process of creating work. The artist must consider the cultural roots of tradition and the historical influence of the past, as well as the changed conditions of art-making in the contemporary world, to find a space in which to live and work.

Traditionally, the *suikinkutsu* is buried in the ground. The water harp created for *Perpetual Deliberation* has been brought "out of the ground" and accorded a central place. This installation method brings attention to the water harp's role in the centering of the visitor's experience, competing with yet also modulating the sounds of the bells.

The harp's reverberations never cease. The continuous dripping of the water that creates the harp's harmonious sound brings the participant back to the work's spatial and temporal center after the conclusion of each bell's tolling. It furnishes the fixed point to which the participant continually returns.

By contrast, the sounding of the bells at set intervals provide interruptions that momentarily drown out the unceasing notes of the harp. The intrusion of these sounds evokes the interruptions that constantly pull us off-center in our daily lives, including the constant distractions of consumer culture and the mass media.

#### CONSTRUCTION

The steel bell was constructed by cutting a 4x8 foot 3/8 inch sheet of steel and welding it together to create the resonation chamber. Its base design is that of a Korean Buddhist temple bell, a cylindrical form whose height exceeds its width. Its hexagonal construction and hard lines informs the viewer of the fabrication process.

Instead of using traditional metal-casting techniques, the steel bell was fabricated from 3/8<sup>th</sup> inch steel plate, cut in pieces and welded together to create a hexagonal bell. The hexagonal shape was chosen in an effort to break the rounded contours of the more traditional cast form. The finish of the metal is a matte, non-reflective black to mute its visual interaction with space. Similar construction techniques were used for the bell's tripod support. The sound created by the bell is close to the sound produced by the tolling of a traditional bell in that it creates low, long tone reverberation. As mentioned before, the tuning of this style of bell is controlled by the size of the gap between the bell and the ground. For this bell the desired effect was created by a height of 10 ¾ inches, which delivers 57 decibels.

The stand is designed to complement the harder angles and lines present in the bell's form (Figure 2). It is made from square steel pipe for the legs and 3/8<sup>th</sup> inch steel plate for the triangle from which the bell hangs. The surface was then smoothed by sanding off the scale and slag, and painted a matte black to deaden its visual presence.

The water harp is an echo chamber that has been created in two separate sections: the vessel form and the plate that amplifies the sound (Figure 3). The vessel form was thrown on the potter's wheel in seven segments in an effort to maximize the shape's width and breadth of surface. The amplifying plate was thrown in one piece and

fired separately. The surfaces of both the vessel and the amplifying plate are smooth and silken in texture to represent the velvet surface of contentment, as opposed to the cold nature of the metallic, manufactured world. Its surface has been glazed to be a pot metal black to bring together the modes of the wheel-thrown ceramic form-making with the surfaces of industrially fabricated steel, and serves as the meeting point of the two extremes present in the room.

The ceramic bell made for the installation was created on the potter's wheel, sectioned together to create the size desired and the visual impact needed for the work (Figure 4). Textural surfaces were added after the initial shaping on the wheel to create a varied surface consistency that appeals to the sense of touch. The overall shape of the bell is based on Japanese Buddhist bells, which tend to be cup-shaped in contrast to cylindrical shape of the Korean Buddhist style bell. The ceramic bell was fired first to cone 08 (1728°F) to bring about the durability needed to finish the surface, and a second time with a fake ash glaze at cone 6 (2232°F). I used a fake ash glaze to bring about the appearance of the wood fired surface. During the throwing of the bell I added a textured surface to break the smoothness of the surface and to complement the texture of the fake ash glaze. All of these maker's marks add to the warmer visual quality of the bell. The ceramic bell is tuned by the size of the cylinder and the thickness of the material. Differing sizes and shapes of ceramic bell were tested to determine the best compromise for size and survivability in the firing process, and to create an acceptable tone of 51 decibels that resonates within the ceramic bell. The ceramic bell is suspended from a bent laminate cherry-wood stand.

I used the red crushed brick to unify the three objects. It was important that the pieces be perceived as part of a whole and not individually. Alone, these pieces deal with a part of a problem, not the whole. When brought together, they make a commentary on the extremes of each method while finding balance. The roughness of the rock connecting the pieces speaks to the rough undefined paths that we must travel as we move from our past and learn to deal with the present.

