

# 1<sup>st</sup> Computer-Generated Origami in... 1971!

by Laura Rozenberg

It was one of those days. I was wandering the Internet, not paying much attention to anything in particular, when I stumbled across a story in Nick Robinson's blog. It was an entry written by John Smith that included a citation from an Eric Kenneway's story that had been published many years ago in the BOS magazine. It read: "*The first known attempt at designing origami by computer took place in the United States in 1971. Arthur Appel, under the direction of the IBM World Trade Corporation's art director, Bob Salpeter, programmed an IBM System 360 Model 91 computer to print out simple geometric configurations at the rate of more than one hundred a minute. Ninety percent were considered unsuccessful, but the remainder were folded on a large scale by Yokio Kono and displayed in the windows of the company's headquarters at United Nations Plaza, New York.*"

Intrigued by this story, I googled the name of Bob Salpeter and found his business website. At 82, he is the head of Salpeter Ventura, a graphic design firm in Manhattan. It didn't take long until I received his kind to answers my questions. He even provided the picture for this story.

I was impressed by what he considered "success". The IBM guys didn't care about the rate at which the machine would spit a foldable pattern. They just were looking for a good looking model! So beauty was the only parameter they contemplated when they looked at the patterns that the assistant artist had folded.

**What was your position at IBM? How old were you and what has been your career path so far?**

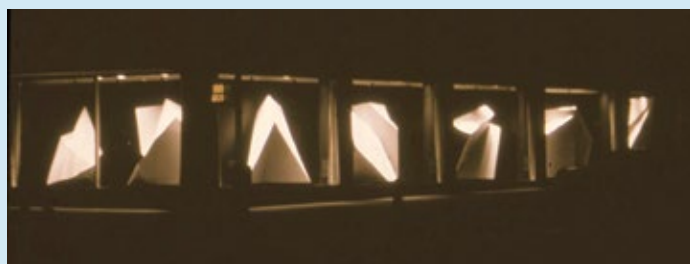
I was 35 years old, and my position was Art Director at IBM World Trade Corporation, which was the wholly owned subsidiary of IBM that conducted IBM's business outside of the US. Now it is all done under the IBM Corp. Arthur Appel was an IBM computer scientist at the IBM Yorktown Lab. After IBM, I went into business in graphic design.

**What was the "origami" project and who had the idea? Why origami?**

I had the idea. One of my responsibilities was creating window displays at the IBM World Trade Corporation building at 46th Street and First Avenue, and because IBM had 90 percent of the computer market at the time, it was being sued for anti-trust. I could not do windows that advertised computers, so I had to come up with ideas that were interesting about computers without marketing them. Origami was an interesting non-marketing use of the computer. Another window in the series was the story of numbers.

**What type of computers were you using? Do you know the algorithm applied?**

IBM system 360, model 91. I don't know the algorithm. Arthur Appel wrote it.



Computer-generated origami artwork displayed in the IBM windows at the UN Plaza building (46<sup>th</sup> Street and First Avenue, Manhattan). Photo courtesy of Bob Salpeter.

**It seems the rate of success was low. Was it considered low at that time or acceptable?**

Acceptable because rate of success was not important for this project.

**How "success" was measured?**

Success was measured by the aesthetic result after the origami was folded.

**Did you come out with crease patterns? Something that could be foldable or non-foldable? If it was a non-foldable pattern, how did you know that it would be impossible to fold? In other words, what is a non-foldable sheet?**

It was foldable according to paper printed with lines that indicated how the folds would be. I folded over 100 of them and picked the most aesthetically pleasing for the window display. **Of those patterns that were considered successful, you engaged artist Yokio Ono to fold them. Who was he?**

We hired Yokio Ono to construct the 8 foot renditions for the window display. I don't remember much about him but he did an excellent job.

**What floor were you on and was that the building where the Turkish mission to the UN is today?**

Yes, before the Turkish mission moved in, IBM World Trade Corporation occupied the entire building. I was on the 6<sup>th</sup> floor.

**How many days/nights was the origami displayed in the windows? How many objects did you display?**

Seven objects, it stayed four months.

**Did you get any comments from passersby or from the press or IBM directors?**

It was well received.

**Did you find that the project could lead to certain applications in the industry?**

The basic concept was to have an engrossing window display and not to market computers, programs or industry applications. 📄