Arthur E. Guedel Memorial Anesthesia Center

Paluel J. Flagg and the "Art" of Anesthesia

By Merlin D. Larson, M.D.

Titles of anesthesia textbooks were more creative 50 years ago. Consider the original and unique title of Wesley Bourne's book *Mysterious Waters to Guard: Essays on Anesthesia* (1958). The title summarizes what we do. Paluel J. Flagg (Figure 1) wrote seven books on anesthesia between the years 1919 and 1944, all entitled **The Art of Anaesthesia**. Although copyright laws protect the contents of Flagg's books, his unique title could have been copied by other authors. However, no one has repeated any title that uses the word "art" as a feature of anesthesia.

Figure 1: Paluel J. Flagg with his specially designed laryngoscope and straight endotracheal tube (1944).

Using the word "art" in this context suggests that Flagg might have had a unique perspective on our specialty, one that might provide some insight into our profession. There are several letters from Flagg in the Guedel museum and he wrote extensively in the current journals of his day. I reviewed these letters, books, and manuscripts in order to define his choice of this unique title. Is it possible that he was pointing to something that we are missing today?

Although very little attention is paid to Flagg in standard accounts of anesthesia history, he was an innovator and contributed significantly to the advance of the specialty. Flagg devised the first laryngoscope with batteries in the handle. The "Flagg Can" (Figure 2) was used extensively in the Spanish Civil War. He was interested in treatments for asphyxia and founded an organization called the Society for the Prevention of Asphyxial Death (he asked Arthur Guedel to be on the Board of Directors, but Guedel was not interested). Flagg's letterhead identified him as a "Pneumatologist" instead of an anesthesiologist because he thought the latter term limited his scope of practice to the operating theatre. He thought any specialist was a physician first and one trained in a special field second, and that "the physician was more important than the specialty in which he practiced." Flagg fought tirelessly for a practice that was independent from control by his surgical colleagues.

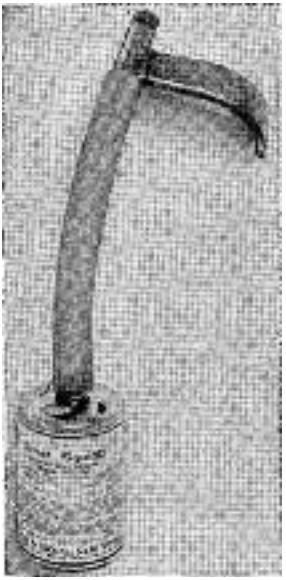


Figure 2: The "Flagg Can" was an ether can connected by a rubber hose to a metal oral airway. The patient was induced with ether dropped onto a folded towel, and then the airway was inserted to continue the anesthetic.

Flagg stated in the preface to his books: "… to give an anesthetic is one thing, to practice the Art of Anesthesia is another." He repeatedly emphasized that

proper administration of anesthetics is not just a technical skill but is an "art" obtained through study and experience. In an editorial (August 1941) entitled "Anesthesia as an Art," he proposed that skill alone could not enable one to achieve excellence in anesthesia (Figure 3). Only the anesthesiologist who understood the unique physiology of each patient and adjusted the anesthetic to the changing stimulus of each surgical procedure could provide a true "artistic" anesthetic.

In order to affirm that Flagg's notion has any merit at all, it is important to examine the differences between technical skill and art. Are we skilled craft-persons or are we, or can we be, artists in any true sense of the word?

The distinction may seem trivial, but there are implications to the differences between artists and craft-persons. As a society, we consider artists with more respect than we give to those who practice a craft—and we render a higher monetary value for artistic products compared to crafts. For example, the Navaho woman who weaves a blanket for her children's use in the home is thought of as a crafts-person and is not revered by society on the same level as the Navaho "master-artist" who weaves (similar) Navaho wall hangings for sale in a Taos art studio (at comparatively inflated prices). Some skilled crafts-persons have succeeded in convincing the public that they are artists and consequently they are highly paid for their product. Artists such as painters, sculptors, musicians, actors, and composers come to mind. Can we be considered in that same company, as Flagg has suggested?

The word "craft" stems from the Old English word "*craeft,*" meaning strength or skill, and implies a manual activity that can be learned from more experienced persons to repeatedly produce something useful. A tangible product is not required … a skilled electrician can be considered a craft-person just like one who weaves placemats for sale at craft shows.

Machines can reproduce most crafts, and the item then ceases to be a craft and becomes a machine-made item. In other words, if we are truly crafts-persons, then the idea of a robot or a machine taking over our role is entirely possible. Indeed, the introduction of machines like the SEDASYS™ (manufactured by Ethicon Endo-Surgery, Inc.) may be just the beginning of this process whereby *attempts* are made to replace our services with computers.

