Processos criativos em ciências

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AULA 17 – 19/10/2022

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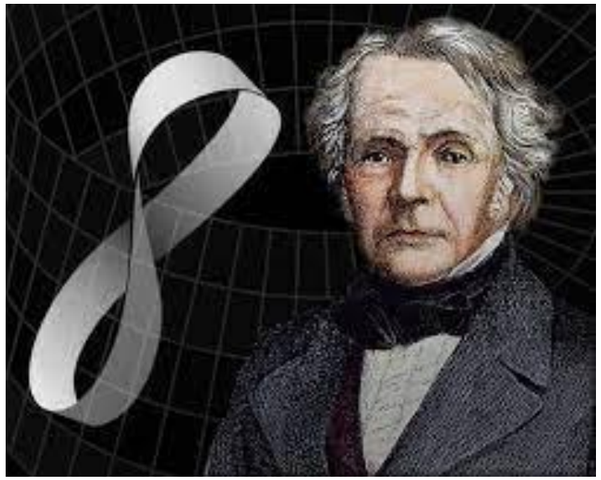
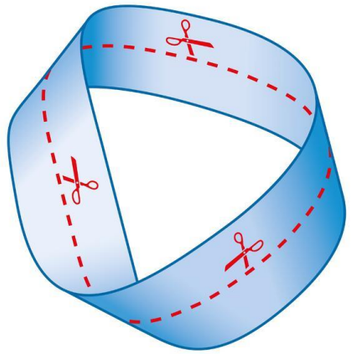
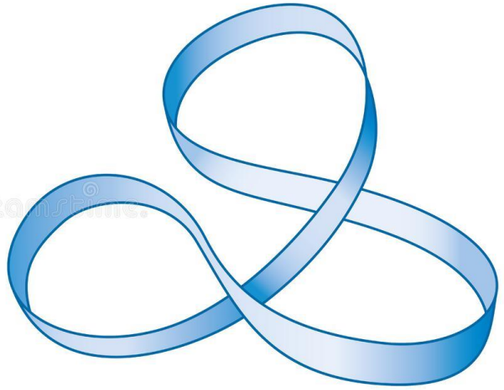
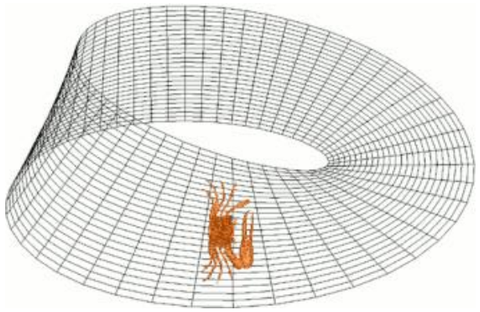
Fita de Möbius

