

# THE FIRM 2022

## CONCERT 3

PRESENTED IN PARTNERSHIP WITH  
THE SOUTH AUSTRALIAN MUSEUM

DEC 18

The Firm's annual concert seasons  
are conceived, programmed, curated and directed by  
composers Quentin Grant and Raymond Chapman Smith.

The Firm was founded in 1996.

This is our 136th concert.

(On hearing Bach)

"Now there is music from which a man can learn  
something."

W. A. Mozart

We present this concert to celebrate the 10th anniversary of the Voyager space probe leaving the solar system, and the 300th anniversary of J.S. Bach's Well-Tempered Clavier, The Firm presents this celebratory concert in partnership with the South Australian Museum.

Alongside Bach we will have beautiful new works for strings and handbells especially written for the concert by composers Rachel Bruerville, Georgina Bowden and Jakub Jankowski.

Front piece: The Golden Record that was included aboard both Voyager spacecraft launched in 1977 as a message to the cosmos and to whoever might chance upon them.

In the upper left-hand corner of the record cover is a drawing of the phonograph record and the stylus carried with it. The stylus is in the correct position to play the record from the beginning. Written around it in binary notation is the correct time of one rotation of the record, 3.6 seconds, expressed in time units of 0.70

billionths of a second, the time period associated with a fundamental transition of the hydrogen atom. The drawing indicates that the record should be played from the outside in. Below this drawing is a side view of the record and stylus, with a binary number giving the time to play one side of the record—about an hour (more precisely, between 53 and 54 minutes).

The information in the upper right-hand portion of the cover is designed to show how pictures are to be constructed from the recorded signals. The top drawing shows the typical signal that occurs at the start of a picture. The picture is made from this signal, which traces the picture as a series of vertical lines, similar to analog television (in which the picture is a series of horizontal lines). Picture lines 1, 2 and 3 are noted in binary numbers, and the duration of one of the "picture lines," about 8 milliseconds, is noted. The drawing immediately below shows how these lines are to be drawn vertically, with staggered "interlace" to give the correct picture rendition. Immediately below this is a drawing of an entire picture raster, showing that there are 512 ( $2^9$ ) vertical lines in a complete picture. Immediately below this is a replica of the first picture on the record to permit the recipients to verify that they are decoding the signals correctly. A circle was used in this picture to ensure that the recipients use the correct ratio of horizontal to vertical height in picture reconstruction. Color images were represented by three images in sequence, one each for red, green, and blue components of the image. A color image of the spectrum of the sun was included for calibration purposes.

The drawing in the lower left-hand corner of the cover is the pulsar map previously sent as part of the plaques on Pioneers 10 and 11. It shows the location of the Solar System with respect to 14 pulsars, whose precise periods are given. The drawing containing two circles in the lower right-hand corner is a drawing of the hydrogen atom in its two lowest states, with a connecting line and digit 1 to indicate that the time interval associated with the transition from one state to the other is to be used as the fundamental time scale, both for the time given on the cover and in the decoded pictures.

# The Firm

In partnership with the South Australian Museum

presents

Paris Netting, violin

Thomas Marlin, cello

Gustavo Quintino, double bass

Ali O'Connell, hand-bells

Ich ruf' zu dir. BWV 639

Vom Himmel hoch 1. BWV 769

Vom Himmel hoch 2. J.S. Bach arr. R Chapman Smith

*A Cosmic Imprint* Rachel Bruerville

*Violin Partita No 3 in E major (selections)*

J.S. Bach

*A Sky of Lenses* Georgina Bowden

*Cello Suite No.3* J.S. Bach

*Poème Saturnien* Jakub Jankowski

*Sinfonia 9. BWV 795*

J.S. Bach arr. R Chapman Smith

Ich ruf' zu dir. BWV 639

Vom Himmel hoch 1. BWV 769

Vom Himmel hoch 2.

J.S. Bach arr. R Chapman Smith

*A Cosmic Imprint*

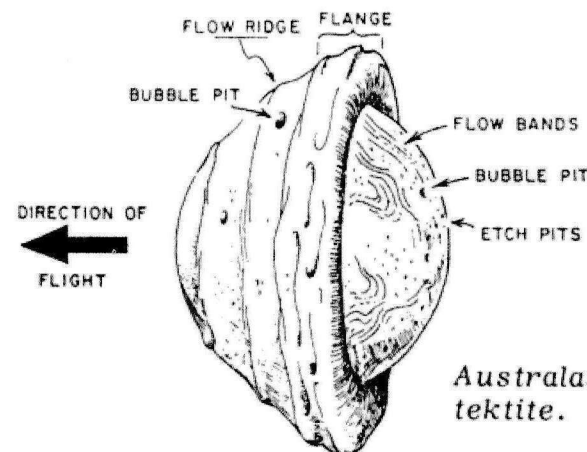
Rachel Bruerville

From the Australian Museum, Sydney: "Tektites are small, pebble-like glassy objects of Earth material that have been melted by meteorite impact, splashed up into our atmosphere, and fallen to Earth again under gravity."

From the Wordpress blog, 10 Minute Astronomy: "Tektites are travellers in space and time, a frozen snapshot from the moment that a giant rock from space slammed into our planet."

The 'Crystal Council' also tells us that "Tektites resonate at a very high frequency, enabling one to elevate their consciousness to new dimensional heights."

I am \*certainly\* not an advocate for crystal healing, but I do find it fascinating that these objects embody both the terrestrial and extraterrestrial - they are from Earth, but they also "contain the energy of the stars" (as described by the Rock Crystal Shop). In this meditation for bells and strings, the bells float in space, while the strings ground us back to Earth.



Australasian  
tektite.

