

This Chicago Company is Making Faster Soldiers and Calmer Hospitals With A new Kind of Art



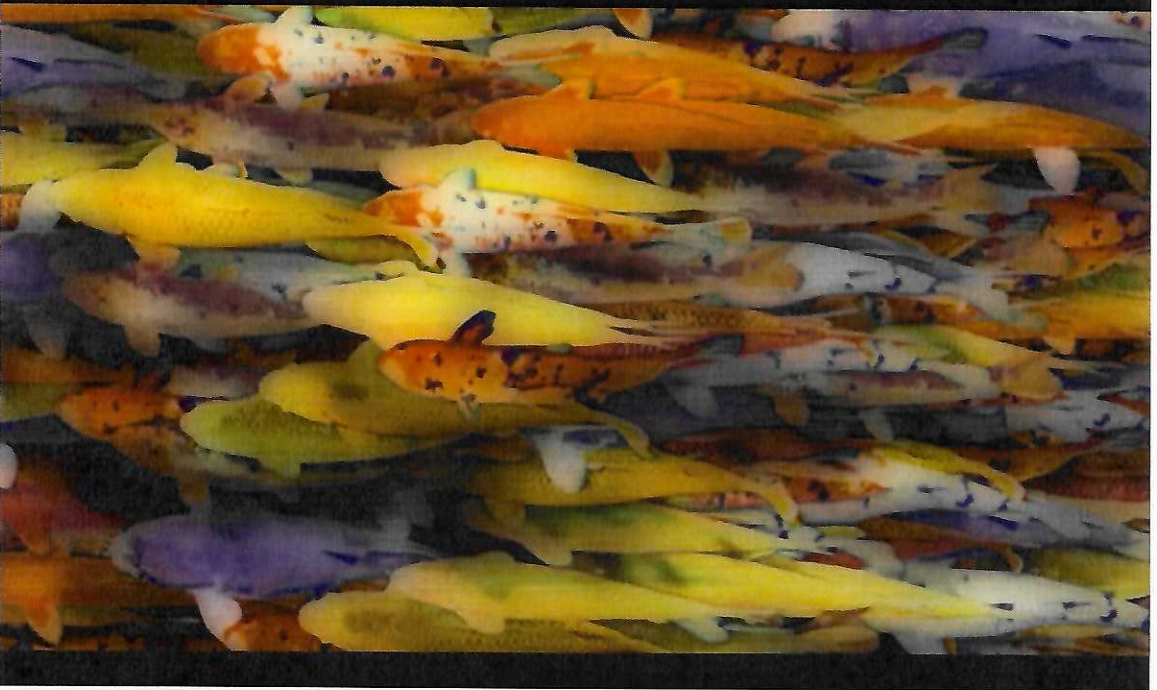
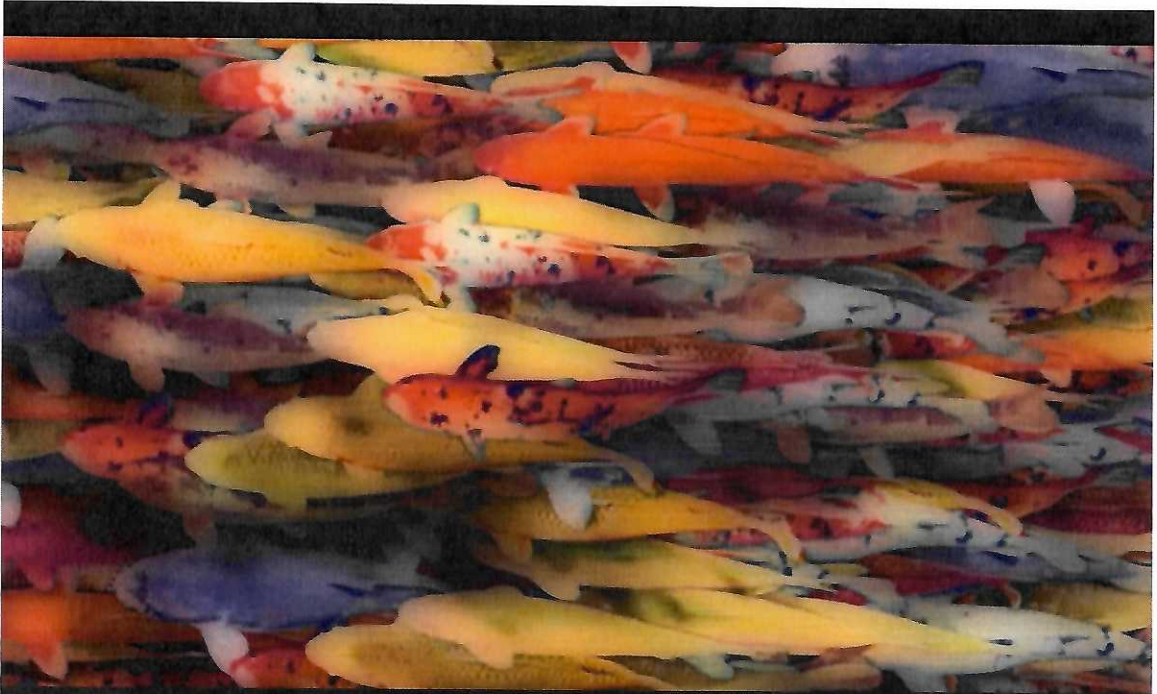
Doug Siefken©