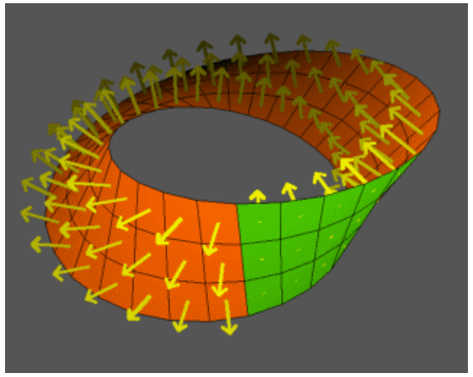






impa





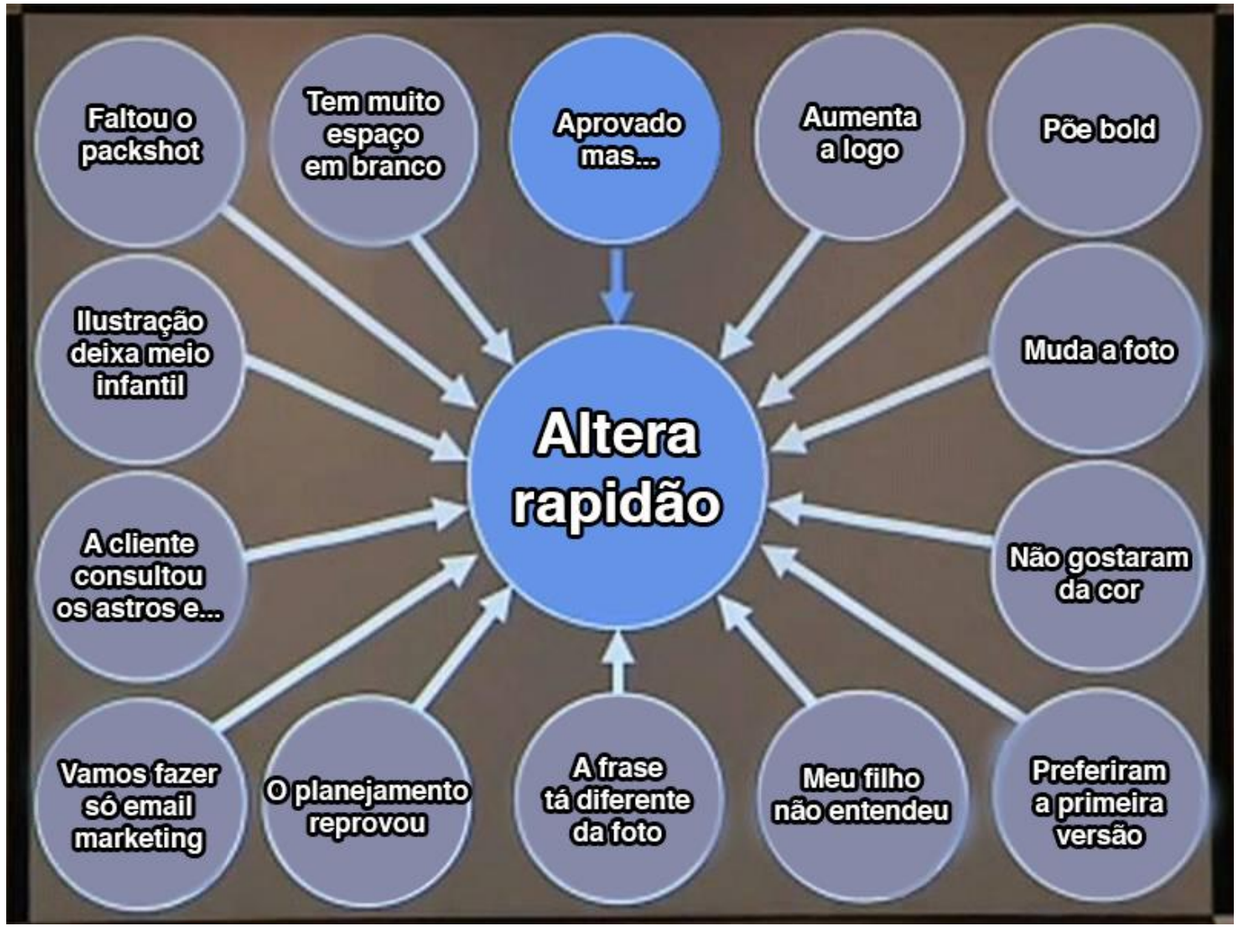
half-twists	cuts	divs.	result
1	1	2	1 band, length 2
1	1	3	1 band, length 2
			1 Möbius strip, length 1
1	2	4	2 bands, length 2
1	2	5	2 bands, length 2
			1 Möbius strip, length 1
1	3	6	3 bands, length 2
1	3	7	3 bands, length 2
			1 Möbius strip, length 1
2	1	2	2 bands, length 1
2	2	3	3 bands, length 1
2	3	4	4 bands, length 1

"Creating images is an important part of science work.
They can reveal a lot about the processes at work in the human body, make them real or tell you something new.
But they can be interesting objects in themselves.