#### **INSPIRATION**

The individual elements of *Perpetual Deliberation*, the bells and water harp, are derived from an exploration of forms that use echo chambers to give voice to a space or action. The central object, the water harp, provides the work with its focal point, producing continuous resonating tones from the water droplets breaking the surface of the water in the water harp. The two bells at the ends of the piece pull the participant's attention away from the center, with their intermittent tones signifying the appeal of tradition and the hand-made, and the accessibility of mass fabrication and modern industrial production. Each has their place, but favoring one over the other leaves us an object that is either unobtainable, or so overproduced that it loses its unique voice. Perpetual Deliberation is designed to create interplay of sounds, using an Arduino and relay to control the two solenoids which activate the bells, and a water pump to make the water harp function. These tools are a reflection of mechanization and the penetration of the computer and machine into the most private and meditative spaces of everyday life, as well as the growth of open source programming, with its empowerment of the individual user of technology. They have been used to automate the bells and water harp so that they function independently, requiring no physical interaction from the participant. This enables the visitor to concentrate on the experiential and perceptual aspects of the piece.

Perpetual Deliberation was partially inspired by the work of Mineko Grimmer and David Greenbaum. Grimmer's work uses sound to lure the participant in, and then captures their attention with the unconventional means used in the sound's production. In Seeking the Philosophers Stone (Figures 5 and 6), she uses pebbles stacked in

pyramids and encased in ice as a medium of sound: as the ice melts, the pebbles shift and the water drips, creating a water harp out of the chance interactions of natural materials. The flow increases as the melting progresses and more and more pebbles are released, starting out as slow and ending finally when the structure no longer supports the rest of the pebbles and they all fall (MacNaughton 55). Grimmer's use of soundscapes influenced my exploration of the water harp's intermittent production of noise and silence, which varies depending on the flow of water. Meanwhile Greenbaum's use of bell forms, specifically those of Korean and Japanese temple bells, influenced my choice of forms for the bells (Figure 7). However, unlike the bells in Perpetual Deliberation, which fulfill a symbolic as well as an aesthetic function, Greenbaum's "Shohola" bells are primarily designed as ornamentation. He uses shape and sound as tools in modifying and activating a landscape to create a more meditative or peaceful space (Greenbaum). The tolling of his bells furnishes an aesthetical addition to an existing environment, rather than creating an environment out of purely auditory and visual elements, as I have attempted to do.

#### THE PARTICIPATORY ROLE OF THE VIEWER

Perpetual Deliberation strives to create an environment that does not dominate or overpower the visitor, in contrast to the immersive soundscapes of Le Monte Young and the Theater of Eternal Music, and that maintains a centralized focus, in contrast to the de-centered and chance-based compositions of John Cage. Both of these artists were interested in engaging the participatory experience of the viewer through sound-based works. This is evident in the work such as 2 Sounds by Young with its blaring, amplified tones, and in Cage's famous 4'33, where the ambient noises of the audience become a part of the piece, making the viewer as much a participant as the performer on stage.

Cage's 4'33" changed the position of the listener/viewer to that of a participant, "liberating" the listener from the dictatorship of composition. Meanwhile in Le Monte Young's 2 Sounds, paired sounds that are by no means pleasant to the ear, are amplified to the point that the experience becomes physical in nature. Branden Joseph contrasts the two composer's works as follows:

[While] Cage sought to place the participant into a nonhierarchical field with which he or she could interact as a disinterested equal, Young reinscribed the dialectic between subject (participant) and object (the environmental, nearly overwhelming sound). Indeed, via amplification, Young exacerbated the interaction to such an extent as to make the power relationship palpable (Joseph 69).

While both Cage and Young desired to move the use of sound away from the accepted mode of traditional composition, they did so in differing ways to challenge the

participant's method of interaction. Young did this by amplifying the sound to the point where the participant is physically forced to become a part of the piece, while Cage tried to dismantle the boundaries between listener, performer and composer.

In *Perpetual Deliberation*, the purpose is not to dominate the participant by the use of amplified sound, nor to engage them as a "distracted" listener-participant, but to lead them into the range of the work's auditory and visual landscape as the opposing elements of the piece carry on their internal conversation. The work finds balance in its deliberation between the distinct voices of the two elements, the hand-made ceramic bell and the fabricated steel bell.

