MATH 123

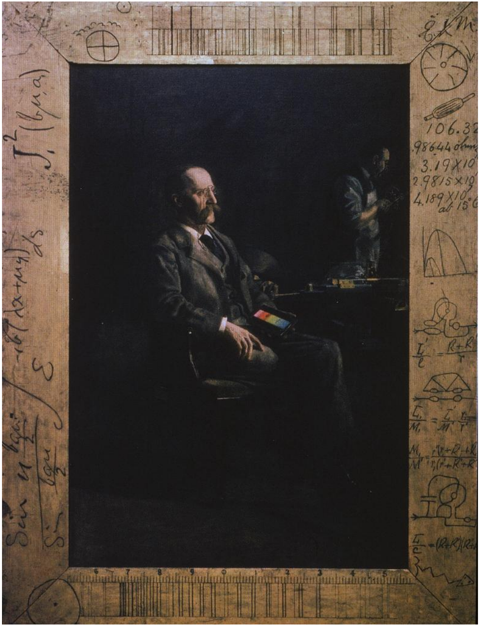
Visualization

Day 1

Math as *Readymade*

Richard Hammack

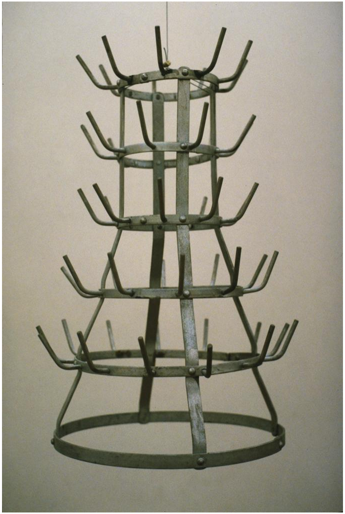
http://www.people.vcu.edu/∼rhammack/Math123/



Thomas Eakins
Portrait of Professor Henry A. Roland
1897

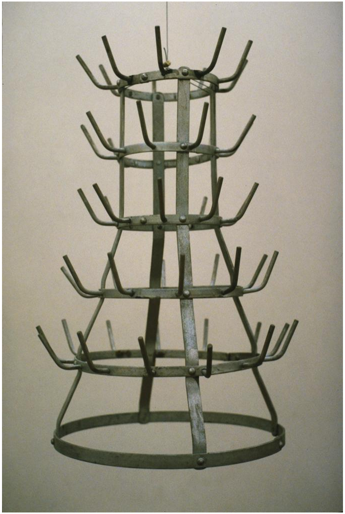
Joseph Cornell, *Solar Set*, c. 1950

Marcel Duchamp



1914

Marcel Duchamp

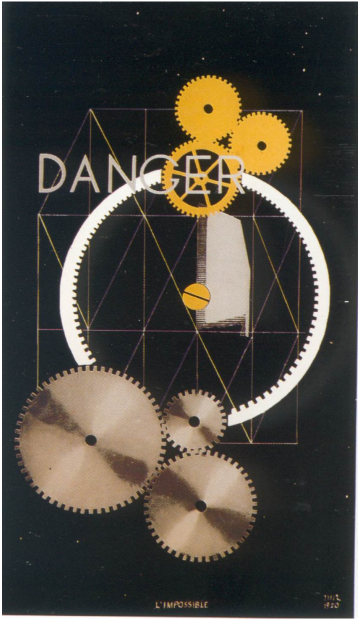


1914

1913

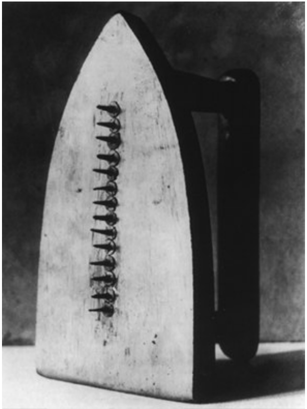
Man Ray

Man Ray



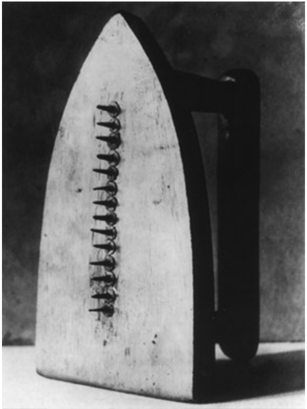
DANGER/DANCER
1920

Man Ray



The Gift, 1921

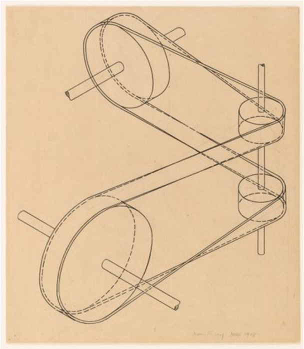
Man Ray



The Gift, 1921

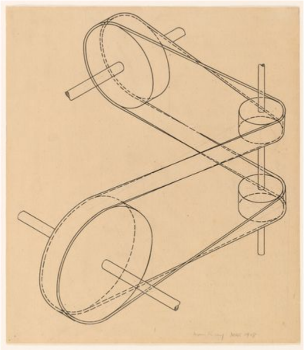
Indestructible object
(or object to be destroyed)
1964 replica of 1923 origonal

Man Ray

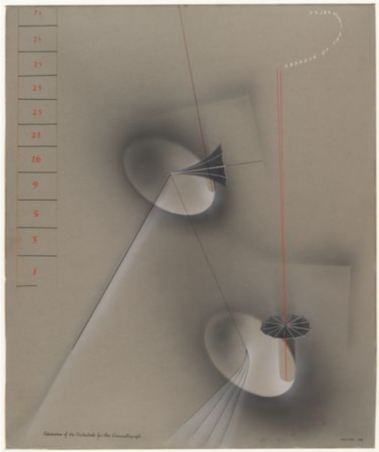


1908

Man Ray



1908



Admiration of the Orchestrelle for the Cinematograph,
1919

Man Ray

One day I was told about some mathematical objects at the Institut Poincaré in Paris. These were built ... to explain algebraic equations. I went to see them, although I am not particularly interested in mathematics. I didn't understand a thing, but the shapes were so unusual, as revolutionary as anything that is being done today in painting or in sculpture. And I spent several days photographing and sketching them with the intention of doing a series of paintings influenced and inspired by these objects.