Dr John J Williamson, Francis Crick Institute

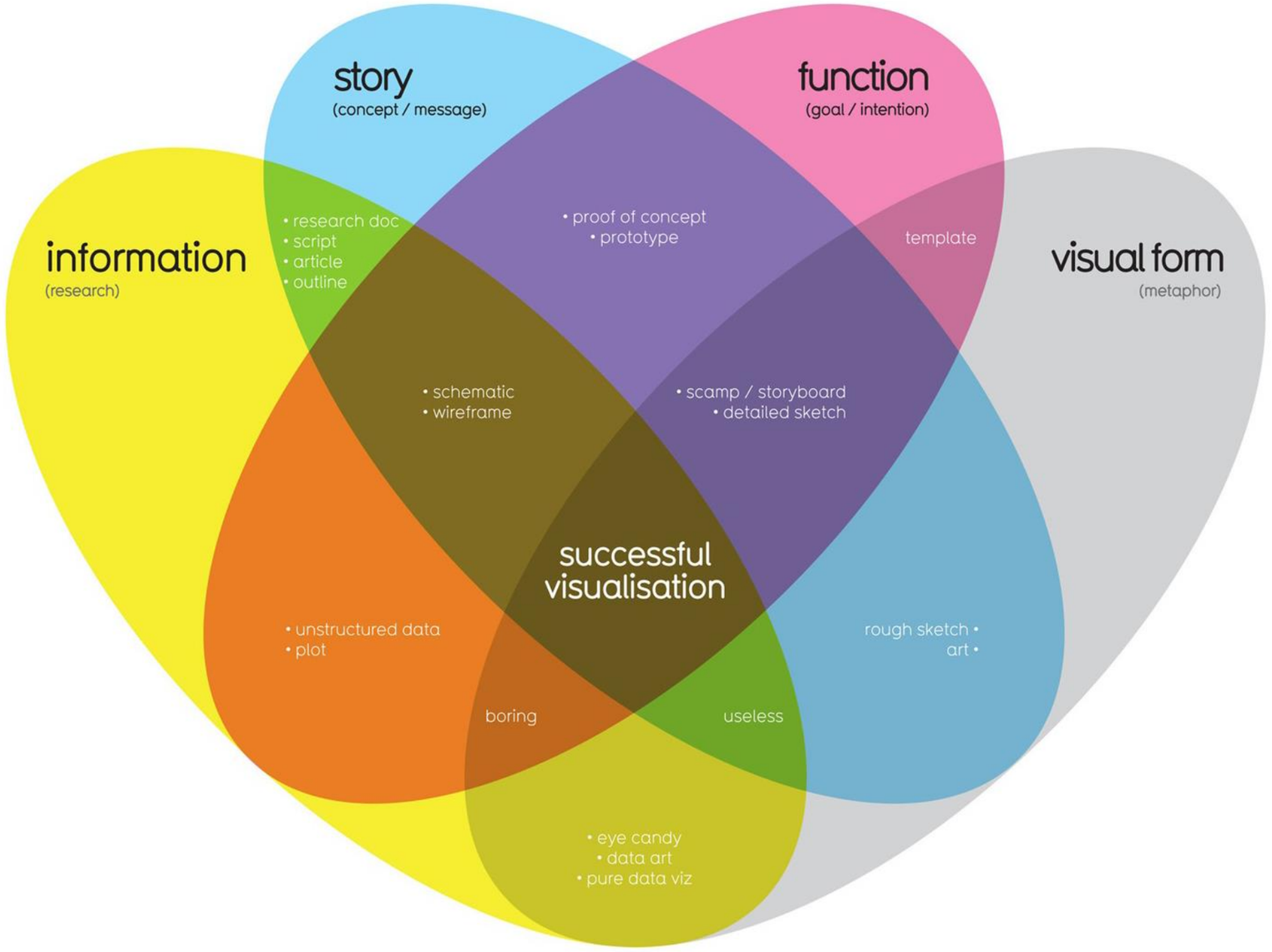
VISUALIZAÇÃO CIENTÍFICA

Visualização

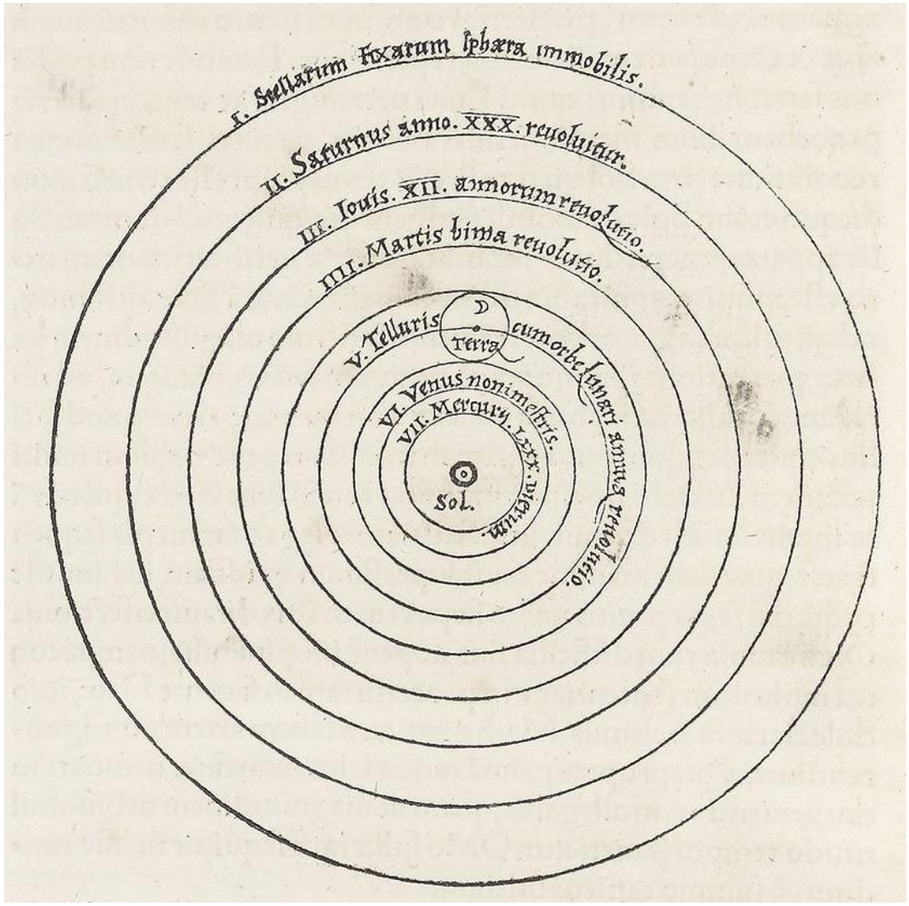


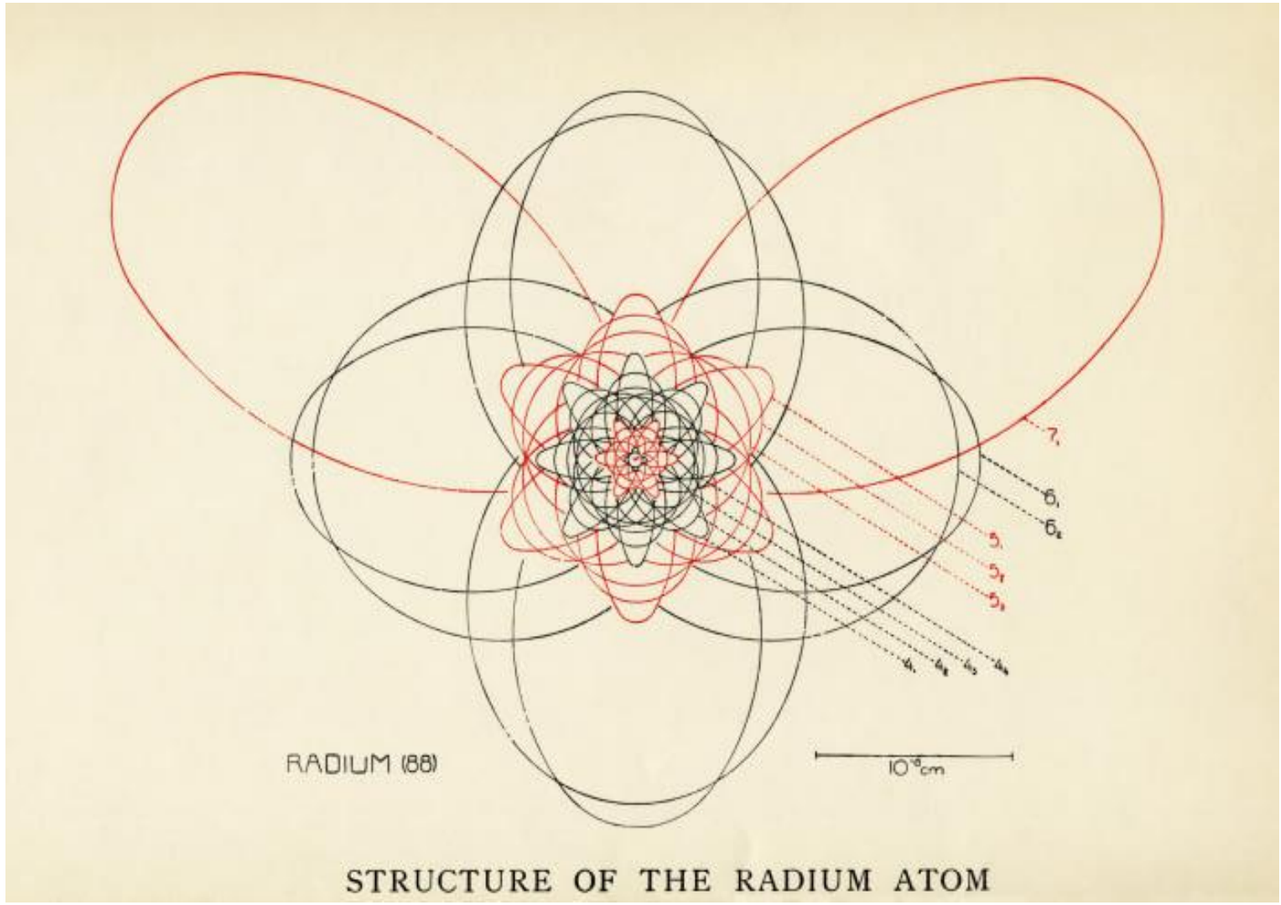
Evolução

Visualização

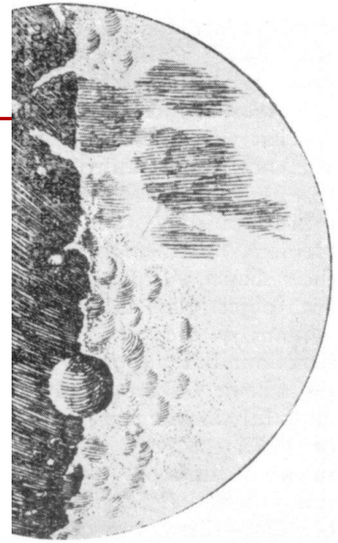


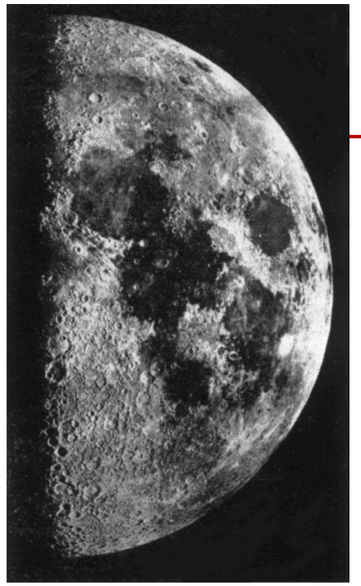
O papel da arte na ciência …