Size was also an important consideration in the design of the three main elements of *Perpetual Deliberation*. The size of the bells was chosen to reference the size of a human. If the bells were larger, they would dominate the space and the viewer; too small, and their presence would not suffice to produce a dialogue and create a participatory experience. It was important that the bells promote the feeling of conversation and counterpoint between elements held in balance. This was a key concept, in that I was not trying to create merely an immersive, physical space, but a mental space of dialogue and reflection, as well.

#### RESONATING CHAMBERS AND THEIR HISTORY

The past and present uses of bells throughout the world are as varied as the cultures that created them. The earliest bells were produced in China, and the technology spread through trade with the development of the Silk Road trade routes. Traditionally, bells were created through various methods of casting, which varied by region and available materials. The shapes of early bells are correlated with their functional uses and with the aesthetic traditions of the cultures that produced them. Ancient Chinese bells tended to be tulip-shaped, and were often used as instruments in ceremonies involved in the calming of the heavens. The temple bells of Korea and Japan primarily reflect the influence of the Buddhist sects that shaped their ritual use. The Korean bells generally have longer cylindrical-shaped bells while Japanese-made bells tended to adopt a shorter, cup-shaped form. All were intended to be struck once, and then the toll of the bell was left to complete its full resonance before being struck again.

The tuning of bells varies based on use and origin. The clarion bells and chimes seen in the Christian churches of Europe were designed to be rung continuously by an internal striker, producing higher-frequency tones that creating a "pealing" sound (Petke 3-10). East Asian temple bells, specifically the Korean style, are tuned by the height of the gap between the bell's base and the ground, which can be accentuated with an optional cavity that can be placed under the bell once it is mounted (Figure 8). The focus of the tuning of this bell is to promote lower harmonic tones, as opposed to the high ones produced by the Western style bell (Jeong 1547). (This is not the case for all Eastern Asian bells, but primarily pertains to bells of the Korean style.)

The ceramic bell in *Perpetual Deliberation* speaks to older traditions of refining and using natural materials. Clay is not a common material for the creation of bells in modern times but it has been used in the past; Incan and Aztec bells, for example, were crafted from ceramic (Coleman 33).

The invention of the water harp, and its use in Japanese tea ceremonies, is not attested before the 1800s. The water harp was an addition to the design of the traditional *tsukubai*. A *tsukubai* is a rough cut stone basin filled with water to purify the hands and mouth. The water harp or water *koto* chamber works on the principle that the water spilling from the basin and from the washing of the hands and mouth will drain through the pebbles at the base of the basin and fall into the chamber. Once in the chamber, it falls to hit the water's surface in the pot, making the sound much like that of the *koto*, a Japanese stringed instrument that is sounded by plucking or hammering, like a dulcimer (Deane).

### CONCLUSION

Perpetual Deliberation was successful in giving a "voice" to various modes of making and experiencing art and craft, and in staging a dialogue between them. The water harp created the visual and auditory center for the piece. The dialogue between the three forms was realized as the viewer was drawn in by the subtle sounds of the water harp and then "pulled" in either direction by the tolling of the bells. In this way, the work encourages visitors to experience this contradictory push-and-pull by exploring the different elements of the piece, enabling them to find their own balance amidst the polarized terms of modern living and making.

# FIGURES



Figure 1. Perpetual Deliberation. Photo by April Copeland, 2015.



Figure 2. Detail of steel bell. Photo by April Copeland 2015.

