



DE 1045 0 13491 10452 2 "The idea to relate architecture and marvels of engineering to music extends as far back as the organum sung in the 12th-century cathedrals of France and the dedicatory motet for the 15th- century Florentine Duomo by Brunelleschi. No less an authority than Goethe called architecture "frozen music," and to a large extent, music has always held this reciprocal aesthetic relationship to permanent, man-made structures.

"The idea of using grandiosity of open space for art has also been a particular preoccupation of artists during the last century. With modern interest in Stonehenge and the establishment of parks like the Storm King Art Center, the interest in human construction placed in the natural environment has grown. The artwork of Christo most recently calls to mind the use of large, man-made objects and public spaces for monumental, if ephemeral, art that involves the surrounding environment. The monumental sculptures of Mount Rushmore and Stone Mountain Park that celebrate figures in American history stand as oblique but clear-cut analogues to Mr. Bertolozzi's ideas. The great Stalacpipe Organ of the Luray Caverns, often called the largest musical instrument in the world, with tuned stalactites and stalagmites, serves as an antecedent here in the use of natural space in the musical sphere. Though such traditions are recent, Mr. Bertolozzi's idea is completely original in both its use of the space and the chosen object as instrument. He also incorporates the arts and sciences of civil engineering, something that ties him to Modernism but extends to the Postmodern aesthetics of using vernacular - as opposed to a kind of earlier remote obscurity. This work, in fact, links itself to the painterly Hudson River School, for its exaltation of the great river and its relationship to man. Even though Mr. Bertolozzi is consciously aware of where his work fits in historically, he nevertheless has arrived at much of his concept intuitively, which is true to artistic genius.

"Composers working in the Western European tradition have always and often made use of new and different instruments in their work. Fanciful instruments in the West have at all times been made and used, including some mysterious and bizarre inventions like the tromba marina, the ophicleide used by Hector Berlioz (1830), and the harp guitar and lyra guitar. These last two have a limited though significant repertory. The use of the glass harp (water glasses) goes back to Glück and Mozart. Beethoven composed his *Wellington's Victory* for what amounts to a large music machine. More well known, perhaps, are the church bells and cannons used by Tchaikovsky in the outdoor performance of the very popular 1812 Overture. During the 20th century the Western musical tradition grew more percussive and began to draw on non-Western customs. Particularly the Americans Edgard Varèse with *Ionization* and Colin McPhee with the Balinese gamelan-influenced music in the 1930s brought the sound of the percussion ensemble to American audiences. More composers helped to revive older, pre-18th-century tunings. Harry Parch, also in the 1930s, began to invent instruments of various tunings that he called "contraptions," many of which were made from ordinary objects like light bulbs. John Cage, who included amplification in his works for prepared piano during the 1940s and Steve Reich in recent decades have furthered the cause of percussion and electronic technology through the contemporary period. The extension of these ideas can be seen today in such popular contemporary exhibitions as the Broadway show *Stomp*.

"Furthermore all instruments of the non-Western traditions, West African xylophones, Chinese and Southeast Asian lithophones, and Australian digeredoos, have long been known in the West and accepted as instruments. Human bones in some traditions are used. In short, there has never been a single object that a musical mind does not see as a potential for making musical sound. In the finest tradition of American Experimentalism, all these stand as antecedent to Mr. Bertolozzi's use of the Mid-Hudson Bridge.

"Mr. Bertolozzi's oeuvre includes works solely for percussion instruments (*The Bronze Collection*, 2003). He has, in the tradition of Aaron Copland, also composed many works related to civic and public occasions. These have been related to places in the lower Hudson Valley. A critic and historian views the *Bridge Music* project as yet another architecture-music analogy but at the same time a completely original, natural progression in the artistic career of an excellent musician and creative personality." *Andrew Tomasello, Associate Professor and Deputy Chair for Music, Baruch College and the Graduate Center (CUNY)*

Bridge Music was originally conceived as a series of live concerts to celebrate the 400th anniversary of Hendryk Hudson's voyage up the river that now bears his name. This recording, in addition to being produced as a work of art in its own right, was also intended to be a guide for the live concert performers and audio engineers. When the massive cost of producing such an event proved too formidable, the project evolved into a sound-art installation enabling listeners to go onto the Mid Hudson Bridge itself or to its surrounding parks to hear the music, experiencing the surrounding river and mountains as their theater.