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Man Ray


1936

Man Ray

1936

Shakespearean Equation: Measure for Measure,
oil on canvas, 1948

Man Ray

1936

Man Ray

1936

Shakespearean Equation: Twelfth Night,
oil on canvas, 1948

Man Ray

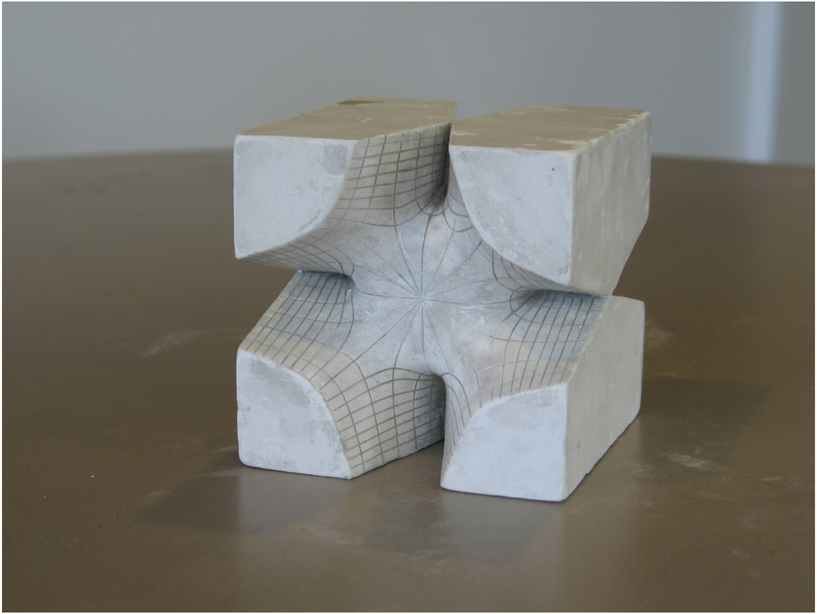
1936

Man Ray

1936

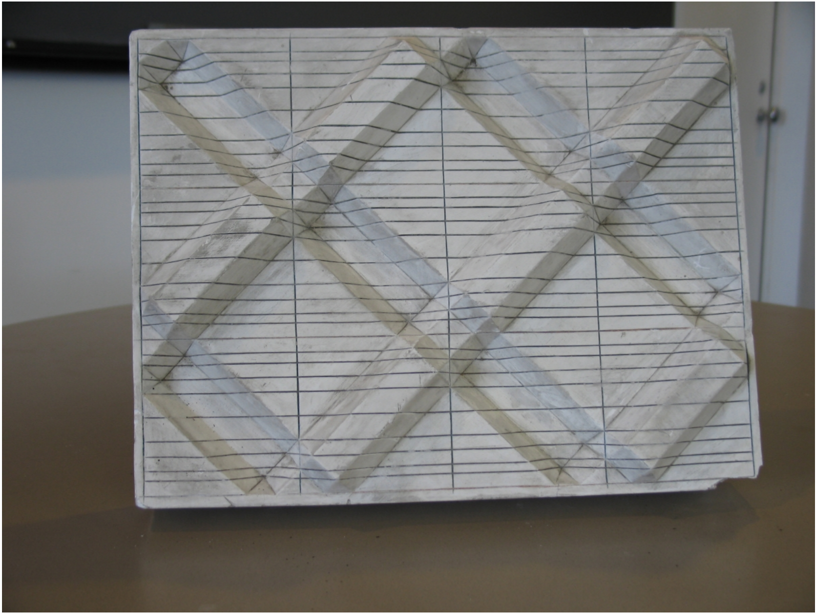
Shakespearean Equation: King Lear,
oil on canvas, 1948

