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## Art, Math, and Physics; All About FOR

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### Abstract

Anish Kapoor's public sculpture "Cloud Gate" and Frame of Reference.

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**Art, Math, and Physics; All About FOR**

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## **Art, Math, and Physics; All About FOR**

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Recently two colleagues from Fresno Pacific University attended conferences in Chicago, albeit different conferences and different times. Both of us have been engaged in discussion and research on the role of “Frame of Reference” (FOR) in Mathematics and Science Education. The conferences were focused on education but took place one week apart from each other in time. While in town though, we both made time to visit Anish Kapoor’s public sculpture “Cloud Gate.” This massive stainless steel sculpture has become an iconic image for both of us as we discuss FOR. Both of these images are of the same object, minor alterations in the frame of reference of the photographer make significant alterations in what information the image contains. We are constantly reminded that the goal of all studies remains similar, the search for truth, but the frames of reference: Art, Mathematics, Science all bring their own lens to this quest. One image, the one that takes in a large portion of the sculpture, reveals the reason Cloud Gate earns its nickname “The Bean.” This image reflects the world around the sculpture, bending light and reality. The second image, of the “omphalos” of the sculpture, conjures up the works of M.C. Escher, many a mathematician claim his works as favorites. We could discuss reflection, curvature, gravity, the mathematics of change, the art of altering perceptions, engineering, materials science and on and on. Each topic spinning out of our reflection upon what we perceive. We find this blend of interests both stimulating and productive.