Harmony of the spheres

Exhibition Catalogue

Neeko Paluzzi



Founded in 2013, Studio Sixty Six is a gallery focused on contemporary, finely designed, content driven art.

Studio Sixty Six represents 25 professional, Canadian artists producing unique, thought-provoking artwork in a wide variety of media.

Artist Bio

Neeko Paluzzi

Neeko Paluzzi (b. 1988) is a Canadian artist and educator whose practice focuses on conceptual installation. His images blend the possibilities of traditional, analogue darkroom processes with contemporary photographic techniques, such as 3D scanning and printing. He is the winner of the 2018 Project X, Photography Grant from the Ottawa Arts Council and recently had a featured exhibition at the Scotiabank CONTACT Photography Festival.



Harmony of the spheres



With Harmony of the spheres, Paluzzi continues his interest in merging musical tones with photographic tones. Paluzzi draws on the (previously) long-held belief that the visible planets (including the Moon) moved through space while emitting a musical hum. Although there have been countless variations of this idea found in many cultures throughout history, Paluzzi focuses on the theories of Johannes Kepler in his book Harmonice Mundi, 1619. Within the text, Kepler sets out to explain that each planet sings a series of notes in his/her own "voice." Paluzzi has turned those musical notes into movements in the darkroom, as seen in his other musical works: This place is a shelter, 2018 and The goldberg variations, 2019.

Johannes Kepler's Harmonice Mundi: A 'Scientific' version of the *Harmony of the Spheres*

Dr. Bruno Gingras, Department of Psychology Personality, Emotion, and Music Laboratory, University of Innsbruck

Today the notion of the "harmony of the spheres" is merely a myth, which one encounters as a metaphor in poems and novels. However, for many centuries philosophers, music theorists, and astronomers took this idea very seriously, to the point that no serious discussion of astronomy or music theory dared omit a section on the "music of the spheres" (Stephenson 1994).

The great astronomer Johannes Kepler (1571–1630), who nowadays is known mainly for the three planetary laws that bear his name, but who also wrote extensively on mathematics, astrology, music theory, and cosmology, was no exception. His book *Harmonice Mundi*, published in 1619, is considered the last serious attempt to find musical harmony in the motions of the heavens (Stephenson 1994). In an age in which empirical science was quickly overtaking theoretical speculation, and in which observations that contradicted the opinion of ancient philosophers were no longer dismissed, Kepler sought to construct a cosmological theory that would include all the recent developments in the field of astronomy, of which many were his own discoveries, while at the same time preserving the essence of the ancient tradition of "celestial harmony."

Kepler is mostly remembered nowadays for having discovered the three laws of planetary motion, while his cosmological theories are known only to a few historians of science. In 1609, Kepler published the *Astronomia Nova*, which expounded his first and second laws of planetary motion, derived from his study of the orbit of Mars. These laws, which are still valid today, state that:

- 1. the orbit of every planet is an ellipse with the Sun at one focus, and
- 2. the straight line joining a planet and the Sun sweeps over equal areas during equal times.

However, Kepler had not forgotten about the goals he had set for himself when he began his career, and he "combined his search for physical causes with a vision of the world as a manifestation of divine harmony" (Kepler 1619). In his correspondence, Kepler often alluded to the work of Ptolemy, which clearly had not only greatly influenced him, but inspired him to develop his own theory of the harmony of the world that would take into account not only the recent developments in astronomy, but also those of music.

In the first chord, Saturn and Mars can "sing" G (g in the case of Mars) or h, while Mercury can take G, h, or e at some point in its orbit. The remaining planets, Jupiter, Earth, and Venus, are much more restricted, and can take only one note (h for Jupiter, g for the Earth, and e for Venus). In the second chord, Saturn can take G, Jupiter c, Mars c and g, the Earth g, Venus e, and Mercury can take all three notes.

Kepler notices analogies between the roles of the planets and those of singers in a choir. Jupiter and Saturn cover harmonic intervals and have a distance between them varying from an octave to a twelfth, just as a bass part that makes harmonic leaps, Mars "is free, but proceeds modestly," in analogy to a tenor part, while the narrow range of Earth and Venus is, according to Kepler, typical of an alto part. Finally, Mercury, which is the planet that moves the fastest and has the largest range, is likened to a Soprano.

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Kepler concludes his book with a philosophical epilogue in which he entertains the possibility that the Sun, being the centre of the solar system, and the place from which the harmony of the world radiates, would in fact be the seat of the government of nature, populated with princes and chancellors, and perhaps even spiritual beings (although Kepler is careful about not stating anything that would be contrary to Catholic faith). He also presents his dreamy vision of other planets and their inhabitants, concluding with a prayer to God, who shall be praised by the heavenly bodies, by the celestial harmonies and all those who can perceive them, and finally by his own soul.

This is an edited excerpt from the original article which was published in the Journal of the Royal Astronomical Society of Canada in 2003.











Music of mercury

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

BUY

Music of venus

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

8









Music of earth

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

BUY

Music of the moon

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

10









Music of mars

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

BUY

Music of jupiter

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215

12





Music of saturn

Silver gelatin print and silver leaf embossed matte in custom frame 22 x 32 in. / 55.88 x 81.28 cm Edition of 3 2020

\$1215





The great work

The great work is an ongoing series of abstract pieces created by Paluzzi in which he binds metallic solutions onto bare, steel plates. Alchemy attempted to convert lesser metals into more valuable ones and was the backbone of early science in not only Europe but around the world; many alchemists were attempting to create gold through various stages of conversations, while others were searching for the *elixir* of *life*.

During the Post-Renaissance period in Europe, however, alchemy was in decline as philosophers and early chemists were abandoning the *mysticism* of alchemy for empirical-based research which became the foundation of modern chemistry. This transition from *faith* to observable-research occurred in parallel with Copernicus and Kepler who reimagined our place in the Universe by distancing religion from science.

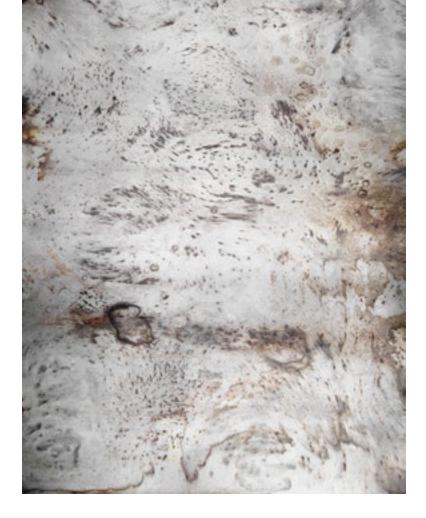
Art shares many similarities with alchemy. It is the artist's job to convert lesser materials into something greater, something of more value, and something that will outlive the artist itself. In *The Great Work*, Paluzzi addresses this act directly by planning to create twelve pieces that follow the twelve classical stages of transmutation. Each steel plate in the series is created through chemical conversation by bathing the plates in metallic solutions which layer metal onto metal. Although the finished pieces are abstract, the creation is deliberate and follows recipes from alchemists.





Calcination
Steel plate with silver
29 x 39 in. / 73.66 x 99.06 cm
Edition of 1
2020

\$1400



Solution (or dissolution)
Steel plate with iron
29 x 39 in. / 73.66 x 99.06 cm
Edition of 1
2020

\$1400



Separation
Steel plate with copper
29 x 39 in. / 73.66 x 99.06 cm Edition of 1 2020

\$1400



