

# Gordon Monahan

SONIC SHADOWS  
IMAGINED SOUNDSCAPES FOR TOM THOMSON



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# EXHIBITION STATEMENT

Parallel to Tom Thomson's lifelong dedication to the visual arts was his keen interest in music. In letters written in the 1930s to Thomson's first biographer, Blodwen Davies, his siblings reflect on this lesser-known aspect of the artist's life, evocatively describing him as someone who was nurtured in a musical household, could often be overheard whistling or singing as he sketched, and played multiple instruments skillfully, including the cornet, trombone, and mandolin.

In this exhibition, Gordon Monahan has composed original music inspired by the soundscapes and environments that Thomson would have been exposed to during his lifetime, including selected hymns and popular songs of the late 18th and early 19th centuries, as well as loon and wolf calls, and even birch bark that Monahan has transposed into sheet music inspired by the similarity of its markings with those on a piano roll. Recordings of these compositions are transmitted through Victorian era artifacts, transforming them into sound sculptures that emit their own unique sounds through sonification, and that further activate the space through the sympathetic vibration of surrounding objects. The result is an immersive acoustic sound installation that evokes haunting soundscapes in homage to Tom Thomson.



# ABOUT THE ARTIST

(born Kingston, Ontario 1956)

Gordon Monahan's works for piano, loudspeakers, video, kinetic sculpture, and computer-controlled sound environments span various genres from avant-garde concert music to multi-media installation and sound art. As a composer and sound artist, he juxtaposes the quantitative and qualitative aspects of natural acoustical phenomena with elements of media technology, natural environments, architecture, popular culture, and live performance. In addition to creating a significant number of sound installations and sound art performances, Monahan also composes concert music for traditional instruments. The renowned composer John Cage once said, "At the piano, Gordon Monahan produces sounds we haven't heard before."

Since 1978, Monahan has performed and exhibited at numerous performance spaces, museums, galleries, and festivals, including Hamburger Bahnhof (Berlin), the Venice Biennale, the Secession (Vienna), Ultima Festival (Oslo), Hebbel Theater (Berlin), The Kitchen (NY), the Walker Art Center (Minneapolis), Merkin Hall (NY), and Massey Hall (Toronto).

Monahan is the recipient of a 2013 Governor-General's Award in Visual and Media Arts. He won First Prize at the 1984 CBC National Radio Competition for Young Composers, as well as commissions from the Vancouver New Music Society; CBC Radio; Dade County Art in Public Places, Miami; The Kitchen, New York; the DAAD Inventionen Festival, Berlin,



the Donaueschinger Musiktage, the Sony Center, Berlin, the Beethoven Foundation (bonn-hoeren), Bonn, and the London Contemporary Orchestra (UK). His controversial commission for the Dade County MetroRail transit system was banned during the 1988 New Music America festival in Miami. That same year, Monahan was chosen as CBC Radio's entry to the International Rostrum of Composers in Paris. Monahan has been Artist-in-Residence at the Banff Centre for the Arts (1990), the Exploratorium in San Francisco (1991), D.A.A.D., Berlin (1992-93), the Western Front, Vancouver (1999), Podewil, Berlin (2002), Kunsthalle Krems, Austria (2006), Museumsquartier, Vienna (2008), Warsaw Autumn, Warsaw (2010), bonn-hoeren (Beethoven Foundation), Bonn (2016) and a fellow with the New York Foundation for the Arts (1991).

