

- From the 1970s, I have been passionately engaged in making digital drawings in ink, graphite, and paper, using machines that I program, and at times build. My computer code is informed by geometry, mathematics, and physics, as well as by my taste for traditional drawing and modern art.
- More recently, I have explored the poetry of ephemeral traces and of transient happenings on surfaces of water or sand and have added associated sounds and/or lights with these drawings created by code or by sound.
- “*Ulysses*” (1998-2012), animated by Python code, draws and creates traces on sand left by a small ball that ploughs through the sand as if by magic. Each trace is ephemeral, erased by its successor. Collaborators: David Bothman, Victor diNovi.
- In a sonic presentation of this piece (2005), traces are accompanied in their progress by an aural component from Supercollider, composed and directed by the geometry of the trace (its position, direction, speed, etc...) Collaborator: Iannis Zannos.
- “*Chanting Water*” (2009) projects prerecorded sounds, transformed with max/msp. under a water-covered membrane. Given sufficient power, the sound energy sets the water in motion and creates networks of mobile, interfering wavelets. The illumination of the water then produces lively reflections and refractions (caustics) that animate the water and the environment. This happening is wholly transient. Collaborator: MarkDavid Hosale.
- In 2009, I conceived the idea of a light, transparent sculpture, luminous and active, a dodecahedron based on tensile principles (Kenneth Snelson & Buckminster

Fuller). This interrupted project should be completed in 2013-14. Collaborator: Jeremy Sarchet.

- Thus I am extremely fascinated by such drawing-time-sound-light-nature-ephemerality associations. Since I have for many years created conceptual and algorithmic drawings from code that I compose, the prospect of introducing more organic, less digital, means in my work is very attractive to me. I am also interested in a certain loss of control, an eruption of chance, a certain serendipity in the final result. Willful mathematical randomness and submission to the environment jostle my old logic that was based on a total control (*"One Hundred Views of the Metagon"*). There is a new pleasure in surprises.
- The *"Just Enough Chance"* (2006) and *"=ryoanji"* (2010) series, involve the introduction of chance, but chance within limits: tamed chance. I owe much to Iannis Zannos and to Cris Cooley who awakened my interest in John Cage's thinking and writings.
- The *"Wheel of Time"* (2009), *"Chronoscopes"* (2009), and *"Chronoptychs"* (2011) series, deal with time, calendar, seasons, earthly time, or astronomical time (solar system, Jupiter and Saturn moon systems).
- Beyond a poetics of abstract forms, palindromic drawings –i.e., mirrors à la Rorschach– (2003), are the recent drawings with text and text within drawings (2009), the insertion of text in drawings, and the first appearance of direct poetical, critical, philosophical, and political references.
- *"In Visible Cities"* is a book in publication (2009-2013) by Turkey Press & Edition Reese, Isla Vista CA (Harry Reese & Sandra Liddell Reese). I have written software

that transformed an original Calvino text into a recursive suite of *mesostics*. The process programmatically extracts text elements from the English translation by William Weaver of Italo Calvino's "*Invisible Cities*", and reassembles them into mesostics. The poems's illustrations are based on my "*Wheel of Time*" series, animated by the rhythms of the original text. Printing combines ink jet and letter press, using Gill Sans and Niyodo natural paper.

- Fascinating to me is the haphazardness of sand and waves, as well as the dynamics of particles and fluids, of stars and galaxies, and simply the nature and behavior of natural elements as they are captivating, surprising, and alive. Hence my interest in sand, water, waves, light, reflections, refractions, sounds, breezes. And ephemerality has become essential to my very understanding of spirituality, poetry, life, and nature.
- Earth (sand), fire (light), water, and air (sound and breeze) are the classic elements of ancient Greece, and of the Tibetan prayer flags. How the ether will manifest itself in my work is not yet clear –unless we assume that this is all beyond the clouds, space, and the entire cosmos. Here again are physics and mathematics for those who seek a deeper understanding beyond the first glance.
- "*Breeze Drawings*" (2011) is a series of drawings traced by a structure animated by the breeze. The simple organic structure (bamboo and strings) is based on tensegrity principles. It is flexible, springy, and its motion in the vagaries of the breeze (chance) drives a pendulum that marks the surface of the paper. The displacing marker itself can be controlled to a degree by a program –also adaptive and organic– composed with stones, pebbles, twigs, or wood blocks placed on the

paper. The lines it drafts are light and very lively. "*Le dessin est beau si la ligne est vivante*" (Jean Cocteau). For these new experiments I modified a sculpture maquette built by Jeremy Sarchet. A dedicated tensegrity structure has been completed by Jeremy, improved by an adjustable flexibility and the ability to draw in light or stronger winds.

- One can imagine such breeze drawings traced over sand, with sensors capturing the motions of the structure to record, transmit, amplify, sonify, and illuminate. The sounds could be synthetic but also prerecorded in nature and associated in their production to the evolving geometry of the drawing space.
- "*Narcissus*" has been such a project, based on a flexible tensile structure reflected in a pool of water. The reflections animate an aural track of swallows flying and chirping as they fly around a tower, recorded live in Corfu.
- This outlines a new, open exploration, a circle whose center is everywhere and circumference nowhere. This an appropriate reminder of Cage's *Conference on Nothing*, where it is stated that we are getting nowhere, and that is a pleasure.