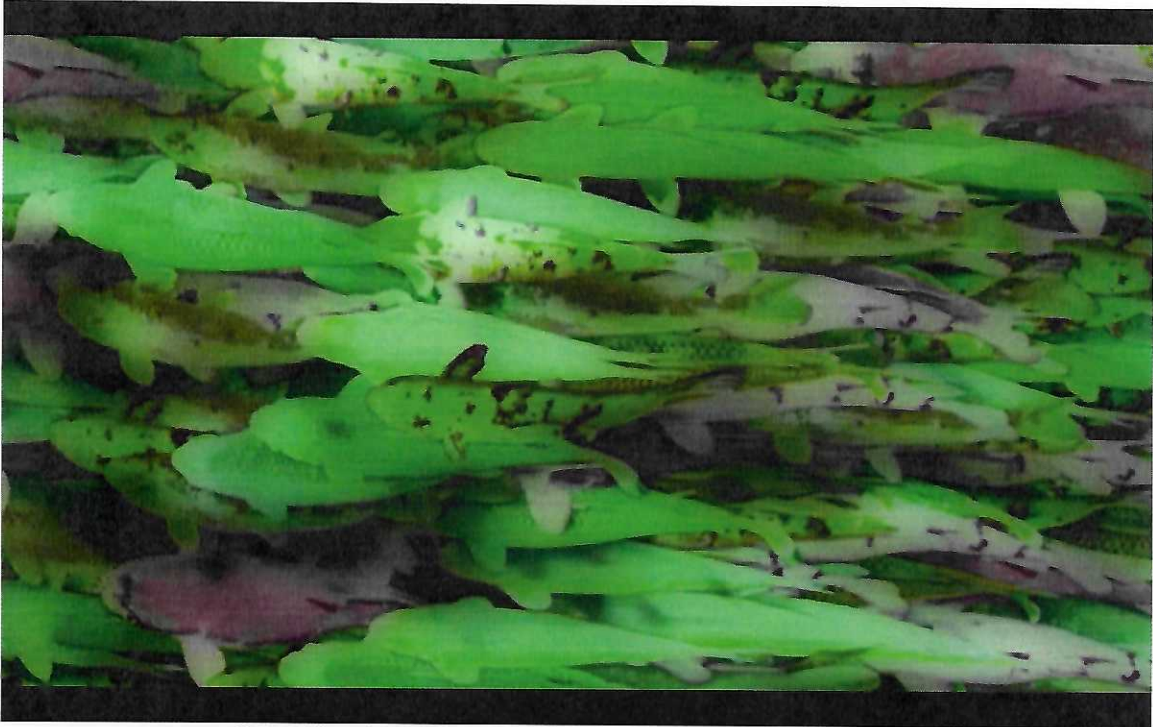
Translumen Technologies is changing the way we think about art. The thing about the change is you can't see it, and that's exactly the way the folks at Translumen Technologies want it. They call their new form of art, **Fluid stills** and they exist in their own world between static images and video.