Mathematical Model

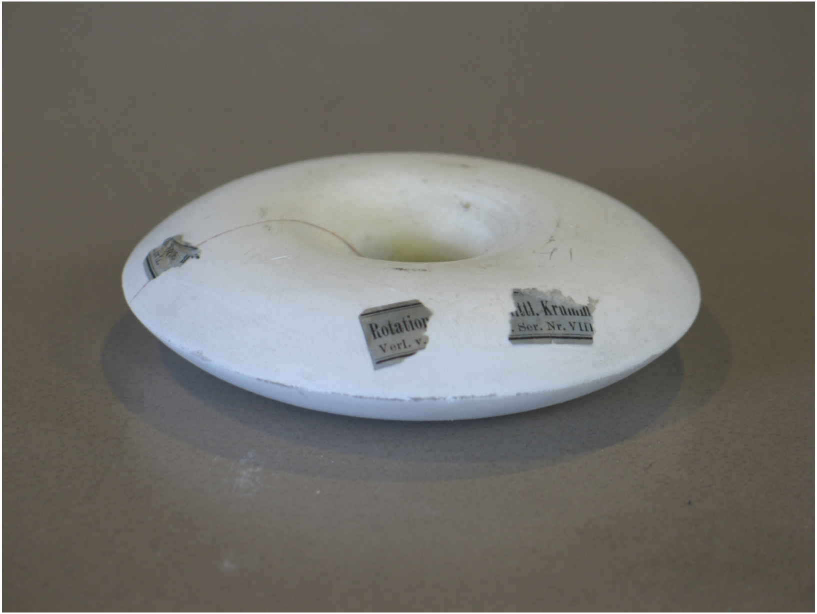


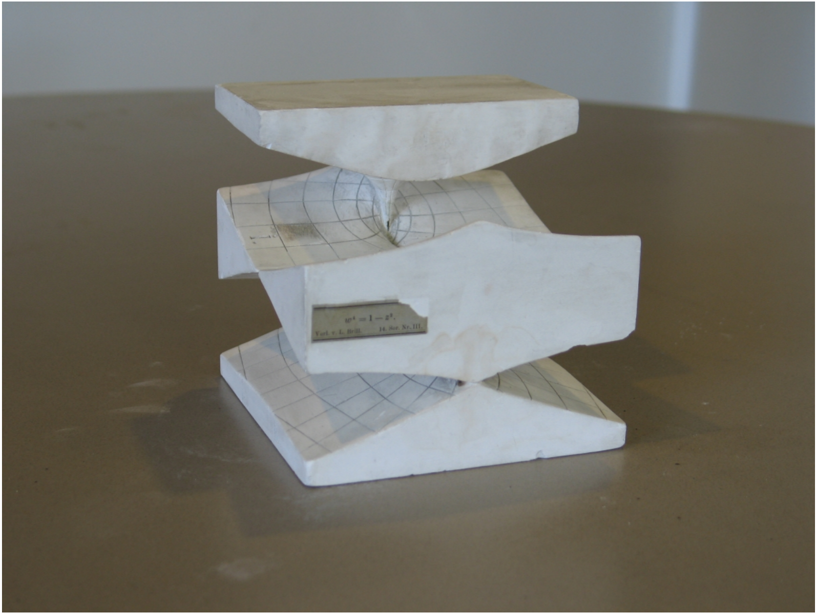
Collection of Harvard University Mathematics Department www.math.harvard.edu/history/models

Mathematical Model

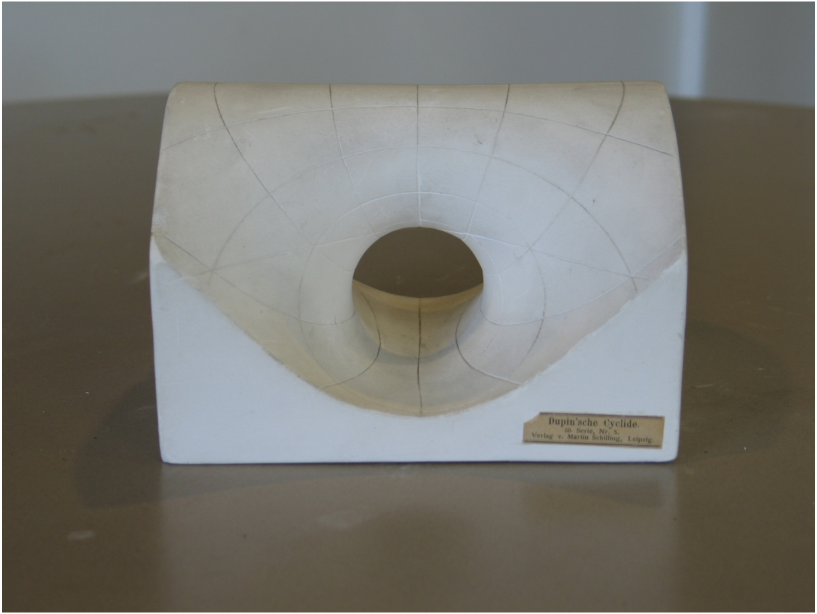


Mathematical Model




Verl. v. L. Brill.
14. Ser. Nr. III.

Mathematical Model



Collection of Harvard University Mathematics Department www.math.harvard.edu/history/models

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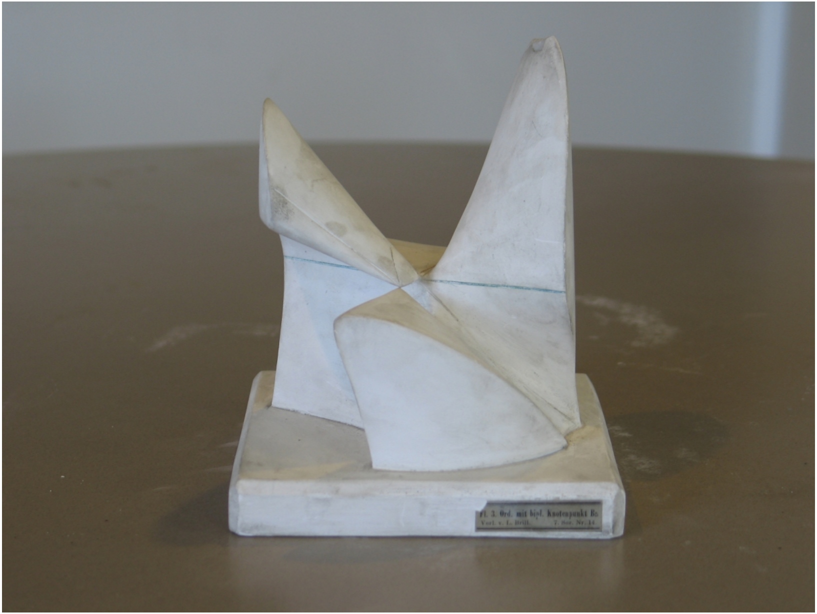

