

Special Section

ArtScience: The Essential Connection

Guest Editor: Robert Root-Bernstein

The third installment of a Leonardo special project exploring the work and writings of artistic scientists who find their art avocation valuable; scientifically literate artists who draw problems, materials, techniques or processes from the sciences; or others interested in such interactions.

Call for Papers

What is the value of artistic practices, techniques, inventions, aesthetics and knowledge for the working scientist? What is the value of scientific practices, techniques, inventions, aesthetics and knowledge for the artist? When does art become science and science, art? Or are these categories useless at their boundaries and intersections?

Can an individual excel at both science and art, or is even a passing familiarity with one sufficient to influence the other significantly? Do the arts ever contribute significantly to scientific progress? Where will current scientific innovations lead the arts in the next few decades?

Leonardo will publish a series of special sections over the next 3 years devoted to exploring these questions. Submissions can be from artistic scientists who find their art avocation valuable; from scientist-artist collaborators who can demonstrate a scientific or artistic innovation; from scientifically literate artists who draw problems, materials, techniques or processes from the sciences; or from historians of art or science looking at past examples of such interactions.

Interested authors are invited to send proposals, queries and/or manuscripts to the Leonardo editorial office: Leonardo, 800 Chestnut St., San Francisco, CA 94133, U.S.A. E-mail: <isast@leonardo.info>.

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FREDERICK BANTING, PAINTER

Frederick Grant Banting (1891–1941), a self-trained scientist, is remembered for discovering insulin in 1922, along with Charles Best. While medicine was Banting's major focus, he was, like many successful scientists, interested in many things. He fancied himself an amateur geologist and cultural anthropologist of Canada's far north. He had a lovely, untrained voice, with which he sang throughout his life. He also had an artistic bent. As a child he enjoyed sketching the natural beauties around his family's Ontario farm and practiced pyrography (the burning of images into wood) [1]. Although he never received formal arts training at school, he took up painting as his primary pastime when he returned from World War I and found few patients for his medical practice. He was self-trained in art, as in science; his initial ignorance of painting was profound. One story recounts that as a beginner he went into a local artists' supply shop and asked for paper and colors. "What kind?" asked the shop clerk. Banting did not know. The clerk was equally ignorant. So Banting, ever the experimentalist, just took a guess and started [2].

Banting did not take his painting seriously until after he was awarded his Nobel Prize in 1923. He invested much of his award in paintings and joined the Arts and Letters Club in Toronto and the Art Students' League, where he helped to foster younger artists. These

activities took him into various galleries, in one of which he eventually met the painter Alec Jackson, one of the Group of Seven that was revolutionizing Canadian art. Jackson painted evocative scenes of the Canadian wilderness using a style that combined elements of post-impressionism and expressionism. The style first confused Banting, but careful study led to understanding, and he began to take lessons with Jackson [3]. Jackson reported that Banting was eager and talented and took Banting on several physically ardu-

ous and artistically inspiring painting trips to Canada's far north [4]. Banting also began carrying sketchbooks everywhere, eventually producing many hundreds of drawings (see Fig. 1) and over 250 paintings [5]. According to Jackson, this hard work taught Banting that, like scientists, "Artists did research work, too. He began to see a kinship between scientists and artists" [6].

Through the 1930s, painting remained serious recreation for Banting. As he became ever more enamored with it, Jackson began joshing him about giving up his science to become an artist. Banting surprised him by replying, "When I'm fifty, that's what I intend to do" [7]. Unfortunately, Banting never had the chance. He died in a plane crash on 13 January 1941, while on the way to England to help in the war effort. He was 49.

Fig. 1. Frederick Banting, pen-and-ink drawings of Russian mountains, 1935. From an exhibition of sketches at Hart House, University of Toronto, March 1943. Reproduced with the permission of the New Tecumseth Public Library, Canada [8].



References

1. Seale Harris, *Banting's Miracle: The Story of the Discoverer of Insulin* (Philadelphia: J.B. Lippincott, 1946) pp. 6–10.
2. Michael Bliss, *The Discovery of Insulin* (Chicago: University of Chicago Press, 1982).
3. A.Y. Jackson, *A Painter's Country: The Autobiography of A.Y. Jackson* (Toronto: Clarke, Irwin, 1958).
4. Grant M. Maltman, "Goodbye to Civilization: An Arctic Escape with A.Y. Jackson," *Families* 36, No. 3, 173–182 (1997).
5. A.Y. Jackson, *Banting as an Artist* (Boston: Bruce Humphries, 1943), appendix; see also <http://newtecumseth.library.on.ca/banting/main.html>.
6. Jackson [5] p. 11.
7. Jackson [5] p. 15.
8. <www.newtecumseth.library.on.ca/banting/database/000121a.html>.

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