The idea of using a bridge for music is not a new one. Bill Fontana's "Millennium Bridge," Jodi Rose's "Singing Bridges," music by Einstürzende Neubauten, and many others are examples that are alternately ambient, electronically processed, inclusive of traditional instruments, or various combinations of these elements. What makes *Bridge Music* unique is that it presents fixed musical compositions using no other tones than those of the bridge itself. It also remains playable by the requisite number of live musicians for which it was originally intended. Samples of the score, as well as more photos and materals can be viewed at www.delosmusic.com or at <a href="https://www.delo

The genesis of the project came after one of my solo percussion performances on *The Bronze Collection* at the 2004 US Tennis Open. With my wife standing next to a poster of the Eiffel Tower (where, incidentally, we had first kissed), she took a swing at it to make me laugh, as if she were playing one of my gongs. It was an epiphany: everything vibrates...why not play the Eiffel Tower like an instrument? I seriously considered pursuing that idea, but quickly realized that without strong cultural ties in Paris, and lacking the ability to speak French, it would come to naught. I studied domestic monuments for a suitable "instrument," and became interested in suspension bridges because the suspension cables (also known as suspension "ropes") would provide not only a harp-like visual, but because like a harp, the ropes could be harnessed as musical "strings" as well.

The Mid Hudson Bridge was ultimately chosen because most of the playing surfaces could be reached from the bridge's sidewalks, the bridge was of a human rather than gargantuan size (though it is still 3,000 ft long), and there are lush parks on either shore for the originally intended live audience. The audience, in addition to having an immediate view of the bridge, would have seen and heard the music from a stage with a large digital screen flanked by speaker columns, just like at a rock festival.

To plan for the concerts and to create this recording, I recorded hundreds of samples of the bridge's various surfaces, catalogued them by pitch and location, and then set about the task of creating a virtual instrument from which I could turn my vision into sound. The first work I composed was *Bridge Funk*, created as a demo or "proof of concept" to convince the New York State Bridge Authority that the idea was viable. My intention was to create something recognizable as a song to the casual listener, to make one hear *music* before saying "what is that unusual sound?" The Board of Directors listened to *Bridge Funk* and gave their approval. I then went on to explore the various facets of sound revealed by the bridge.

It is interesting to note that the bridge's designer, Ralph Modjeski, was a highly skilled pianist. In fact he was a classmate of the famous Polish piano virtuoso Paderewski. He ultimately chose engineering as his profession, and became one of the 20th century's greatest bridge designers. Both as a pioneering engineer and as a musician who loved the music of his own time, I think he would be intrigued to experience this boundary-shattering synthesis involving his beloved bridge and the music of our own time.

THE MUSIC

Finding myself with an extremely limited set of melodic notes, I turned not to the technique of theme and variations, but to rhythm and variations. Superimposed upon simple rondo forms (ABACADA, etc.) are subtly shifting rhythmic patterns, displaced downbeats and backbeats, and intricately composed (not improvised) rhythmic lace work connecting larger sections. Elements of foreground and background, contrast, color, counterpoint and momentum combine into an auditory fabric that is constantly being refreshed.

- [1] **Meltdown** The poet Goethe is attributed with saying "Architecture is frozen music." And so, with this great bridge standing before me, I set out to melt it back into music. Every available surface of the bridge is used in this piece, a calling card for the public as it were, that this is what a bridge can sound like. Varying phrase lengths for the main melodic material and constant shiftings of its position over the thundering pulse give *Meltdown* its vibrant energy.
- [2] Bridge Funk This work begins with the long, unpitched suspender ropes as well as rakes across the drainage grates and hand rail spindles. When the short suspender ropes enter (sounding like a bass guitar), the rest of the music is set in motion. The bell-like sounds in the middle are physically quite far from each other: a gate hinge, a guard rail and a 16' x 6" pipe supporting traffic lights over the roadway.
- [3] Dark Interlude This is the one movement that is not driven by a steady pulse. It is pure melody in a rhapsodic, free rhythm. I worked with only a very few notes to create this moving changeup to the propulsive force of the previous two tracks. It also excludes any glittery, sharp tones so that its expressiveness can come from the muted colors of the suspender ropes, abutment saddle and panels.