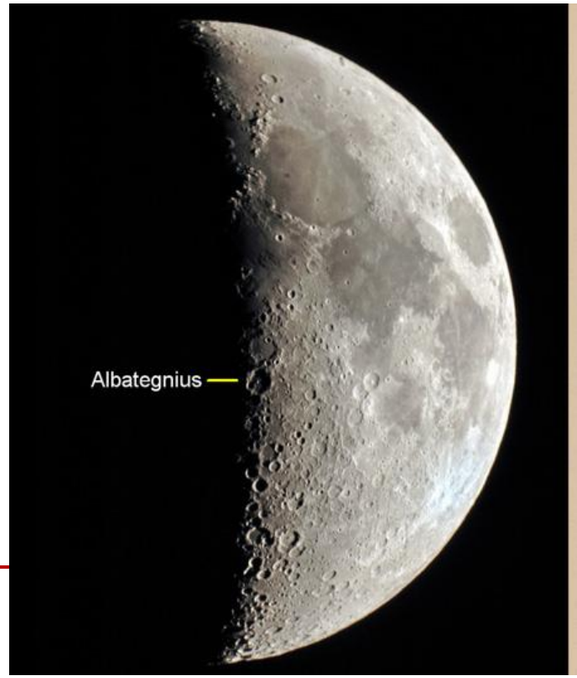


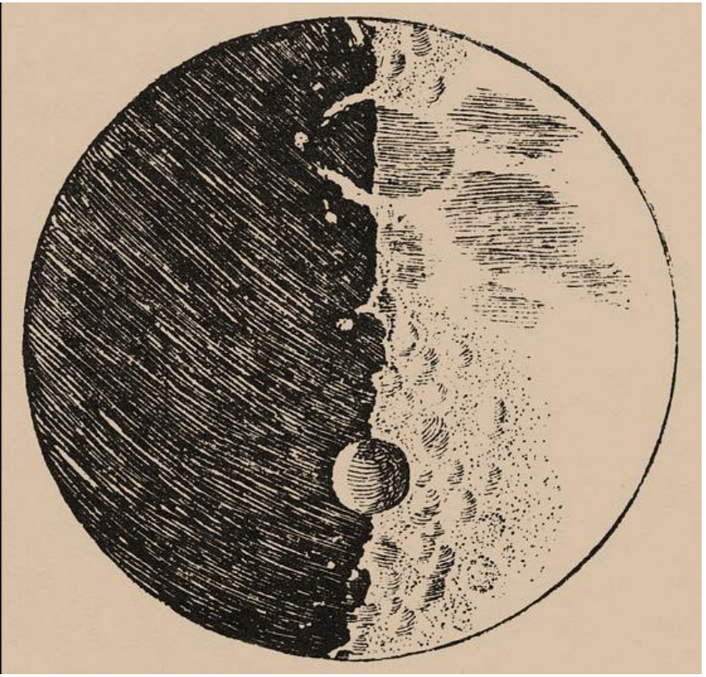


Galileu Galilei









O papel da arte na ciência …

A Structure for Deoxyribose Nucleic Acid

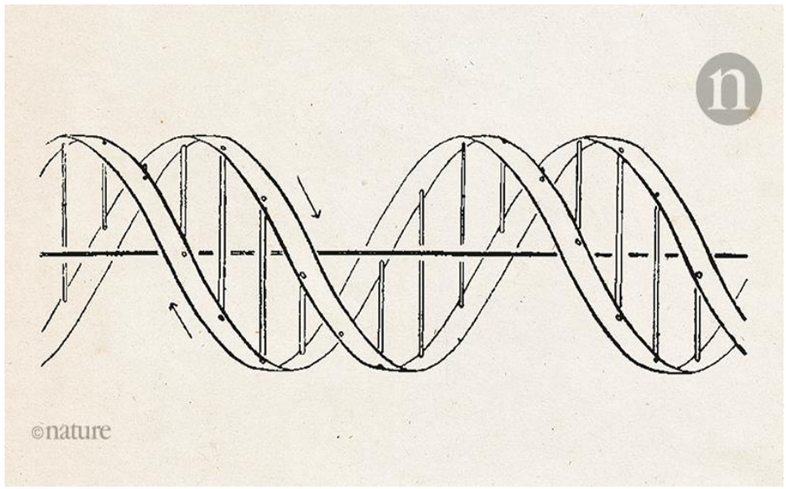
J. D. Watson and F. H. C. Crick

April 25, 1953 (2), *Nature* **(3),** 171, 737-738

We wish to suggest a structure for the salt of deoxyribose