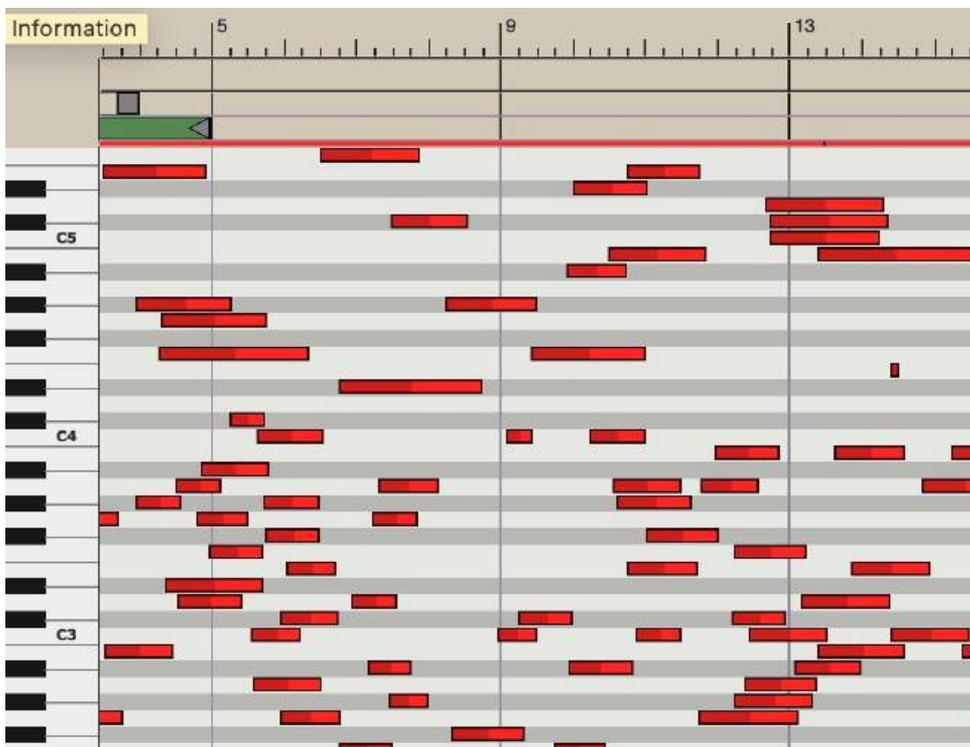
# ARTIST STATEMENT

For this new work, Gordon Monahan takes various artifacts from the period of Thomson's life (furniture, musical instruments, artifacts, and various household items of the period) from the collection of the Tom Thomson Art Gallery and the local Grey Roots Museum and Archives, to use as sonic media for the processing and transmission of music specifically composed for this piece. Tactile transducers<sup>1</sup> are attached to the various artifacts so that when musical recordings are transmitted into the transducers, the artifact becomes a sounding object, a transmitter of recorded sound, and essentially, a sound sculpture in itself.

In addition to his legacy as a painter and visual artist, Tom Thomson was also a talented musician who was a multi-instrumentalist. His musical upbringing included singing in the church at Leith, Ontario, and playing organ, piano, violin, mandolin, and cornet at home. He travelled with a mandolin, and therefore it can be assumed that he played and sang regularly, perhaps daily. This would suggest that Thomson's life as a naturalist, fishing guide, wilderness and landscape painter, included his awareness of the natural soundscape. Thus, his musical and artistic contemplations may be juxtaposed within the context of his sensory awareness of both the natural landscape and natural soundscape.

Monahan has composed original pieces of music derived from several disparate sources related to Thomson's natural and musical world:





- A piece of birch bark is graphically transposed to sheet music, based on the similarities of birch bark to piano rolls (a common source of ‘recorded’ piano music during Thomson’s era). Imagine a birch tree where the bark is scanned forwards and backwards, sometimes spinning around the circumference of the tree faster or slower, recorded into musical notation and played on various instruments, including plucked strings, harpsichord, percussion and piano.
- The calls of loons and wolves serve as a second set of sound sources, imagined and played on an Ondes Martenot,<sup>2</sup> an instrument that was developed in the years during and following the first World War, corresponding to the last years of Thomson’s life.
- Selected hymns and popular songs of the 18th and 19th centuries—repertoire that Thomson may have performed—become musical source material that Monahan uses to create new compositions for instrumental ensemble.<sup>3</sup>

When viewed through the lens of acoustic analysis and wave vibration, the playing of music in any physical space results in the sympathetic vibration of surrounding objects situated in that space, as the sound waves from music simultaneously vibrate other nearby objects. This transfer of sound and vibration into adjacent objects and materials is a subtle yet ubiquitous phenomenon that is not often apparent to our senses. However, if one attaches a contact microphone to an adjacent table or other piece of furniture and amplifies these induced vibrations, a transformed version of the original sound becomes audible. Reversing this process by attaching contact transducers to the furniture results in a somewhat ghostly acoustic apparition that reconstitutes imagined musical sounds that may have vibrated into these historical local artifacts during the lifetime of Tom Thomson.

We sometimes speak of objects—those we view with

historical, cultural, or personal significance—as having a ‘resonance’. While this alludes to an object’s historical or personal significance, the concept is taken a step further by giving the object a tangible sonic resonance, through the sonification and re-sonification of historical artifacts.

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1. A tactile transducer is a simple form of a loudspeaker, but it doesn’t have a speaker cone and therefore does not resemble or act as a regular loudspeaker. It consists of a magnet and a copper-wound coil, so that when it is attached to the speaker output of an audio amplifier, it will vibrate from the sound transmitted into it, such as from prerecorded sound files. However, since it doesn’t have a speaker cone it doesn’t reproduce audible sounds unless it’s attached to a resonant surface, such as a piece of wood or metal. Therefore, if it’s attached to a piece of furniture such as a table, chair, cabinet, or a wooden instrument, then that object will become the resonating vessel that will reproduce the sound transmitted into the tactile transducer. The sound reproduction will be quite realistic and the loudness of the sound can be adjusted at the amplifier. In this way, the piece of furniture becomes a resonant vessel for the reproduction of sound, and replaces the loudspeaker, as it actually becomes a sound sculpture in itself.