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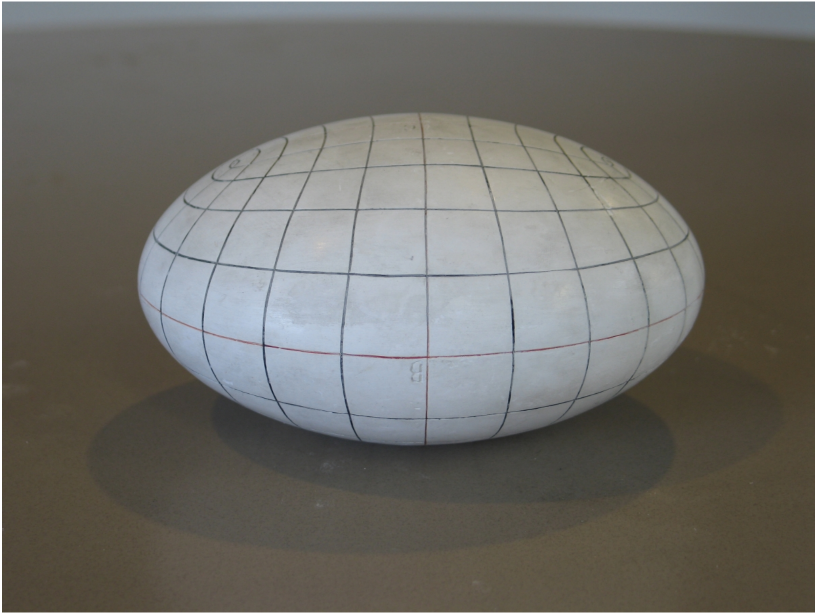

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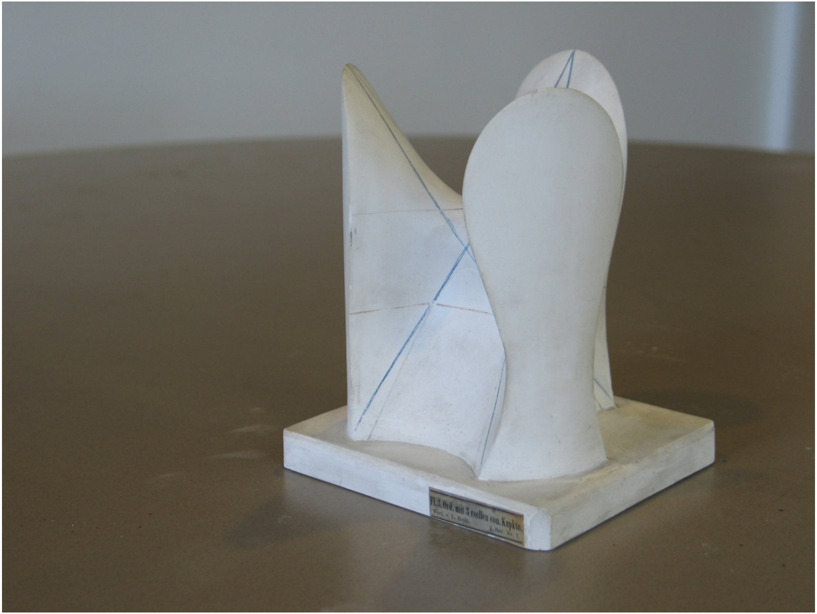

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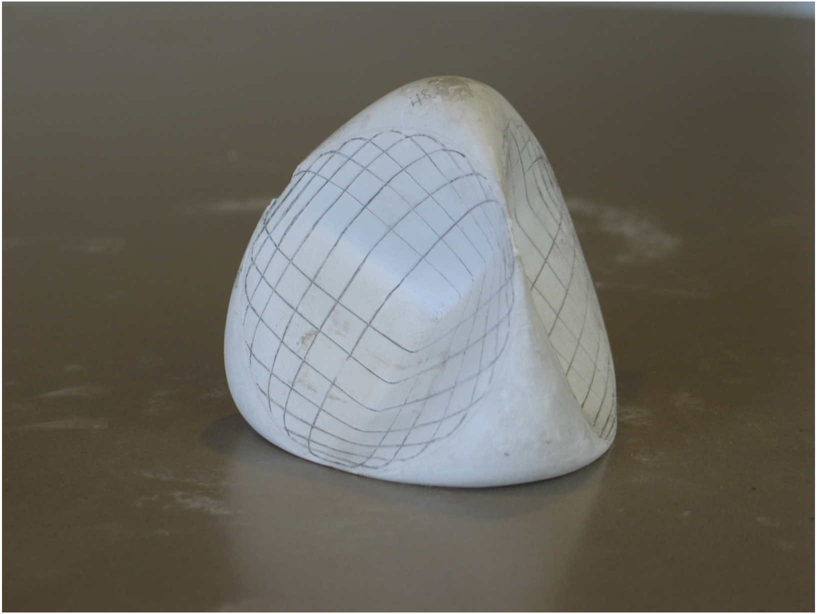
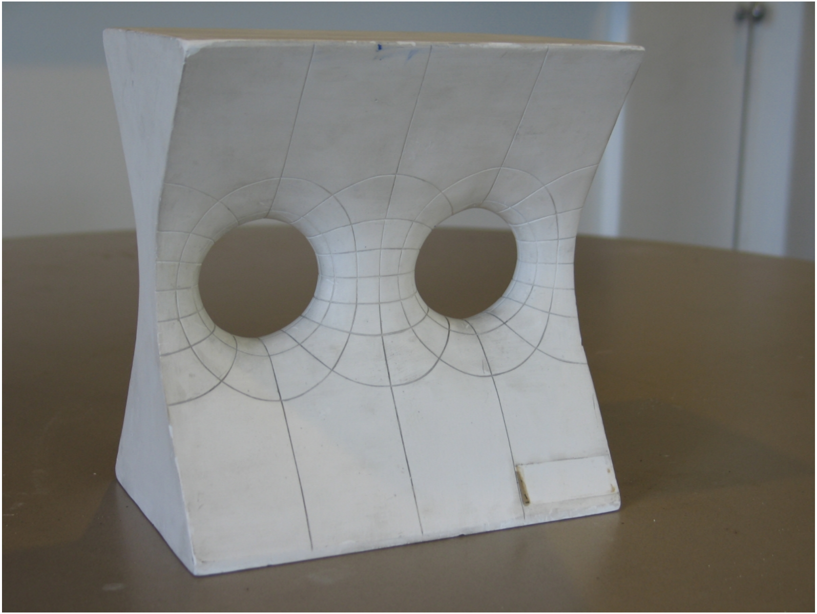