The Hudson Suite [tracks 4-6]

- [4] Toward the Horizon This first movement of *The Hudson Suite* was taken from "Voyage of the Ancients," my suite for the percussion project *The Bronze Collection*. It expresses the relentless persistence of an explorer with his eye on the horizon, in this case Hendryk Hudson. It ends, as do the other movements of *The Hudson Suite*, with the "rain stick" effect. This consists of 3/8" steel shot, plastic air gun pellets or copper BBs being dropped inside the towers to create a swirling sound effect.
- [5] The River That Flows Both Ways The native Americans used this name (Muhheakantuck in the original) for what we now call the Hudson River. Because the Hudson is really a tidal estuary as far north as Troy, NY, the water flows both upriver and downriver with the tides. Rhythmic phrases of 10 counts underpin a capricious melody of disparate phrase lengths.
- [6] Landfall Also arranged from "Voyage of the Ancients," Landfall wraps up the mini-suite with far more rhythmic variation than its Bronze Collection original. The bridge is short on sustained tones, so I used fresh and varied rhythmic combinations to fill the spaces between the melodic phrases; in the original, the spaces were connected by the splashing sounds of long-ringing cymbals.
- [7] Bright Interlude Where Dark Interlude moodily explores the lower registers, Bright Interlude is all about the higher notes. Perkily bouncing along, it is a set of adornments around a central repeated note, a different treatment for each

available pitch on the abutment saddle. There are very soft, almost inaudible punctuations from the bridge towers. This movement was inspired by the gamelan music of Indonesia.

- [8] Steel Works The light atmosphere of the previous track gives way to a deep, aggressive attack in the bass for Steel Works. This movement is in the same mold as Landfall in that it morphs the opening groove into a totally different, syncopated part by music's end.
- [9] Rivet Gun Wild and Dionysian, this movement is pure percussion. I had the image of a nightclub in mind when writing this work. Devoid of melodic direction, this piece seems to move jarringly into different beats from section to section, but it is an aural illusion: the underlying rhythmic unit remains constant. What is changing is the way the divisions of that unit are emphasized.
- [10] Silver Rain This final piece begins with a carefully notated gesture of tones that seem to drop in randomly. It continues with sections that interlock and come back in different guises, leisurely exploring and developing its material.

Joseph Bertolozzi

TO EXPERIENCE BRIDGE MUSIC IN PERSON

Bridge Music the installation is located at the "Franklin Delano Roosevelt" Mid-Hudson Bridge in Poughkeepsie, NY. The installation is of two components: the first consists of audio speakers connected to a playback machine mounted at each of the bridge's two towers on the pedestrian walkway. These locations are known as Listening Stations, and at the touch of a button one can choose any of the ten movements plus the audio tour. The second component is a stereo radio transmission continuously playing on 87.9FM, accessible only within the parks flanking the bridge, namely Waryas Park in Poughkeepsie and Johnson-Iorio Park in Highland, NY. Bridge Music is free and open to the public from April 1 through October 31 at the Listening Stations. The park radios run year round.

Inquiries regarding Bridge Music as a live event can be directed to info@JosephBertolozzi.com

Joseph Bertolozzi is forging a unique identity as a 21st century musician with works ranging from full symphony orchestra to solo gongs. With increasingly numerous concerts across the US and Europe to his credit, he enjoys performances by groups such as the Grammy-winning Chestnut Brass Company as well as orchestras and conservatories. He himself has played at such diverse venues as The Vatican and The US Tennis Open. His concert music and theatrical scores have had particular success, including "The Contemplation of Bravery," commissioned for the Bicentennial of The United States Military Academy at West Point and his incidental score to "Waiting for Godot" at the Festival Internationale de Café Theatre in Nancy, France. He also has a large body of liturgical music for use in both Christian and Jewish worship. Many of his compositions can be heard at www.JosephBertolozzi.com.

Also skilled as an organist, he has performed his own compositions as well as those of the classical literature in the US and in Europe on some of the finest and oldest organs in the world, including St. Peter's Basilica in Rome. He also performs and composes for his percussion project *The Bronze Collection*, a unique collection of over 60 gongs and cymbals from around the world. Bertolozzi's latest explorations in composition have now brought him to *Bridge Music*. This "audacious plan" (*New York Times*) has brought Bertolozzi sustained international attention.