nucleic acid (D.N.A.). This structure has novel features which are of considerable biological interest.

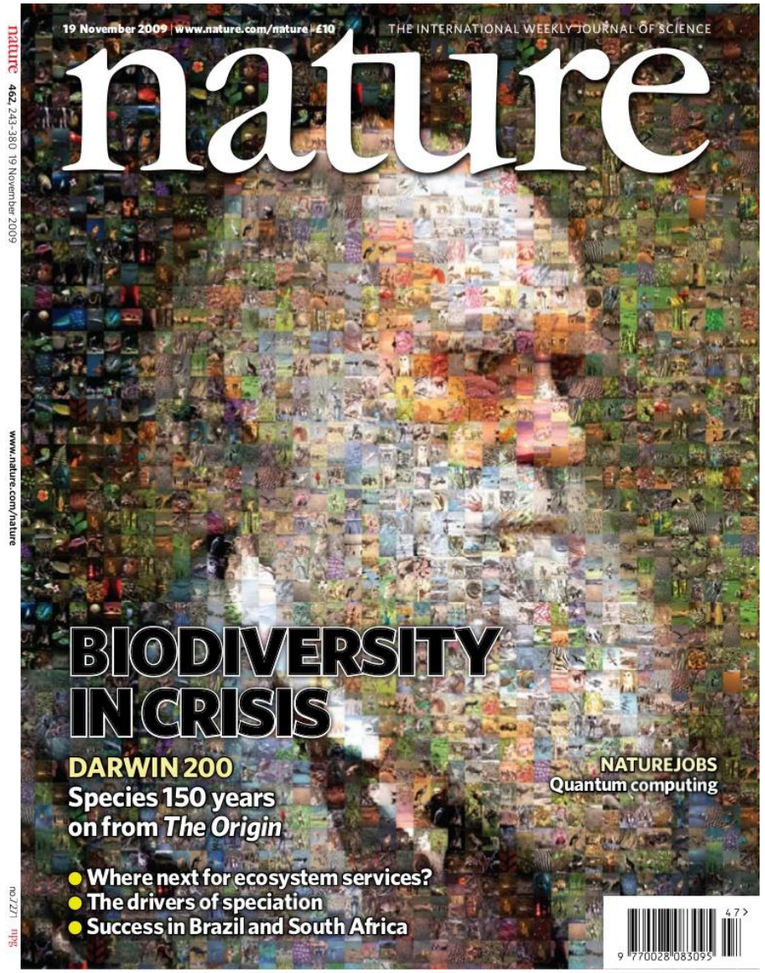
Figure 1
This figure is purely diagrammatic (8). The two ribbons symbolize the two phophate-sugar chains, and the horizonal rods the pairs of bases holding the chains together. The vertical line marks the fibre axis.