The practice of using tactile transducers is becoming more commonplace today since they are being manufactured and marketed more widely, however, the historical practice of combining transducers and everyday objects to reproduce sounds dates to at least to 1968 when David Tudor began his series of sound pieces entitled ‘Rainforest’. The most famous of Tudor’s pieces from this series is ‘Rainforest IV’ (1973) which continues to be exhibited at many prominent international cultural institutions worldwide by the group Composers Inside Electronics which was founded by Tudor in 1973.

2. The Ondes Martenot is one of the earliest electronic music instruments and produces sounds similar to a Theremin. Invented in 1928 by Maurice Martenot, who had been a radio operator during World War I, it was developed as an attempt to replicate the accidental overlaps of tones audible on radio oscillators. ([https://en.wikipedia.org/wiki/Ondes\\_Martenot](https://en.wikipedia.org/wiki/Ondes_Martenot)).

3. Monahan has composed original musical compositions using source material from “Amazing Grace” (John Newton, 1772), “Nearer My God, To Thee” (Sarah Flower Adams, 1841), and “Jeanie With the Light Brown Hair” (Stephen Foster, 1854).



# SONIFICATION: A SHORT HISTORY

**1908** - Co-invented by German physicists Johannes Wilhelm “Hans” Geiger (1882-1945) and Walter Müller (1905-1979), the Geiger counter is one of the earliest and most successful applications of sonification. It detects radiation via a tube of low-pressure gas that, when ionized, produces an audio click.

**1912** - One month after the sinking of Titanic, English meteorologist Lewis Fry Richardson (1881-1953) submitted the first patent for an underwater echo-ranging device.

**1913** - Canadian-born inventor Reginald Fessenden (1866-1932) created the “Fessenden oscillator,” a transducer that sent and received signals. Fessenden’s process is described as SOUNd NAVigation Ranging, commonly known as sonar.

Fessenden also made the first transmission of speech by radio in 1900 and the first two-way radiotelegraphic communication across the Atlantic Ocean in 1906.

Irish physicist Edmund Edward Fournier d’Albe (1868-1933) invented the optophone, which scanned text and generated time-varying chords of tone to identify letters. The audible output that could be “read” by a blind person.

**1968** - American composer, pianist, and sound artist David Tudor (1926–1996) composed a sound score for the dance performance Rainforest by Merce Cunningham (1919– 2009). Tudor created bird and animal-like sounds by transmitting audio through tabletop and suspended objects using

contact transducers. He called these objects “instrumental loudspeakers.” This is the first applied use of re-sonification in the arts. Tudor eventually developed a series of large-scale sculptural sound installations using re-sonification called Rainforest.

### ***What is Sonification?***

Sonification is the rendering of data into an audible or sonic form.

### ***What is Re-Sonification?***

Re-Sonification is the process of taking an audio source and transmitting it into a physical object. In this process, the object becomes “sonified” as sound is transmitted through it. The object becomes audible to the ear of the listener.

### ***How does it work?***

The playing of music in any physical space results in vibration throughout the room. The sound waves from music simultaneously vibrate other nearby objects. This transfer of sound is a subtle but common phenomenon that is not often audible to the naked ear. By attaching a contact microphone to objects in the room, the vibrations are amplified in a clear (if distorted) version of the original sound.





# CREDITS & RESOURCES

The Tom Thomson Art Gallery in Owen Sound, Ontario, commissioned Gordon Monahan to create a sound installation based on Tom Thomson's musical life. The exhibition runs from June 15 to September 14, 2024.

Period furniture and artifacts were provided by Grey Roots Museum and Archives, coordinated by curator Sim Salata.

The artist wishes to thank Laura Kikauka for assistance in the realization of this project.

**Page 1, 4, 12, 15, 16** - Installation images of *Gordon Monahan - Sonic Shadows: Imagined Soundscapes for Tom Thomson* by Becky Comber.

**Page 6** - Photograph of the artist, Gordon Monahan, by Daisy Loewl. Courtesy of the artist.

**Page 8** - Installation image of *Gordon Monahan - Sonic Shadows: Imagined Soundscapes for Tom Thomson* by Gordon Monahan. Courtesy of the artist.

**Page 9** - Musical transcription (top) and scanned image of birch bark (bottom). Courtesy of the artist.

All original music composed by Gordon Monahan for *Sonic Shadows: Imagined Soundscapes for Tom Thomson* is available to listen online at:

<https://.gordonmonahan.bandcamp.com>  
or using the QR code below:



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