On view now through July 15, 2018 at the Cultural Programs of the National Academy of Sciences is "Process, Chance, and Serendipity: Art That Makes Itself," a solo exhibition by computer and generative art pioneer Paul Brown. Interested in the autonomous emergence of art from the execution of unique computer algorithms, Brown began this type of work in the late 1960s, building off of the platform for art and technology interaction created by the E.A.T. movement.

Above: After reading Anton Ehrenzweig’s *The Hidden Order of Art*, Paul Brown wanted to create a content and context free system or process to make something that looked intriguing. He rotated an octagonal tile and placed it in a 12 x 8 matrix. Brown calculated the rotations by thumbing through Ehrenzweig’s book and using the last digit of the page number where he randomly stopped. During the same year, Brown visited the Cybernetic Serendipity exhibition in London and was profoundly influenced by many of the works on show. He subsequently studied symbolic logic and George Spencer-Brown’s Laws of Form and began to investigate how he could employ logical and digital systems in his own work.

Above: This 8 x 6 matrix work is populated using a single tile that employs both rotational and reflected symmetry. The flowing black forms that emerge are strongly reminiscent of the movement of gymnasts or dancers wearing leotards and implicitly
reference past artists like Degas and Rodin. Brown was influenced by the dancer and choreographer Bill Harpe and they worked closely together when he was artist-in-residence at the Black-e (the Great Georges Community Cultural Centre in Liverpool, England that Harpe founded) in the late 1960s. Harpe encouraged his engagement with the serendipity of emergence using random and chance procedures and also gave him the opportunity to develop his practice using new media formats like video.

Top image "Swimming Pool": Early in his career, Brown rejected naming his artworks, preferring to draw attention to their concrete forms. It was a popular approach in the modernist 1960s when his professional practice matured. In the 1990s, his attitude changed. He became interested in the way forms and colors that emerged in his artwork affected how spectators interpreted them. Since the 1990s, many of his works have investigated this phenomenon. The interlocking sinusoidal shapes that emerge from this matrix containing variations on three tiles reminded him of the swimming pool paintings by artist David Hockney. Several of his works from this period pay homage to other artist’s work – Leonardo da Vinci and Vincent van Gogh are examples – and consolidate his modernist belief that he is working in the traditions of art and not, as some of the younger generation of post-modern artists believe, doing something completely new and a-historical.

Learn more about the exhibit HERE