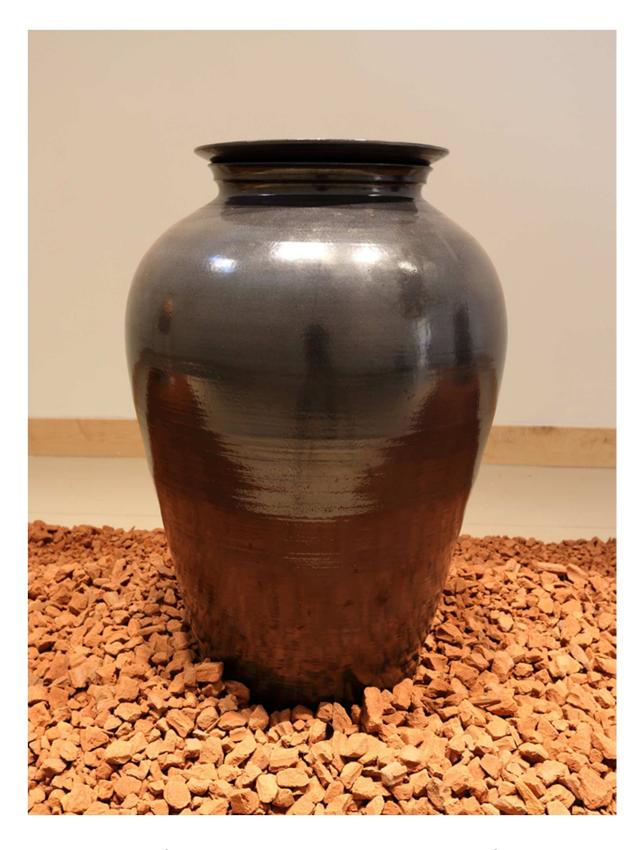


Figure 3. Detail of water harp and ground cover. Photo by April Copeland 2015.



Figure 4. Detail of ceramic bell and wood stand with copper tape.

Photo by April Copeland 2015

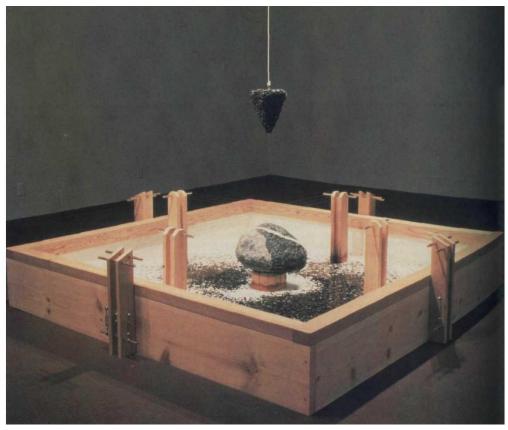


Figure 5. Seeking the Philosopher's Stone by Mineko Grimmer (MacNaughton 54)

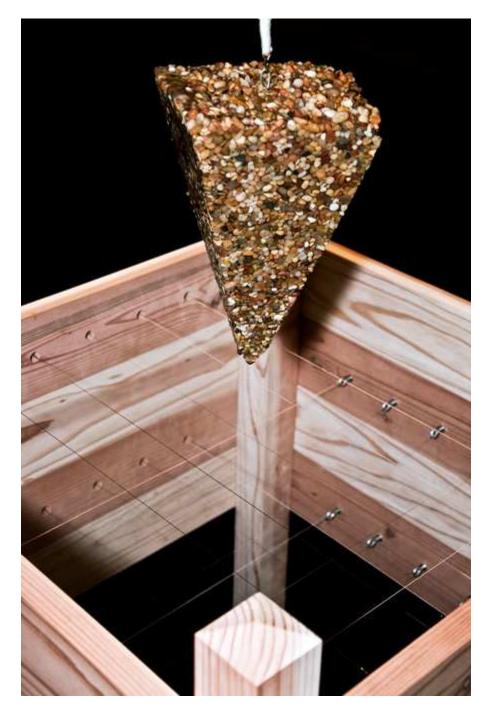


Figure 6. Detail of Mineko Grimmer's frozen pebble pyramid. (Mineko Grimmer)



Figure 7. Greenbaum's bells left bell August 2009, right bell August 2010. (Greenbaum)

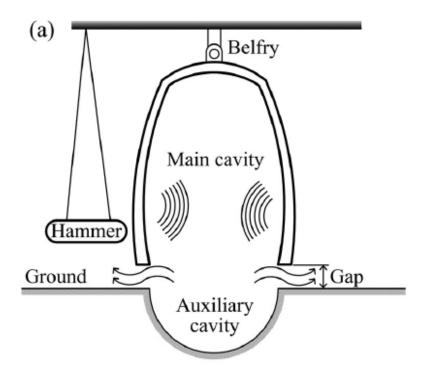


Figure 8. Diagram of the gap and auxiliary cavity for Korean temple bell. (Jeong 1548)

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