Daniela Sirbu

Artwork/ Installation: **An Abstract Constructor of Visual Dynamics**

Topic: Interactive Art

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References:
[1] Arnheim, Rudolf. 1974. *Art and Visual Perception*. Los Angeles, CA: University of California Press.
[2] Reas, Casey and Ben Fry. 2007. *Processing. A Programming Handbook for Visual Designers.* Cambridge, MA: MIT Press.
[3] Shiffman, Daniel. 2012. *The Nature of Code: Simulating Natural Systems with Processing*. The Nature of Code 1st ed.

Abstract:
Based on a simple geometric module, the Abstract Constructor explores the pictorial space interacting with the hidden perceptual field of the framework and builds new self-generating structures from transparent traces left along its own paths.

The movements of the Abstract Constructor blend layers of continuous, but random paths, which are occasionally fractured by jumps geared towards several attractors in the visual field. The path fractures can be auto generated or can be initiated through interactions with the viewer.

As the Abstract Constructor moves within the visual field and repeatedly revisits its previous paths, the older paths are covered by newer layers of transparent traces creating a sense of depth.

The latest visited attractors create dominant centres of interest in the composition through increased trace density with stronger contrasts of texture, light-dark, foreground-background, and colour.

This artwork/installation piece includes a series of nine printouts sampled from the Abstract Constructor's compositions and a digital diptych of active generative panels that allow the user to interact life with the Abstract Constructor.

Digital diptych with active Abstract Constructor panels (screenshot)

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Keywords: generative art, artificial creativity, processing.

An Abstract Constructor of Visual Dynamics

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Abstract

Based on a simple geometric module, the Abstract Constructor explores the pictorial space interacting with the hidden perceptual field of the framework and builds new self-generating structures from transparent traces left along its own paths.

Title: Wandering. Digital diptych with active Abstract Constructor panels (screenshots). Sampled from the Visual Random Walker, version 7-2.

The movements of the Abstract Constructor blend layers of continuous random paths, which are occasionally fractured by jumps directed towards several attractors in the visual field. The path fractures can be auto generated or can be initiated through interactions with the viewer. As the Abstract Constructor moves within the visual field and repeatedly revisits its previous paths, the older paths are covered by newer layers of transparent traces creating a sense of depth.

The latest visited attractors create dominant centres of interest in the composition through increased trace density with stronger contrasts of texture, light-dark, foreground-background, and colour.

This artwork/installation piece includes a series of nine digital printouts sampled from the Abstract Constructor's compositions and a digital diptych of active generative panels that allow the user to interact life with the Abstract Constructor
This *Wandering* digital diptych is an interactive version of the Visual Random Walker. The interaction allows a form of kinetic drawing with the system continuously building structures and the viewer interfering directly with the random walker to introduce colour accents, control the positioning of the seed for structure building, control the density and spread of the structures, or actively combine drawing with the structure generating as an intimate part of the drawing process. When no interactions take place, the system continues independently to develop structured visual designs.