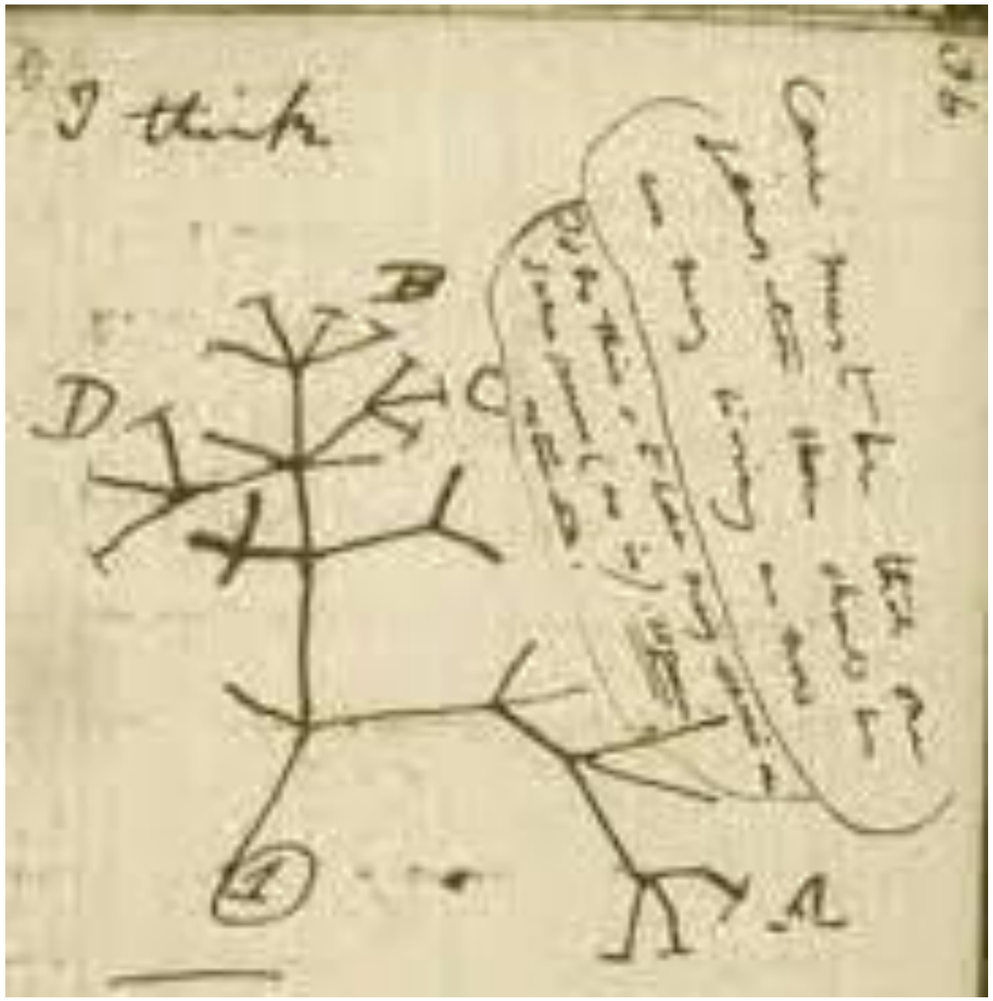
(8) A visual representation of Watson and Crick's model was crucial to show how the components of DNA fit together in a double helix. In 1953, Crick's wife, Odile, drew the diagram used to represent DNA in this paper. Scientists use many different kinds of visual representations of DNA.