<https://www.flickr.com/photos/siefken/2511957748/in/photolist-57gnZ7-58wJsy-4PYrwm-5aCCGE-56nABF-4YY92p-5aFzEa-64Szk2-58xQdn-54uKT8-4TmwAy-51NUoy-9uohT2-9y9XcX-ajf2tz-9uMU9k-9pshDt-5bayG3-4CVAHK-9oYSaU-6wu68i-545Jmh-9o2m4c-9o5vP7-5d9UTB-51qUGY-59SL1r-6L8UKZ-51xiJM-54SsXT-5aUjq1-4QKTog-9rqi4T-5fBro9-4RsF8o-4CZNut-51rbfc-8PLgMs-53ZJu9-58uLra-53W8vi-4DqFy5-4CZNmD-4D53Tm-53QeKG-4DmTsa-4CZNpH-4CZNep>

Fluid stills typically change over a period of hours. This example shows the change over 90 seconds.

When viewed, Fluid stills appear to be static images, but turn your attention from the screen for a while and when you look back the image will have morphed into something new. Fluid stills are no simple screensavers. You can stare at them as long as you like but even though the image is in constant fluctuation the change is so minutely incremental that you can't detect the change happening.





Screenshots from different points in the Fluid still highlight the Change.
Doug Siefken©

In the early 1990s, Translumen sought to use their Fluid stills technology as a means of creating art in public spaces. **Doug Siefken** artist and creator of the algorithm that makes Fluid stills work, described his goal of a public art piece that would be 23 and a half hours long. *"If someone walks past it everyday at the same time, like on their way to work, then everyday they would see a different piece of art,"* Siefken said.

But early 1990's screen technology wasn't equal to the task. **Carol Sherman**, President of Translumen Technologies, said, *"We looked at what affects it would have on screens. It was mostly plasma screens at the time and image burning was a concern. We tested them to see if Fluid stills would burn but the real problem turned out to be that screens were expensive and there just weren't enough of them. So, we started exploring other sectors for the technology."*

One of those areas was in military training. The underlying technology in fluid stills is called **STEGC** (Pronounced Steg-C) and stands for SubThreshold Extreme Gradual Change. Translumen Technologies found that STEGC embedded into a video could improve the observational skills of the viewer.

The way it works is a video begins with a still image that is largely obscured by a white screen. Then over the course of a minute or two the image becomes clearer as the white screen fades away without any individually perceptible jump in clarity. The viewer's goal is to identify anomalies in the image as fast as possible, a sniper hiding in tall grass for example. According to the Naval Research Laboratory, people who practiced their observational skills using STEGC training increased their threat detection time by as much as 20%.

You can try it yourself in the embedded video below. See how long it takes you to spot the tiger in the image on the left and the sniper in the image on the right.

<https://www.youtube.com/watch?v=EufI-C0IyoA>

The other area Translumen is experimenting with their art is in hospitals. Originally, the installations of the fluid stills were intended to serve their artistic purpose, but once there other benefits soon became apparent.

"We've been testing the technology in a major hospital system," Sherman said, "and caregivers have found that it's had an incredibly calming affect on distressed patients and the elderly in particular."

Sherman added that the calming benefits wouldn't have to be limited to patients, that fluid stills could be placed in waiting areas, and lobbies, anywhere people could be spending a lot of time under stress without much to do about it.

"Another way this technology will be useful in hospitals," Sherman went on to say, "is by providing light in patients' rooms at night while caregivers are working. Rather than having to switch on an overhead light when caregivers come in, these fluid stills can be running while the patients are sleeping and they can provide enough light for caregivers to do what they need to do without disturbing the patient."

Having seen the affects of the technology in hospital settings, Sherman explained that it's potential for use in hospices for end of life care. Since fluid stills can be created from any kind of image, it wouldn't be difficult to create unique pieces for each patient, featuring images from their home. Rather than being in sterile, and foreign environment, patients could have something of the familiar with them.

Now that the necessary screen technology is sufficiently abundant Translumen Technologies is working to put their unique form of art in front of as many eyes as possible.