

**Donald Fortescue: Instrument (90°S)**  
**Collection CAE1911**

**Introduction/Abstract**

*Instrument (90°S)* is a musical and an atmospheric instrument that was conceived and installed in Antarctica as part of the NSF Antarctic Visiting Artists and Writers program by artist Donald Fortescue. Materials include NSF Antarctic Visiting Artists and Writers program materials, journals, instrument maquette, and music score.

**Biographical Note: Donald Fortescue**

Donald Fortescue is a Professor of Art and Design at the California College of the Arts (CCA) in San Francisco. He was born in Sydney, Australia, where he studied zoology and botany for his first degree and worked as a botanical consultant and scientific illustrator for many years. His love of making lead him to further studies in design at the Australian National University and then to a master's degree in Sculpture. He moved to the US in 1997 to head the Furniture Design program at CCA. He has exhibited in Australia, the US, Europe, Asia and South America. He received the Experimental Design Award from San Francisco's Museum of Modern Art in 2001 and his work is in the permanent collections of the National Gallery of Australia, the Powerhouse Museum in Sydney, the Museum of Art and Design in New York, the Houston Museum of Fine Art and the San Francisco Museum of Modern Art.

His work involves the use of digital technologies (digital treatment of photographic images, digital stereo imagery and video, computer modeling and mapping of sculptural forms and digitally recorded and treated sound) in tandem with antiquated technologies and craftsmanship associated with expeditions of discovery from the Enlightenment era to the early 20th Century (whittling, scrimshandering, scientific illustration, and the fabrication of instruments of collection, recording and display). By combining these seemingly disparate technologies, Fortescue investigates their underlying meanings. Fortescue completed a Ph.D. at the Australian National University in 2019. His research explored congruencies between the methodologies, aspirations and limits of 'science' and 'art' through his polar projects.

**Scope and Content**

*Instrument (90°S)* is a hybrid object, a sculptural work embodying an artist's strategy for experiencing and understanding a challenging and difficult to comprehend environment. The instrument served as a polar marker and is an indexical artefact of Fortescue's fieldwork at the South Pole made possible as a participant in the National Science Foundation's Antarctic Visiting Artist and Writers program. Both a musical and an atmospheric instrument, it relied on technologies and craftsmanship developed for musical instruments (featuring a wooden pre-stressed resonator held in tension by piano strings which are tuned with both mechanical piano pegs and moveable bridges, and bowed by a rosined mechanical wheel much like a hurdy-gurdy). But it also was specifically designed and constructed to respond to the harsh conditions of the Pole. Like scientific instruments it can be tuned, and it responds in different ways to different levels of input. And like all scientific instruments it produces data – in this case sound. The *Instrument* is a transduction device – it converts energy from one form into another so that it can be perceived and recorded. It transduces the flow between air pressure differentials (i.e. wind), through harmonic vibration into sound which is audible and can be recorded for future work. *Instrument (90°S)* operated in conceptual and physical adjacency with another transduction instrument (the IceCube Neutrino Observatory), which catalyzed discussion, analysis, creativity and collaboration with particle physicists.

Materials include NSF Antarctic Visiting Artists and Writers program materials, journals, research and field materials, instrument maquette, music score, and PhD dissertation located in the Research Library.

**This archive is currently in process.**