Other CDs by Joseph Bertolozzi: The Contemplation of Bravery — music for orchestra performed by SEATTLEMUSIC, conducted by Joel Eric Suben. BWP 8806; The Bronze Collection — music for gongs BWP 7904

Bridge Music was composed, realized and produced by Joseph Bertolozzi. Engineer: Ron Kuhnke, K-Town Studios, Kingston, NY.

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Sheet music from *Bridge Music* is available from Blue Wings Press by contacting <u>bluewingspress@optonline.net</u>.

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My special thanks go to Sheila and Sarah for their support and encouragement. I love you. J.B.

Bridge Music was made possible by the cooperation and support of The New York State Bridge Authority, John Tkazyik, Mayor of Poughkeepsie, Ray Costantino, Supervisor of the Town of Lloyd, Senator Stephen Saland, Congressman Maurice Hinchey, Dutchess County IDA, Dutchess County Tourism, Ulster County Tourism, the Dutchess County Regional Chamber of Commerce, the Poughkeepsie Quadricentennial Committee, D'Arcangelo & Co, LLP, Drake, Loeb, Heller, Kennedy, Gogerty, Gaba & Rodd PLLC and Signal Graphics.

Thanks go to the following for helping to make *Bridge Music* a reality through their support: Chris Albert; Karen and Doug Abramson; Dean Elmore Alexander and the Marist College Business School; the Bardavon; Carl and Sally Barnes; Doug Bialor; George Bozeman; James and Sharon Burns; Andrea & Paul Ciminello; Steven Chickery; Nancy Cozean; Dutchess County Arts Council; Peter Emminger; Dr. & Mrs. Walter F. Engel Jr; Anthony Feo; John Forman; John Frazee; Gina & Mark Frieder; Dennis Gagnon; Nan & Jeff Genshaft; Fritzie Goodman; Arthur & Margery Groten; Roland Hauer; Mary K. Holdgraf; David & Marilyn Lampell; Sue Lesser; Janet Lowry; Richard & Marsha Lowry; Kathleen Lyons; Majestic Insurance; Al Mauro; Joseph Redwood-Martinez; Marty & Maggie McCann; Dr. Jane McElduff; Mike & Laura McElduff; Sean and Lori McElduff; Modjeski & Masters; Charles Mosco; Sheila Newman; John Normandin & Schatz Bearing Corp; Sara Pasti; C. Gina Peluse; Dave Petrovits; Ed Pietrowski; Lester Picker; Harald Plochberger; Rebecca; Tricia & Steve Rothberg; Ken & Bonnie Scheer; James L. Sedore Jr.; Craig Smith; Josh Stratton; Amy & James Thrasher; Andrew Tomasello; Dom Tornatore; Gloria Turk; the US Military Academy Band at West Point, LTC Timothy J. Holtan, Commander; Mary & Willie Vassalo; Vassar Temple Sisterhood; Paul van Hagen; Rose W.Y. Wong; IBM Matching Grants; Anonymous (5).

Creative Direction: Harry Pack, Tri Arts and Associates Graphics: Mark Evans



(right) Mallets

(below) Handrail spindles 1234 mic placement – recording engineer Ron Kuhnke.





NYSBA laborers (I-r) Rick Warr and Dennis Haines placing mics.





Bertolozzi bowing the cross frame below the roadway.



Bertolozzi climbing up the outside of the lower west tower.



Climbing down to the traveler below the roadway deck, June 20, 2007.



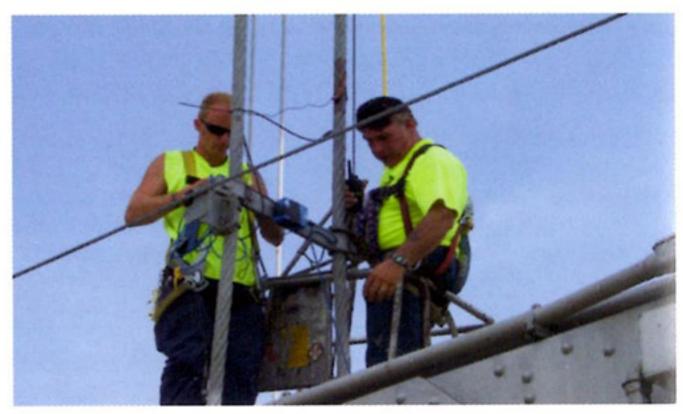
Recording engineer Ron Kuhnke.



