

Keys to the Stars — A Unique Experience

Peter Barthel

Kapteyn Institute, University of Groningen, the Netherlands
E-mail: pdb@astro.rug.nl

Keywords

Science & Art, Music

The International Year of Astronomy 2009 saw the birth of a remarkable arts and science collaboration, between a piano duo and an astronomer. Since 2009, the Dutch Grieg Piano Duo, consisting of the professional pianists Elles van der Heiden and Siebert Nix, and the author have performed together in their project Keys to the Stars. The astronomer accompanies the four-hand piano music played by the Duo with an astronomical video, projected onto a large screen behind the grand piano. The trio has performed compositions by the Estonian composer Urmass Sisask (born in 1960) and Franz Schubert (1797–1828) in several concert halls in the Netherlands during 2009 and 2010 with great success.

The astronomer Peter Barthel led the Groningen University team that won a national Dutch science communication contest in 2008. Their winning project, Discover the Invisible Universe, which focussed on the invisible, but nevertheless exciting infrared Universe, infrared radiation, its discoverer William Herschel, and the Herschel Space Observatory, caught the eye of the pianists, who had just recorded a new CD with astronomy-inspired music by Sisask.

They contacted the astronomer, who is also an enthusiastic amateur pianist, and the initial plans for collaboration were soon laid out.

The composer Sisask (more on him and his music below) provided extra stimulus for the collaboration when he agreed to write a new composition for the trio: entitled *Sombrero Galaxy*. After his opus 24, the *Milky Way Sonata*, and his opus 68, *Spiral Symphony* (both works recorded on CD by the duo), his opus 119, *Sombrero Galaxy*, marks Sisask's third composition for four-hand piano. For inspiration the composer used the poster of the well-known Sombrero Galaxy, Messier 104, published by the European Southern Observatory in 2000, from the Very Large Telescope (VLT) multi-band images obtained by the author and his colleague Mark Neeser earlier that year¹.

The Grieg Piano Duo and the astronomer presented the world premiere of the *Sombrero Galaxy* at a special concert in September 2009, with the composer and the Estonian ambassador to the Netherlands attending. Before that concert they

had already performed Sisask's *Milky Way Sonata* at the Dutch launch of the International Year of Astronomy 2009 in Amsterdam, and his *Spiral Symphony* at a concert as part of the Peter de Grote (Peter the Great) Festival in the north of the Netherlands. The Piano Duo and astronomer generally combine the three works of Sisask with a well-known piece by Franz Schubert, his 1828 *Lebenstürme (Storms of Life) Allegro*. Together these four compositions make up a unique experience in a complete concert-with-video programme, which has been performed in December 2010 at various venues and is generally highly appreciated by the attendants. For the astronomical video Barthel uses public images from the VLT, Hubble, Spitzer, and other telescopes: the video scenes are projected in phase (to the second) in a continuous sequence with the live piano music.

A trailer of *Keys to the Stars* can be found online² and information concerning performances, bookings, technical requirements, costs, etc. can be obtained from the author³ as well as from the pianists⁴.



Figure 1. The professional pianists Elles van der Heiden and Siebert Nix, have performed together with Dutch astronomy professor Peter Barthel. Credit: Elmer Spaargaren.



Figure 2. The Sombrero performance in Groningen, the Netherlands. Credit: Antoinette Borchert.

Urmass Sisask's Universe

Urmass Sisask's compositions are strongly influenced by his own astronomical observations in his home country Estonia. His works are eclectic in style, and at the same time infused by strong symbolism, giving them a meaningful sound and effect. His starting point is often a combination of professional shamanistic meditation together with the influence of galactic relationships at that particular moment. This approach has led to a unique musical system, known as astro-music. This system gives his four-hand piano works with two pianists at one instrument a totally new approach to the piano, involving playing techniques like plucking and muting strings, glissandi on strings and keys, and very frequent use of the right pedal. Pressing down a series of keys simultaneously with an elbow in combination with staccato playing opens up sound possibilities with the upper tones. These playing techniques reveal the true spatial resonances that are hidden in the piano, thereby becoming an instrument of cosmic and musical harmonies. The pianists become very close to their instrument. Urmass Sisask's compositions are published by Edition 49 in Karlsruhe, Germany.

Notes

¹ <http://www.eso.org/public/news/eso0007/>

² <http://www.griegpianoduo.com>

³ pdb@astro.rug.nl

⁴ griegpianoduo@home.nl

Biography

Peter Barthel is astronomy professor at the Kapteyn Institute, University of Groningen in the Netherlands. In 2008, together with his team, he won the national Dutch science communication contest. During the International Year of Astronomy 2009 he collaborated with the professional pianists Elles van der Heiden and Siebert Nix to bring together a project merging astronomy and music.