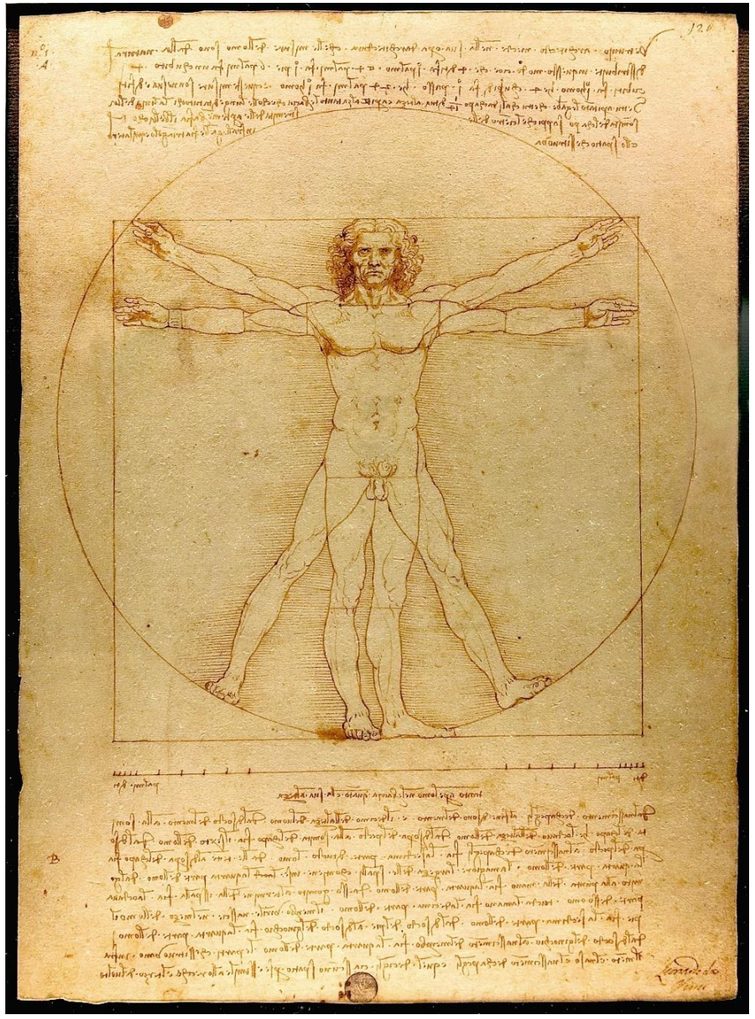


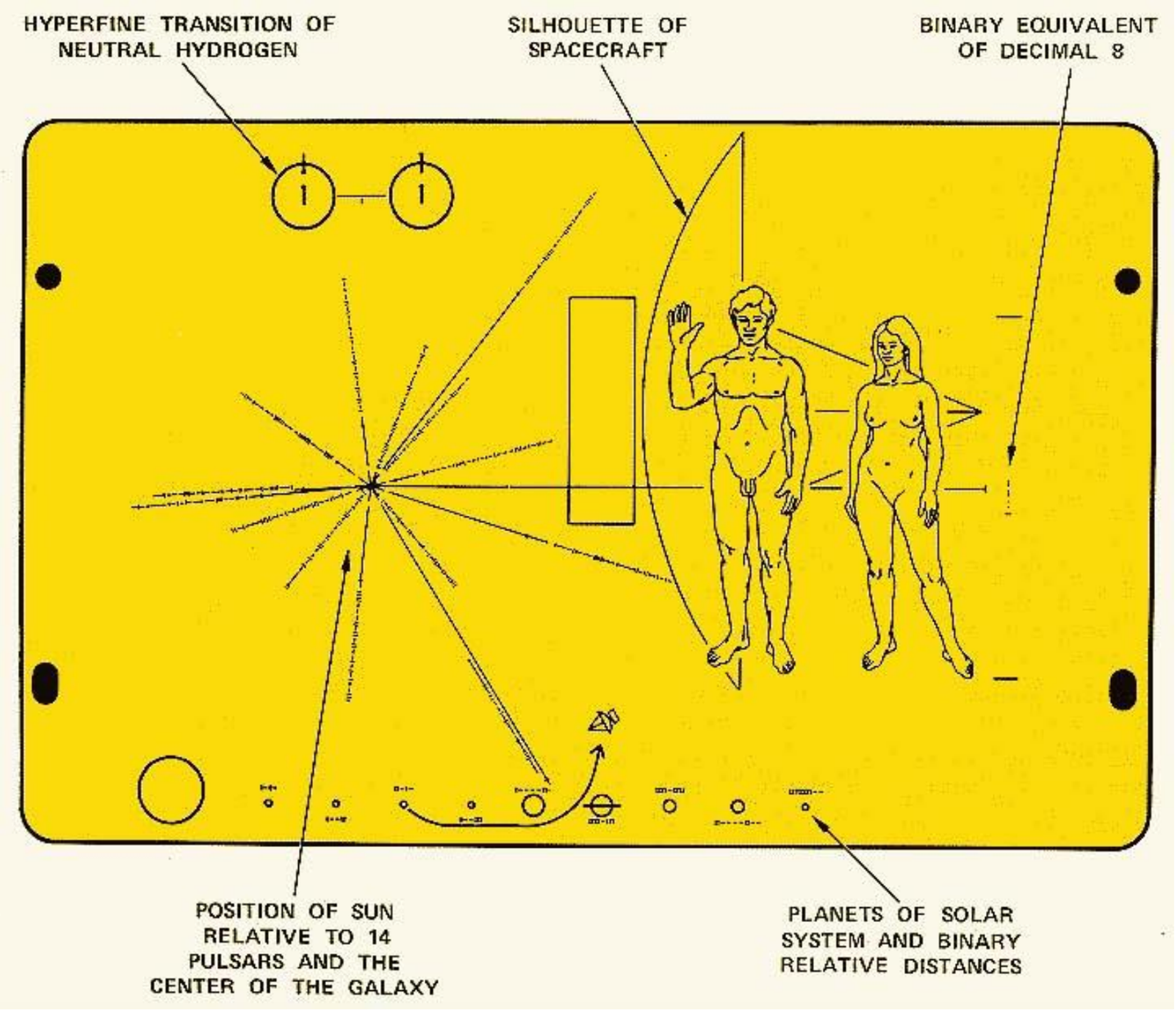
Francis e Odile Crick