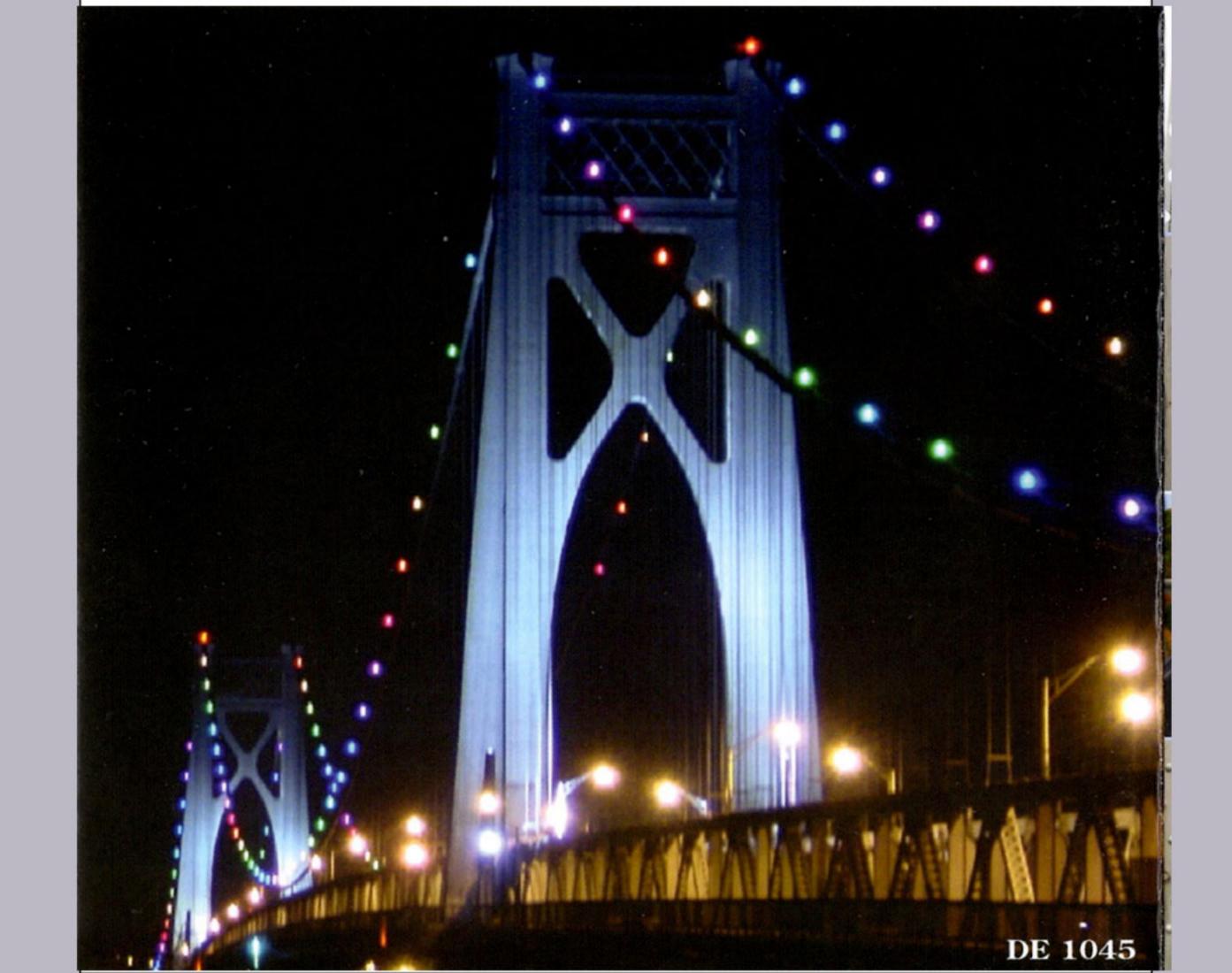
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