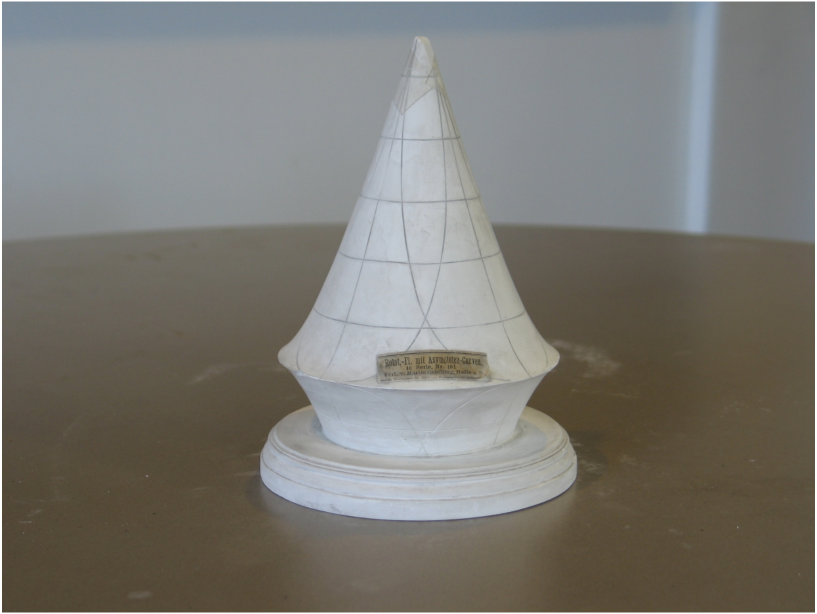
Mathematical Model



Collection of Harvard University Mathematics Department www.math.harvard.edu/history/models

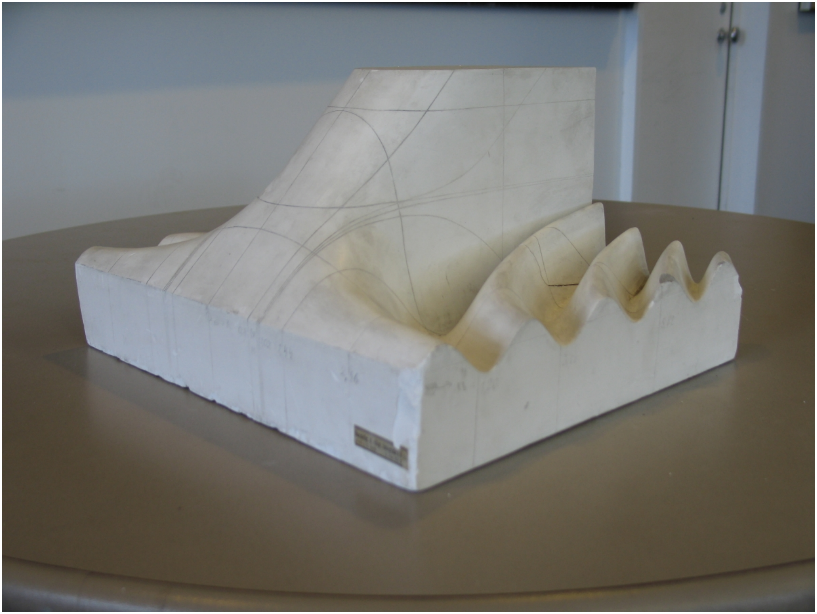

Rotationsfl. const. mittl. Krümmg.
Verl. v. L. Brill. 2. Ser. Nr. VIII b.

Mathematical Model

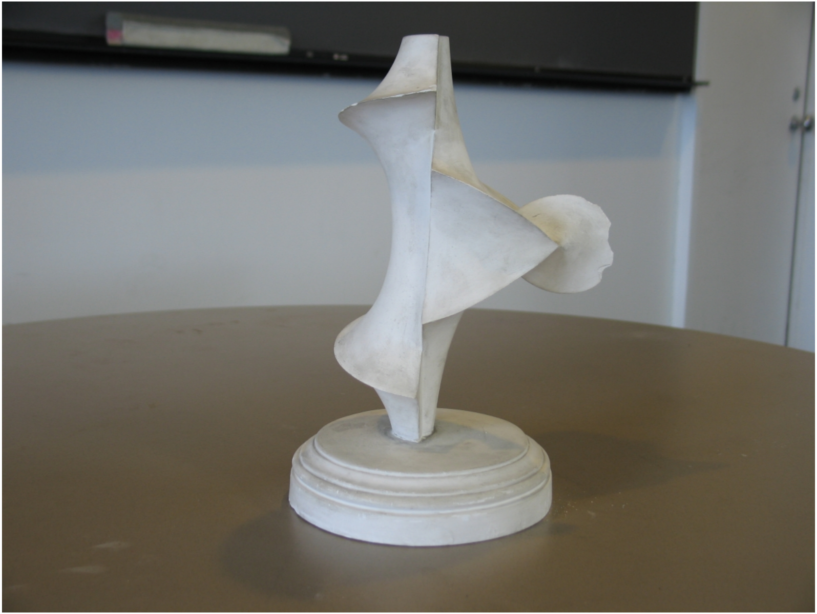


Collection of Harvard University Mathematics Department www.math.harvard.edu/history/models