Title: Wandering Constructor I. Composition series sampled from the Visual Random Walker, version 8-5. Unique digital prints – mounted.
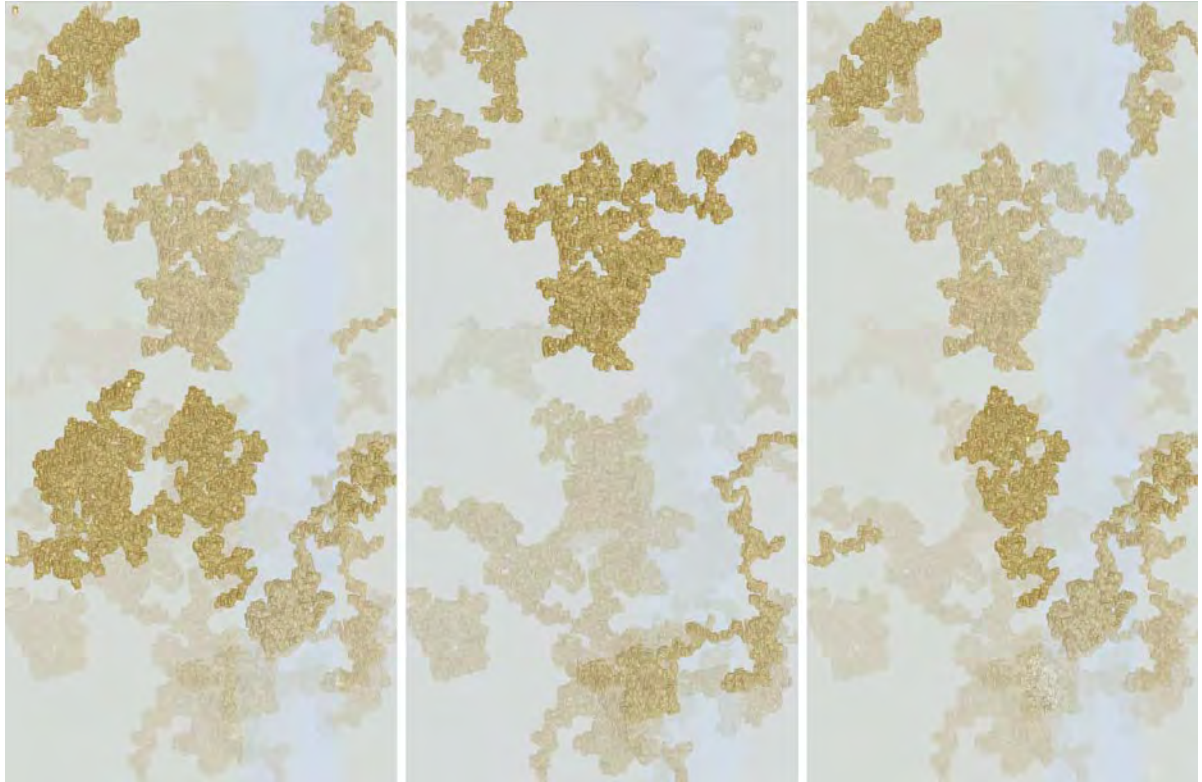
Title: Wandering Constructor II. Composition series sampled from the Visual Random Walker, version 8-6. Unique printouts. Unique digital prints – mounted.
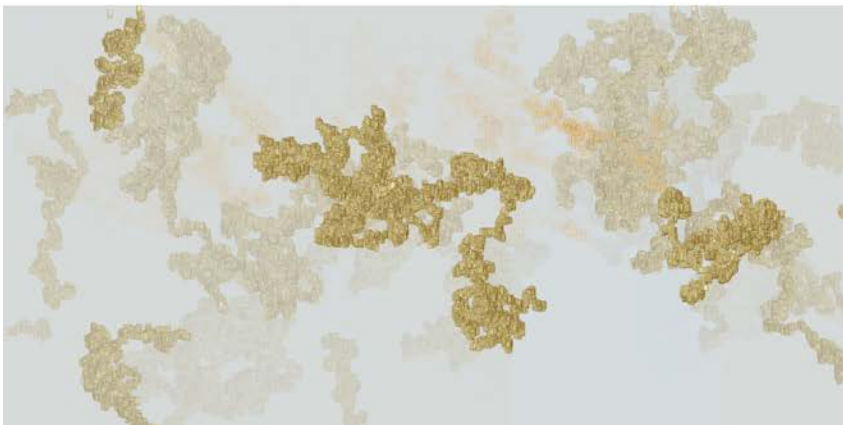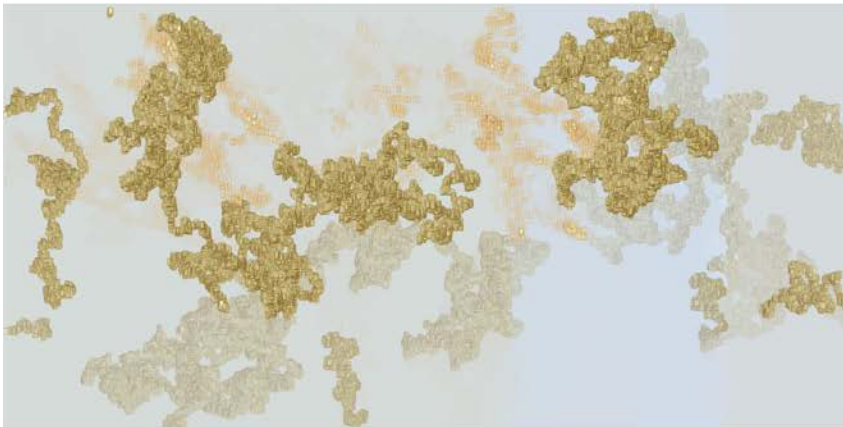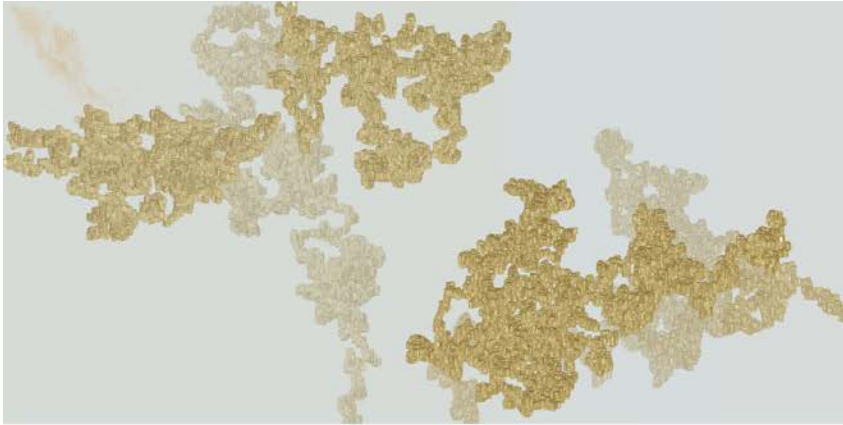
Title: Wandering Constructor III. Composition series from the Visual Random Walker, version 8-6. Unique digital prints – mounted.

1. References

[1] Arnheim, Rudolf. 1974. Art and Visual Perception. Los Angeles, CA: University of California Press.

[2] Reas, Casey and Ben Fry. 2007. Processing. A Programming Handbook for Visual Designers. Cambridge, MA: MIT Press.

[3] Shiffman, Daniel. 2012. The Nature of Code: Simulating Natural Systems with Processing. The Nature of Code 1st ed.