Art, on the other hand, implies creation. This creation is made by one individual and the final product is usually considered beautiful. It is unique in character and *cannot be reproduced by a machine or a technician.*

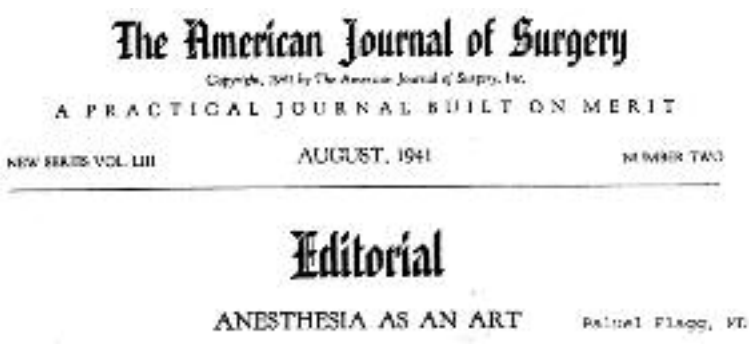
Art implies an audience that can appreciate and feel the artist's intent. The product emotionally "moves" the audience. The artist has full command of his or her chosen medium and creates something that transcends a purely technical rendition. For example, Bach's *Goldberg Variations* played by a computer are perceived as a totally lifeless collection of notes, but artists like Glenn Gould could interpret these notes and create an emotional response.

The idea of creating a beautiful product is not foreign to our practice. We often use the terms "a beautiful emergence," "a beautiful block," or "a beautiful anesthetic." After working for several years, many practitioners of anesthesiology develop unique approaches to the management of certain cases. These individuals may not admit it, but they often silently consider their techniques to be slightly better than the techniques of their partners working in adjacent operating rooms. In short, they have developed an "art" that they believe in, and their singular approach to each case provides them motivation to get up in the morning. This is actually the rudimentary beginning of "art" as applied to anesthesia because the motivation is to create a pleasant and beautiful anesthetic for each patient.

Thus it seems possible for us to consider our work "artistic" in the true sense of the word. We are actively creating a product each time we administer an anesthetic, similar in some ways to playing a musical instrument.

The main missing ingredient in the definition is an audience. Who observes our work and is emotionally moved by it? This is not a disparaging remark, but our audience is not the surgeons, who are rarely present for the emergence and almost non-existent in the PACU. Surgeons appreciate other forms of art. This is not novel: art objects have selective audiences—some can appreciate a Pablo Picasso painting but might not be at all affected by listening to the 24 Piano Preludes and Fugues of Dmitri Shostakovich. The obvious audience would be our partners, but they are in other rooms creating their own "artistic" products. Patients usually have no basis to compare their current experience with other anesthetics because the operative procedure is rarely the same. This leaves us alone as the creator—and the sole member of the audience.

Flagg was wrong about one important item. He was openly critical of new anesthetic agents and "fancy" anesthetic machines. He thought that science in anesthesia had its role to play, but it too often interfered with a skillful rendition of an "artistic" anesthetic. For example, he thought that anesthetic records interfered with the ability of the anesthesiologist to continually gauge the patient's responses to drugs and surgical manipulations.



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Editorial

ANESTHESIA AS AN ART Paluel Flagg, VT.

Figure 3: Paluel Flagg kept his concept of art as a component of anesthetic practice alive for over 30 years. This image shows the title of an editorial he wrote on the subject in the *American Journal of Surgery* in 1941.

From our perspective, Flagg's anesthetic seems pathetically inartistic: mask ether inductions, intubation of the trachea under deep anesthesia, use of straight endotracheal catheters without cuffs, spontaneous respirations, no use of muscle relaxants, and intramuscular morphine for pain. For the patient, this must have been a horrific experience. Contrast that with today's anesthetic wherein the practitioner has some ability to manage nausea and vomiting, control postoperative pain, and promote an early recovery.

Even today, our science and art are still rudimentary. Although we might hope to tailor our drug administrations to each individual patient and manage the stresses placed upon them, we often fail because we lack information about how each person will react to drugs and surgery. What is hoped to be "artistic" then becomes routine and trivial. No problem there—many artists strive to make true art, but end up making insignificant products (after all, several of Shostakovich's Preludes are duds). Perhaps after another 50 years of research and study, we can again review Flagg's ideas and with our newfound knowledge, each anesthetic will become a true artistic masterpiece.

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