Mathematical Model

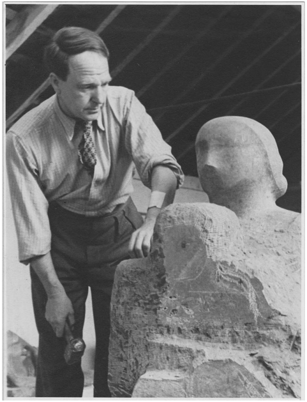


Mathematical Model

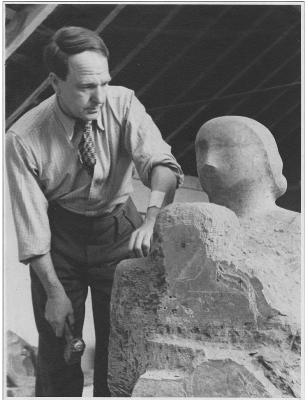



6
24
15
5
Diagonalfläche 3. Ordnung
Verl. v. L. Brill.
7. Ser. Nr.

Photography by Hiroshi Sugimoto



1946


1946


Osso buco

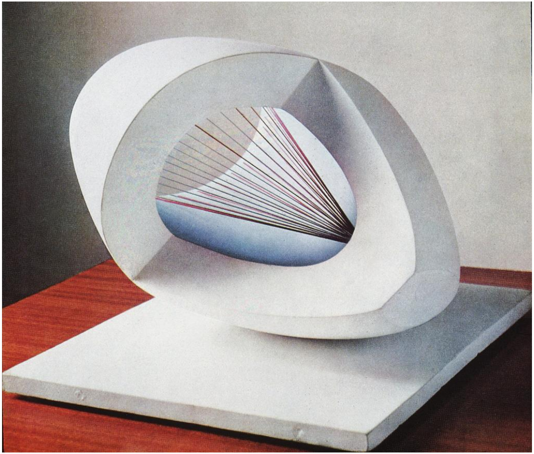
Henry Moore

Undoubtedly the source of my stringed figures was the Science Museum...I was fascinated by the mathematical models I saw there, which had been made to illustrate the difference of the form that is halfway between a square and a circle. One model had a square at one end with twenty holes along each side, making eighty holes in all. Through these holes strings were threaded and lead to a circle with the same number of holes at the other end. A plane interposed through the middle shows the form that is halfway between a square and a circle. One end could be twisted to produce forms that would be terribly difficult to draw on a flat surface. It wasn't the scientific study of these models but the ability to look through the strings as with a bird cage and see one form within the other which excited me.

Head, 1938

Barbara Hepworth

Barbara Hepworth



Sculpture with Color, 1943

Barbara Hepworth

Excerpt of letter to Ben Nicholson:

John Summerson says there are some marvelous things in a mathematical school in Oxford – sculptural working out of mathematical equations – hidden away in a cupboard – I think I shall go to Oxford as soon as I get back from Leeds.

Barbara Hepworth

Wallnut, 1964

Barbara Hepworth

Wallnut, 1964

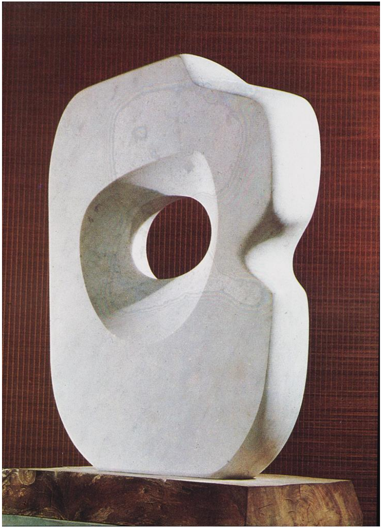
Group I-Concourse, 1951, marble

Barbara Hepworth

Dual Form, 1965

Barbara Hepworth

Dual Form, 1965



Pierced form, 1964

1948

Antoine Pevsner

1948

Construction in Space in the Third and Fourth Dimension, 1960

Antoine Pevsner

Dynamic Projection at 30 Degrees

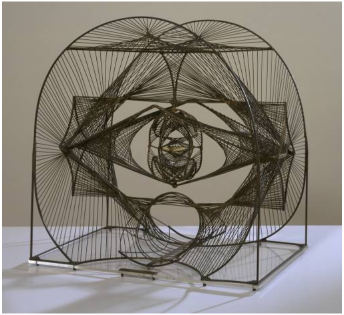
Antoine Pevsner

Dynamic Projection at 30 Degrees

Construction in an Egg

Antoine Pevsner

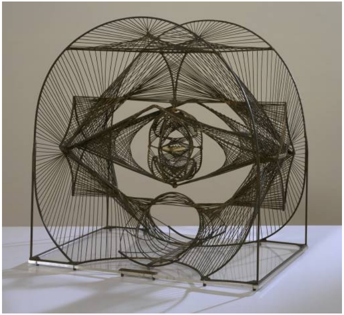
"Art must be inspired and controlled by mathematics."



Maquette of a Monument Symbolising the Liberation of the Spirit, 1952

Antoine Pevsner

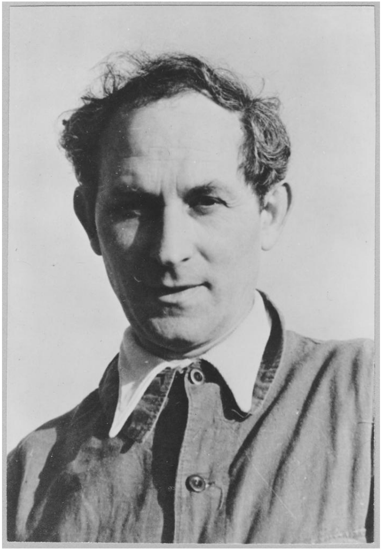
"Art must be inspired and controlled by mathematics."