**Violin Partita No 3 in E major BWV 1006.1 (selections)**

**J.S. Bach**

**1. Gavotte**

**2. Bouree**

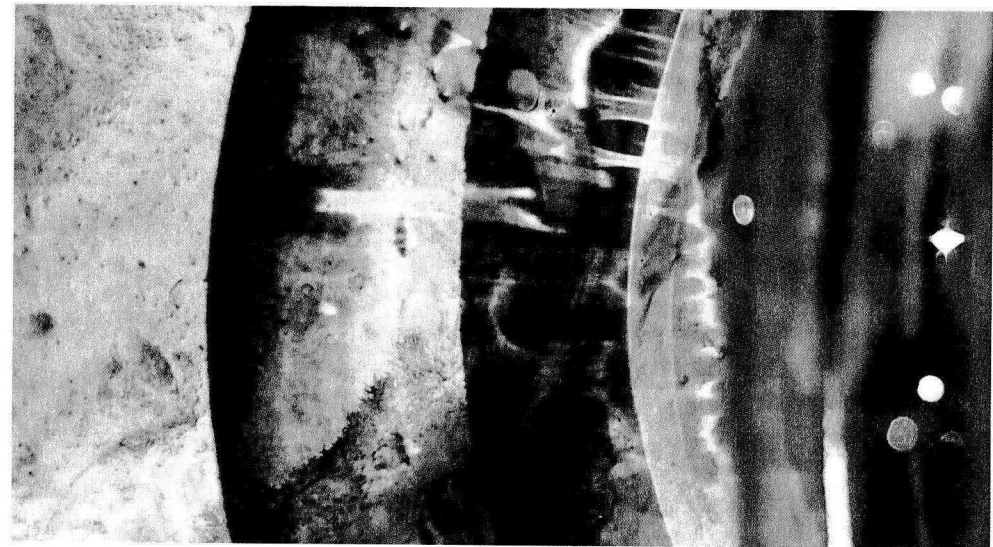
**3. Gigue**

The *Gavotte* is one of three Bach pieces on the two Golden Record discs. The others are "*The Well-Tempered Clavier*, Book II: Prelude and Fugue No. 1 in C Major, BWV 870, and the Allegro from Brandenburg Concerto No. 2 in F Major, BWV 1047.



***A Sky of Lenses* Georgina Bowden**

Across the night sky, a many-layered gravitational lensing turns the very distant stars into a warped and stretched illusion. Their images are distorted in various ways due to the light's route around massive space objects. 'A Sky of Lenses' explores musical ideas of bending, inspired by these principles.



**Cello Suite No.3 BWV 109****J.S. Bach**

1. Prelude
2. Allemande
3. Courante
4. Sarabande
5. Bourrée I / II
6. Gigue

**Poème Saturnien** à Paul Verlaine **Jakub Jankowski**

... Ring, bells; peal, chimes; peal, ring, bells large and small!  
My hopeless dream takes shape: for Happiness—  
Here, now—lies clutched, embraced in my caress;  
Winged Voyager, who shuns Man's every call;  
—Ring, bells; peal, chimes; peal, ring, bells large and small! ...

(Paul Verlaine, from "Nevermore" \* from *Poèmes Saturniens*;  
trsl. Norman R. Shapiro)

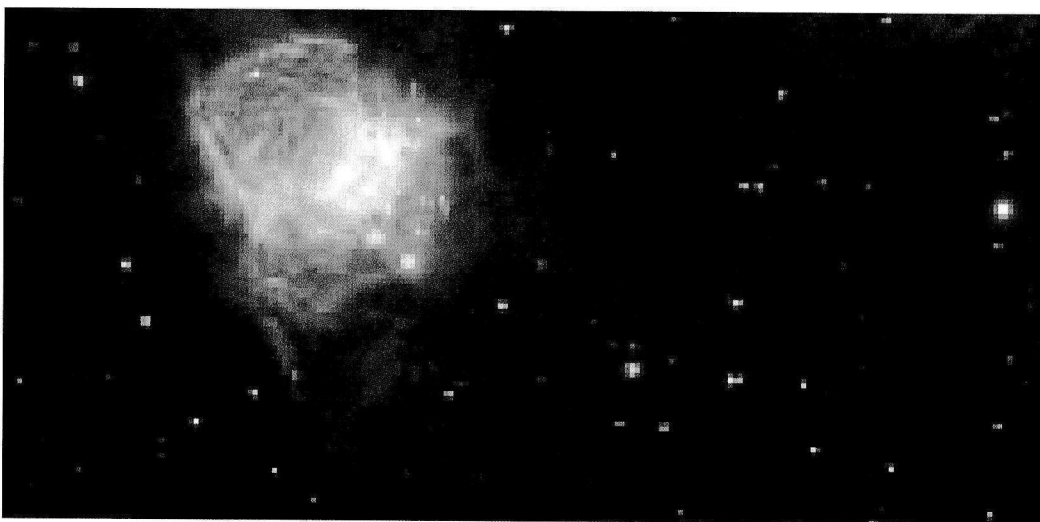
In traditional Astrology, Saturn is associated most notably with the melancholic humor (of which it is the governing planet). Willow trees (due to their drooping branches) have likewise been historically associated with the melancholic humor - and accordingly, fragments of the Ukrainian folk-song: 'Verbovaya Doshchechka' (the willow-board plank) make an important contribution to the musical form of the work. I conceived of my *Poème Saturnien* as both an homage to Paul Verlaine - a true poetic master of the Saturnian - and as a musical apotropaic.





## Sinfonia 9. BWV 795

J.S. Bach arr. R Chapman Smith



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**Form-in-Residence**

**will be the *Fantasia***

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# the firm

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