

# Art in Science

## Art in Science: The Artist's View of Orthopaedic Surgeries

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From the Column Editors,

**B**arbara Hepworth was a leading British artist and sculptor of the 20th century. Born in Wakefield, United Kingdom in 1903, she attended the Leeds School of Art, and later moved to St. Ives in Cornwall where in the 1920s she was a formative influence on the growth and development of this modern artist colony. Hepworth was attracted to the lush landscape, the weathered rocky coastline, and the natural formations created by the ocean. The organic shapes of polished bones, rocks, and

driftwood became an early source of inspiration for the abstract forms and attention to negative space characteristic of her sculptures. She was a major influence on the British interest in twentieth-century abstraction.

Drawing was an important means of exploring the forms that influenced Hepworth's practice as a sculptor. She was long an admirer of the skilled craftsmanship of the surgeon and the rhythmic movements of their hands during procedures. Hepworth was a skilled draughtsperson, defined as someone who creates technical

drawings. In her collection, The Hospital Drawings, Hepworth brought together her talents as a keen observer of detail, her fascination with surgical skills and tools, and her remarkable ability to illustrate what she saw and how she felt.

– Linda and Gary Friedlaender

Barbara Hepworth (1903–1975) is considered one of England's most well-known abstract artists and sculptors (Fig. 1). As an abstract artist, even when painting representationally, Hepworth focused on the basic underlying structures of her subject's actions rather than the entire pictorial scene.

In 1944, Hepworth's daughter, Sarah, was hospitalized and treated for osteomyelitis of the thigh. Doctors immobilized Sarah with plaster of paris. Already a renowned sculptor, Hepworth watched the molding of plaster jackets and became fascinated by its swift shaping and forming. She found similarities between the shaping and forming of plaster of Paris and her own work sculptor [1].

Hepworth discovered that Norman Capener, the surgeon who treated Sarah, was also an artist and a friendship quickly developed [1]. Capener visited Hepworth at her home in St. Ives where she taught him how to

Note from the Editor-in-Chief:

I am pleased to introduce our latest Art in Science column, written by Ahmadreza Afshar MD and Neda Afshar MSN. Dr. Afshar is an orthopaedic surgeon with admittedly little artistic experience. Yet, after watching a documentary that highlighted the works of renowned British artist and sculptor Barbara Hepworth, he set out to learn more about her life, her art, and her connection with orthopaedics. In this column, Ahmadreza and Neda Afshar share their observations from a fascinating vantage point: The interface of art and medicine.

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carve. He reciprocated by inviting Hepworth to his operating theatre to observe orthopaedic procedures [3]. Hepworth, armed with a small notebook and a pen, first attended a reconstruction of a hip. She trained herself to note important moments as she sketched—from the preparations of the nursing staff and surgeons (Fig. 2)—to the actual operation. Reconstructive surgery was her favorite subject and her hospital drawings were inspired from the reconstructive works. She created the paintings when she returned to her studio, producing approximately 80 graphic works and sketches of surgeons during operation between 1947 and 1949. These works are contained in her collection, *The Hospital Drawings* [1], and her artwork has been shown in galleries, exhibitions, and museums.

In *The Hospital Drawings*, the faces of surgeons and nurses are hidden behind surgical masks. Hepworth only focused on the surgeons and their actions, ignoring the details in the background. As such, the hands and eyes are the two most salient elements of the sketches; there is no blood. The drawings evoke a sense of benevolence—the subjects appear holy and priest-like (Fig. 3).

Speaking in a lecture to an audience of surgeons in the late 1950s, Hepworth expressed that she was enriched by the visual and spiritual impact of the scenes



**Fig. 1** Barbara Hepworth is widely considered one of the most influential sculptors and artists of the 20<sup>th</sup> Century. ©Bowness, Hepworth Estate.

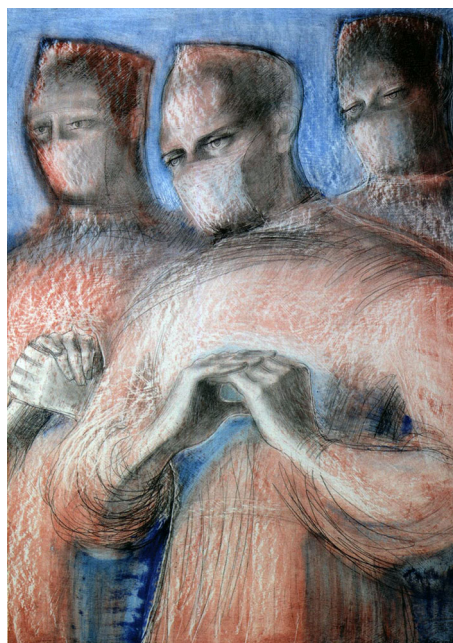


**Fig. 2** Hepworth sketched the nurses and surgeons as they prepared for surgery. *Preparation 1949*. ©Bowness, Hepworth Estate.

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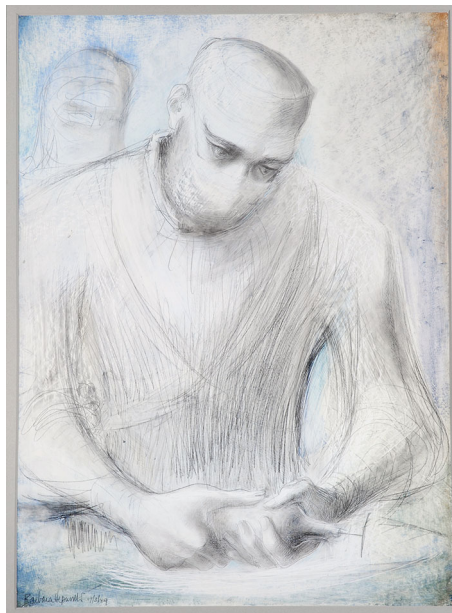
in the operating theatres (Fig. 4). She was fascinated by a small group of concentrated people working for a special purpose. She continued: “There is, it seems to me, a very close affinity between the work and approach both of physicians and surgeons, and painters and sculptors. In both professions we have a vocation and we cannot escape the consequences of it. The medical profession, as a whole, seeks to restore and to maintain the beauty and grace of the human mind and body; and, it seems to me, whatever illness a doctor sees before him, he never loses sight of the ideal, or state of perfection, of the human mind and body and spirit towards which he is working” [2].

One can recognize Hepworth’s captivation for the surgical team through her work. Her surgeons look engaged, ready to react to each other’s movements.



**Fig. 3** Hepworth’s sketches evoke a sense of compassion. The subjects appear divine. *Skiagram* 1949. ©Bowness, Hepworth Estate.

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**Fig. 4** Hepworth focused on the actions of the surgeon, ignoring the details in the background. *Tibia Graft*. ©Bowness, Hepworth Estate. Republished with permission from Hepworth Wakefield.

While watching the surgical teams, Hepworth discovered a beauty that was spiritually affirmative. The surgeons' hands (Fig. 5) directed toward the center of the surgical field surround the unseen patient like the spokes of a wheel [1].

Hepworth demonstrated the basic principles of abstract compositions (rhythm, poise, equilibrium, coordination, and harmony), even when drawing representationally, as she does in *The Hospital Drawings* [1].

From this work, we learn how to better observe and perceive the beauty of our surroundings. We learn to work harder and strengthen our desires for higher values to enrich our life and career.

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**Fig. 5** The hands of the nurses and surgeons are a striking component of Hepworth's sketches. *Concentration of Hands II*. 1948. ©Bowness, Hepworth Estate. Image courtesy of Hazlitt Holland-Hibbert.

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