“Galaxies”

-full description-

The Milky Way

The Milky Way which for the bare eye during cloudless winter and spring nights looks just an even stream of light in the sky and a two-forked one in summer and autumn, is actually a gigantic spiral constellation containing ca 150 billion stars, lots of spheric formations, up to 100,000 loose formations, nebulae, etc. At about the distance of ten kiloparsec from the Solar System, in the Sagittarius constellation is the nucleus of the Milky Way, at the heart of which in its turn is a huge Black Hole. The whole starry sky that is visible to us including the Solar System rotates around the centre of the Milky Way with a period of 237 million years at the speed of 220 km per second. That is the average speed of our starry merry-go-round. Similar to the Andromeda the Milky Way is a triplesystem. In the Southern Sky one can bare-eyed observe two irregular nebulae – the Big and the Small Magalhaes Clouds that are the closest neighbors to our galaxy.

In numerous myths and legends these parts of the galaxy have been described as a firtree – a childbearing mother, and a birchtree – the male element. Thus the first of the Sonata’s two parts refers to the meaning of the two-forked Milky Way – birth, evolution and the origination of the present structure. The evolutionary tensions culminate at the end of the first part which is followed by the *absolute peace* in the second. In the coda an ancient Karelian *runo* tune emerges accompanied by the hints of Väinämöinen´s psalteri indicating the uniting of the two elements and the Gateway to Heaven.

The Andromeda

The Andromeda (M31) is often called the sister of the Milky Way due to their structural similarity. Likewise the Andromeda consists of approximately 150 – 200 billion stars arranged around the nucleus in the centre of which there is a Black Hole. Similarly to the Milky Way the triple system of the Andromeda is one of the few galaxies approaching us. As the closest gigantic galaxy, the Andromeda together with its two elliptic dwarfgalaxies is about three billion light-years away. This is at the same time also the most distant object for bare-eyed observation.

Musically “The Andromeda” sonata is a shamanistic trip to the huge constellation, an imaginary entrance into the nucleus, into the Black Hole... At the beginning of the composition there is a musical quotation from the piano cycle “Northern Skies” – the Andromeda – the Force – the Thunder, the Rainbow. The musical texture, intra-piano sound effects, dynamics and form of this work express the ultimate universal harmony, inner force that makes one feel like an imaginary space tourist, a minute particle of enormous perfection.

The Spiral Symphony

Urmas Sisask himself says about “The Spiral Symphony”: „Most of the matter in the universe is concentrated into galaxies which in their turn form larger or smaller groupings. Thus the whole universe is a well regulated evolutionary system. The galaxies consisting of hundreds of billions stars are like megacities different from each other. However, there is the structural similarity – we can find spiral, rod-spiral, elliptic, lens-formed and irregular galaxies.

The present musical work explores only some of the best-known among the spiral galaxies. The most important constellations – The Milky Way and The Andromeda (M 31) – have already earlier been exploited in his piano sonatas.

1.“The Intertwined Spirals” – in Cepheus constellation of the multispiral asymmetric galaxy NGC 2276 (brightness $12{,}5^{m}$) there are lots of hot newborne stars. That complies with the explosions of several supernovas in the same galaxy at the end of the last century.

2. “The Freezing Double Spirals”. The binuclear double galaxy M 51 (NGC 5195) in the Canes Venatici constellation is one of the most beautiful. Thanks to its great brightness the gigantic constellation can even be found with the help of ordinary binoculars. The two „loving couples“ are connected by the force of gravity between the stars.

3. “The Sleeping Beauty”. Restless spirals. M 64 alias The Sleeping Beauty Berenice in the Coma Berenices constellation (brightness $8{,}9^{m}$) is not as placid as it seems. An extraordinary phenomenon was discovered recently – the rotation direction of the centre is contrary to the one of the outer layers. Most probably the spiral gigant galaxy has swallowed up a smaller one that in the embrace of the bigger one continues to rotate in its own original pace and direction.