Maquette of a Monument Symbolising the Liberation of the Spirit, 1952

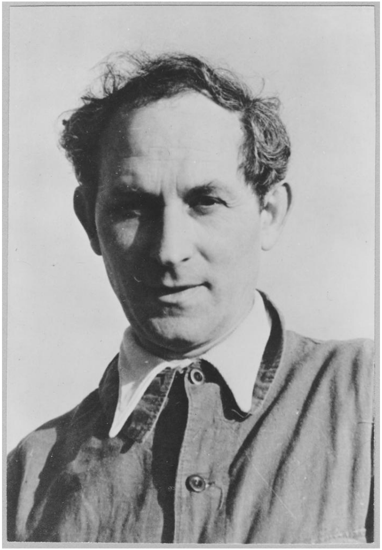
Pevsner with Peggy Guggenheim, 1940

Naum Gabo



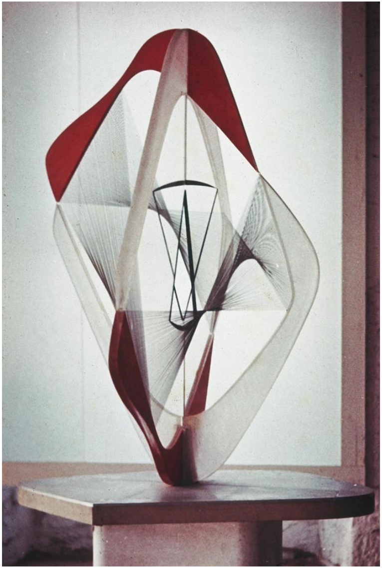
1948

Naum Gabo



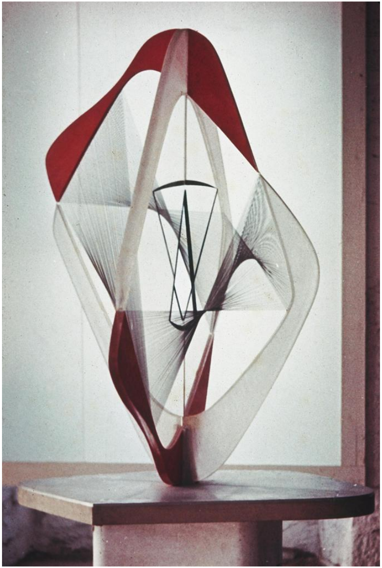
1948

Head of a Woman, c. 1918

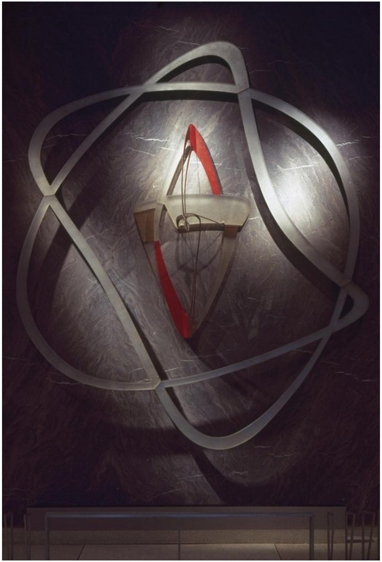


Construction in Space III with Red, 1953

Naum Gabo



Construction in Space III with Red, 1953



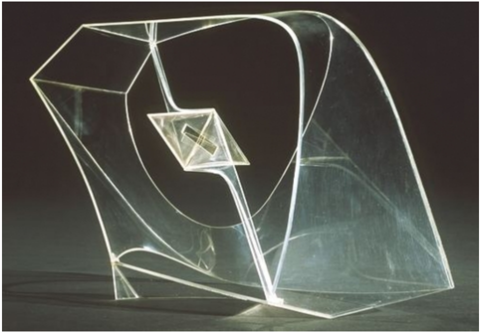
Construction, 1956

Naum Gabo

Linear Construction in Space No. 1, 1943

Naum Gabo

Linear Construction in Space No. 1, 1943



Construction in Space with Crystalline Centre, 1938 -1940

Bernar Venet

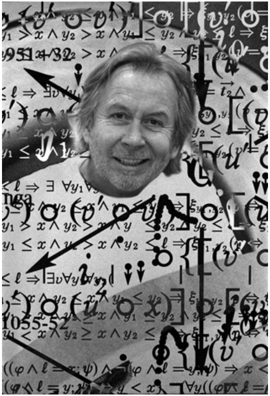
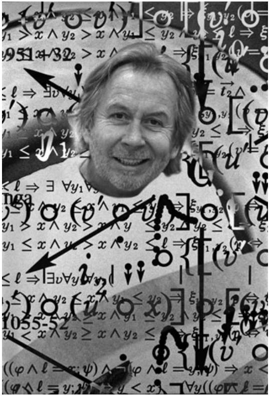


Photo by Antonie Poupel

Bernar Venet



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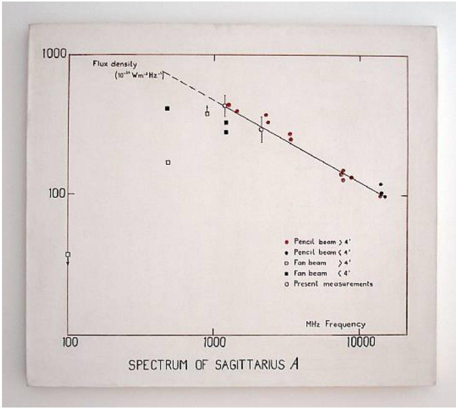
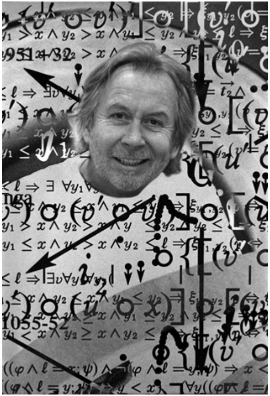


