Sensing the earthquake

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Making science visual plays a crucial role in the process of building knowledge. In this view, art can considerably facilitate the representation of the scientific content, by offering a different perspective on how a specific problem could be approached. Here we explore the possibility of presenting the earthquake process through visual dance. From a choreographer’s point of view, the focus is always on the dynamic relationships between moving objects. The observed spatial patterns (coincidences, repetitions, double and rhythmic configurations) suggest how objects organize themselves in the environment and what are the principles underlying that organization. The identified set of rules is then implemented as a basis for the creation of a complex rhythmic and visual dance system.

Recently, scientists have turned seismic waves into sound and animations, introducing the possibility of “feeling” the earthquakes. We try to implement these results into a choreographic model with the aim to convert earthquake sound to a visual dance system, which could return a transmedia representation of the earthquake process. In particular, we focus on a possible method to translate and transfer the metric language of seismic sound and animations into body language. The objective is to involve the audience into a multisensory exploration of the earthquake phenomenon, through the stimulation of the hearing, eyesight and perception of the movements (neuromotor system).

In essence, the main goal of this work is to develop a method for a simultaneous visual and auditory representation of a seismic event by means of a structured choreographic model. This artistic representation could provide an original entryway into the physics of earthquakes.