4. “The Peace of the Rod-Spirals”. NGC 1365 with the brightness 10,5m in the constellation of Fornax is the most beautiful specimen of the rod-spirals.

5. “The Disorder of Spirals”. The irregular spiral galaxy M 66 in the Leo constellation, brightness $8{,}9^{m}$.

6. “The Gigantic Spirals”. The gigantic galaxy M 81 in The Great Bear, brightness $8{,}1^{m}$. The Black Hole in the Mele galaxy lives a peaceful quiet life like a dormant volcano that only now and then mildly reminds us of its existence. The relatively close M 81 has on the basis of the observation by the Hydrogene method recently collided with its two neighbors – the galaxies 82 and NGC 3077 – because we can see the gas streams between them. The addition of the fresh gas into the nucleus of M 81 has apparently caused its moderate activation. Drawing parallels with volcanoes one might say that it has started smoking.

7. “Broken Spirals”. The next beautiful representative of The Great Bear is M 101 with the brightness $8{,}7^{m}$. The neighboring galaxies have caused density waves in the gigant M 101 that consequently lead to the formation of massive hot stars.

8. “The Distant Flock Of The Virgo Galaxies”. A parade of spirals. Most of the galaxies in Virgo are well studied. It has been discovered that they gather into a superflock of galaxies. The closest superflock to us is located in The Virgo. Structurally they vary a great deal and are in general very inspiring. The superflocks in their turn form flocks of the flock, i.e. metagalaxies. Thus the universe is organised into a honeycomb-like cellular structure.

9.“The Spiral Final”.

Nata-Ly Sakkos has graduated as pianist under the supervision of Prof Laine Mets from Tallinn State Conservatory, Toivo Peäske was a student of Prof Anna Klas and Ada Kuuseoks. Both took their chamber ensemble post-graduate course under the supervision of Tamara Fiedler at the Leningrad Conservatory named after Rimski-Korsakov and they currently teach chamber ensemble at the Estonian Academy of Music. By today their repertoire contains more than fifty pieces of music. It comprises basically all the classical works for two pianos and a considerable part of the music composed for four hands. The piano duo has participated in many international festivals, among them in Jekaterinburg, St Petersburg, Novosibirsk, Joensuu, Estonian Cultural Days in Karlsruhe, the Festival of Baltic Music in Stockholm. In Feb 2000 the duo celebrated its 25th jubelee with a successful festival.

BIOGRAPHY

Urmas Sisask, a composer and an amateur astronomer, was born in Rapla, Estonia, in 1960. He has studied composition with René Eespere in the Estonian Academy of Music.His main activities, besides composing serious music, include astronomic observations and numerous concert lectures in the Musical Planetarium in his native village of Jäneda. Urmas Sisask's interest in shamanic activities was deepened during the so-called singing revolution, and he feels that rituals represent one of the most important forces that help us carry on.

As a composer, Urmas Sisask has written for piano, ensembles, orchestras and choirs. He has composed the music for several films, notably for Rein Maran's nature documentaries, as well as for theatrical pieces. The central idea that permeates his works is the theme of the starry sky.

Urmas Sisask's works have been released on seven CDs, his music is published by Edition 49, Eres Edition, Alcanto and Warner Music Chappell.

TALLIN PIANO DUO

Nata-Ly Sakkos has graduated as pianist under the supervision of Prof Laine Mets from Tallinn State Conservatory, **Toivo Peäske** was a student of Prof Anna Klas and Ada Kuuseoks. Both took their chamber ensemble post-graduate course under the supervision of Tamara Fiedler at the Leningrad Conservatory named after Rimski-Korsakov and they currently teach chamber ensemble at the Estonian Academy of Music. By today their repertoire contains more than fifty pieces of music. It comprises basically all the classical works for two pianos and a considerable part of the music composed for four hands. The piano duo has participated in many international festivals, among them in Jekaterinburg, St Petersburg, Novosibirsk, Joensuu, Estonian Cultural Days in Karlsruhe, the Festival of Baltic Music in Stockholm. In Feb 2000 the duo celebrated its 25th jubelee with a successful festival.