1967

Bernar Venet



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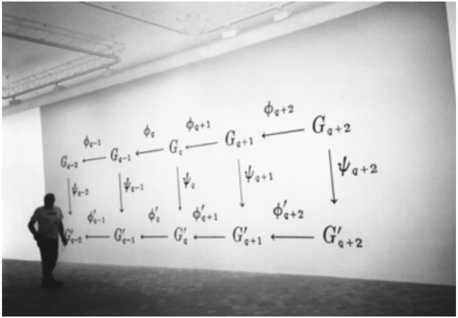
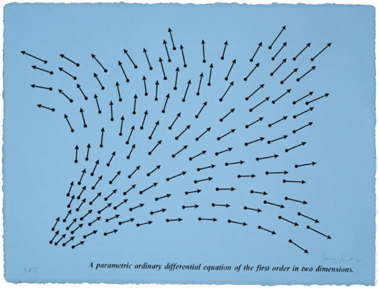
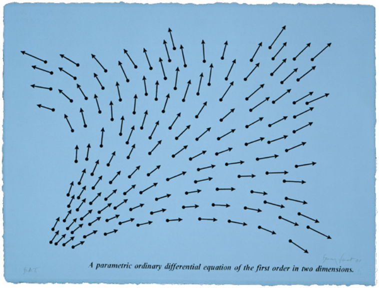
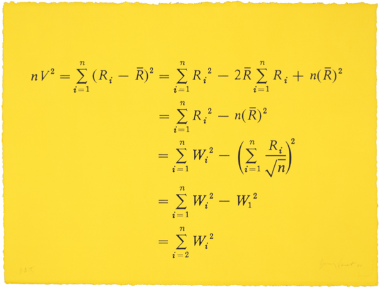


Bernar Venet, screenprints, 2001



Bernar Venet, screenprints, 2001





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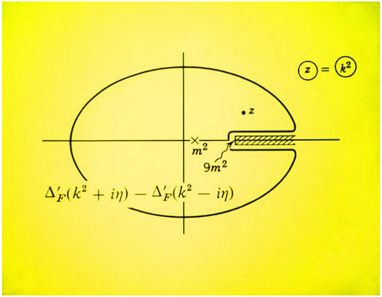

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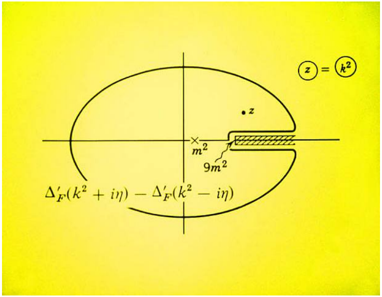

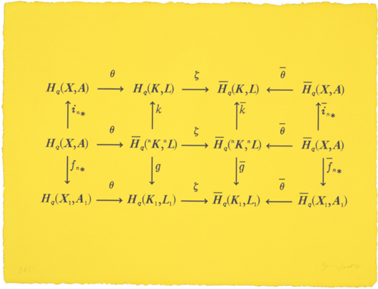

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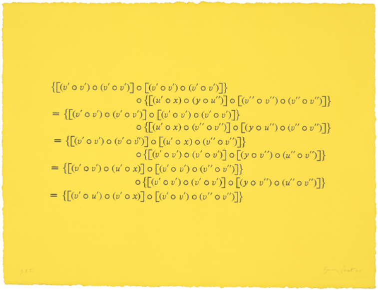
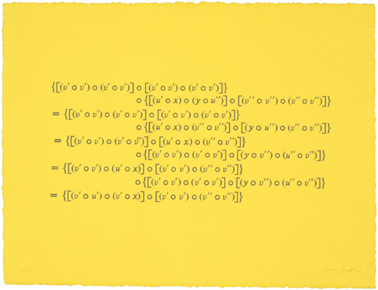
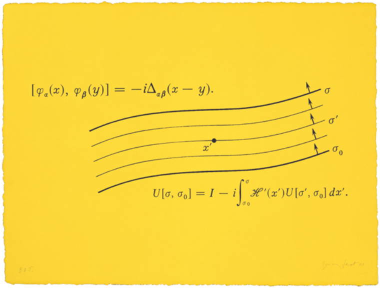
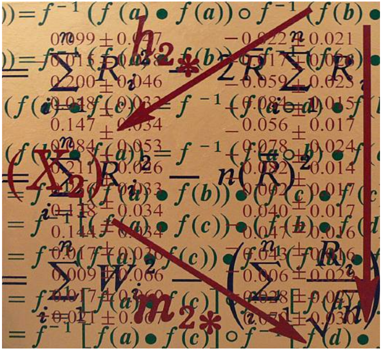


Bernar Venet, screenprints, 2001





Brenar Venet, acrylic on canvas, 2004



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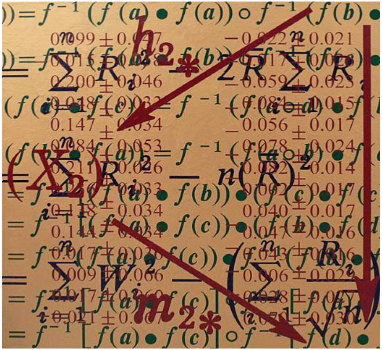

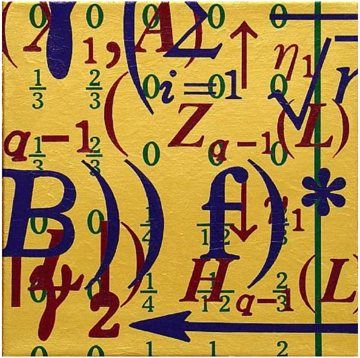

Next time:

Introduction to the Fourth Dimension