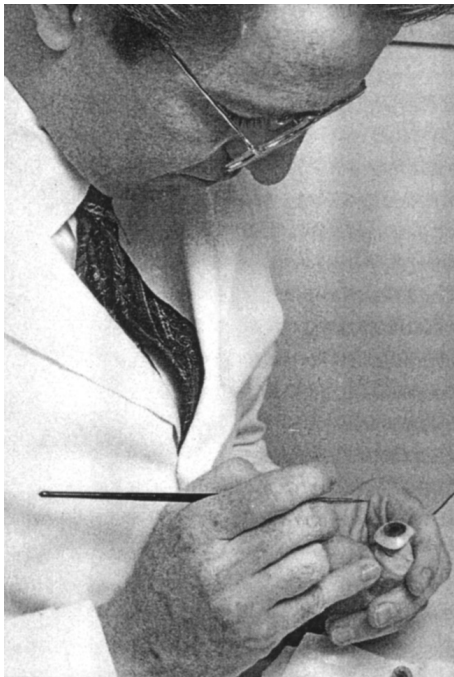


# Blending Art with Science for the Benefit of Patients

To the uninitiated, Michael Hughes' Restoration Clinic looks more like horror prop shop than a place where art and science join to replace what war – time trauma or disease has taken away. After all, there is the box of artificial eyes, looking as lifelike as nature's own. And then there is the glass cabinet with eerie facial casts, from which Hughes builds noses or ears, usually to replace those lost to cancer. But if you look past the ghoulishness of the first impression, you will see that Hughes' clinic is the business of bringing peo-



*Michael Hughes puts the finishing touch on an artificial eye.*

ple back to life by giving them back a normal appearance.

“The goal of the patients is for them to look presentable. There’s no way you’re going to match perfectly. Nobody’s perfect. If you look at anybody long enough, you can find faults. Some of these cases are really difficult,” Hughes said, “But within conversational distance, they’ll look nice.”

Hughes is a trained Ocularist, with a degree in fine arts and prosthetic design, and 10 years experience. He

has been chief of the Restoration Clinic at the Washington D.C., VA Medical Center since October. The clinic is one of 11 in the country run by VA.

Hughes spends most of his time making artificial eyes. Each month, he makes about 15 eyes from special hard acrylic, while the body parts, made from flexible, skin – colored rubber, are needed less often.

“I try to get them to look respectable. Most patients are real happy with what I do. They jokingly say they’re not winning any beauty pageants, anyway,” he said.

The process of making artificial eyes starts with an impression of the eye socket, in order to get the size, shape and depth of the original eyeball. A wax cast is made of the impression, then with a steady hand and an artist’s eye, Hughes hand – paints the iris on a curved plastic lens. The color variations between people, and the variety of colors in any single iris are enormous. Brown eyes are easiest to do, with variegated blue and green eyes the most challenging, he said. He uses lacquer and oil paints in 12 basic colors including raw sienna, charcoal, burnt umber and ultra blue – like the most exotic hues from the jumbo crayon box.

Wielding a fine sable brush, he duplicates the iris color using quick strokes outward like spokes on a wheel, over and over, blowing on the paint between coats to make it dry quicker, and rapidly mixing different hues as he works. Amazing, Hughes needs only to look at a patient’s eye once or twice during the process. In five minutes, he’s holding his painted eye and comparing it to one of the originals.

“People have this version of a glass eye and it looks awful, but you can get really nice color matches,” he said. “Everybody’s different. Everyone’s eyes vary. The fact that everybody’s different gives me a lot of room to try something new.”

After the iris is done, the whole

eye is processed in white acrylic and backed for an hour. Later, after trimming and polishing the eye, blood vessels are made using red embroidery thread. Finally, the entire front surface is covered with clear acrylic and smoothed and polished. The eye can then be inserted into the socket, where it’s held in place by suction. The artificial eyes are so sturdy, they can only be broken with a hammer.

The patients wear the artificial eyes all the time, even while sleeping swimming. They do need to visit Hughes about every six months for cleaning and polishing.

A patient needing an artificial eye comes into the clinic in the morning, and will leave with the new eye by the end of the day. Making facial parts, though, is somewhat trickier and may take more than one day.

Although the process of making the prostheses seems the most difficult part of the job, Hughes said dealing with the patient’s loss is actually the most troublesome. Even World War II veterans who have artificial eyes for the past 40 years still find the loss painful. For those who have recently lost an eye, or who have major facial surgery to arrest a cancer, the trauma is fresh.

“For some of them, coming to the clinic brings up bad memories. Usually when you’re talking, they’ll venture into how they lost their eyes. For some of them, it’s the worst thing that has ever happened in their lives,” he said. “You have to like working with people. The most gratifying aspect of my job is seeing the veteran happy.”

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