Teoria da evolução

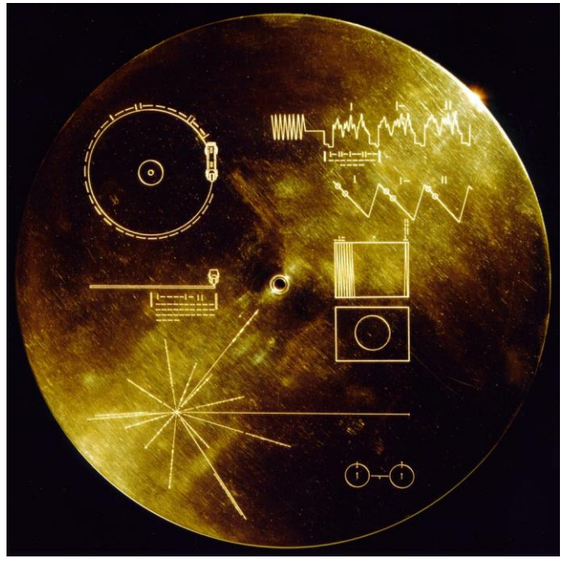






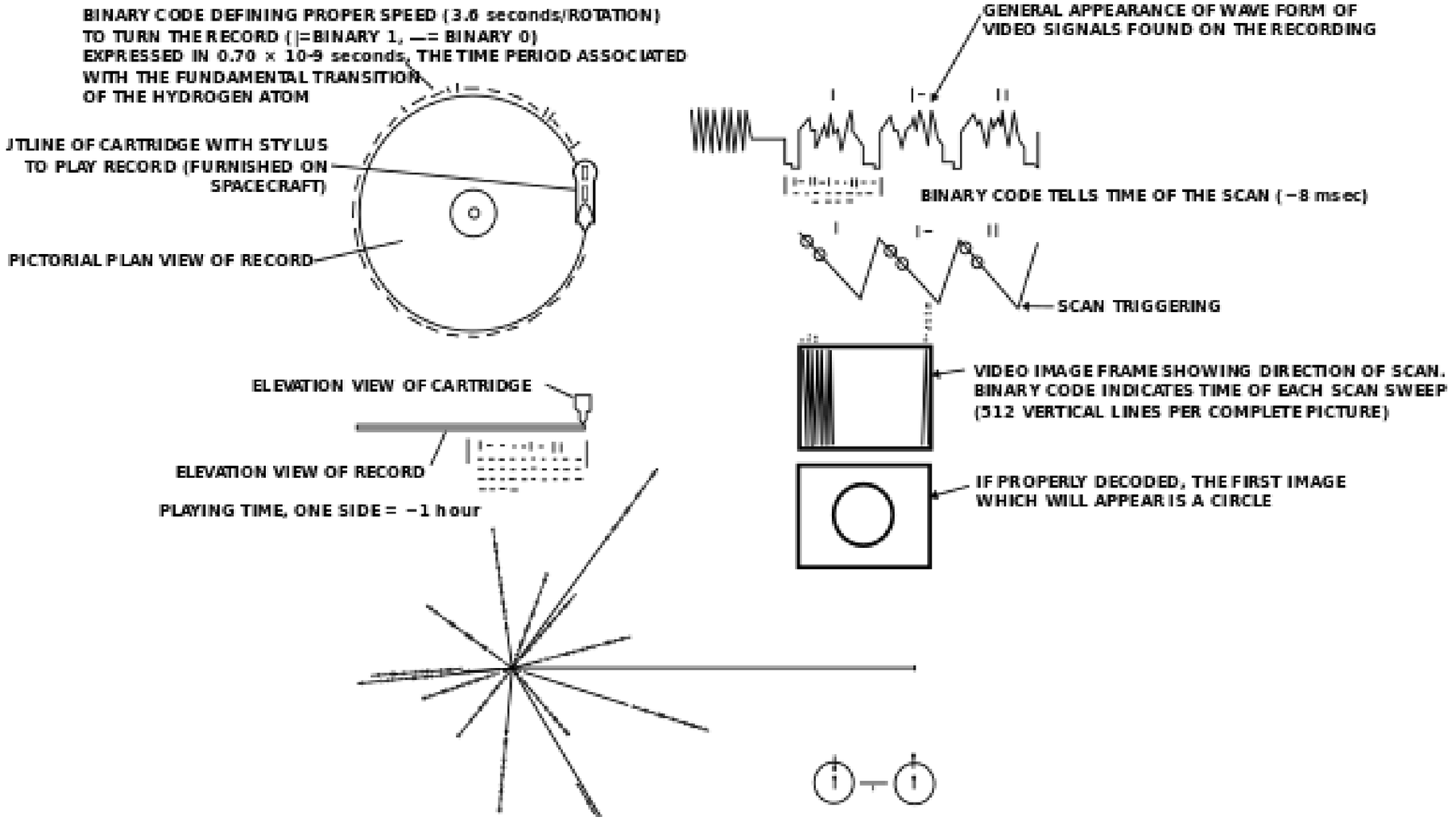

HYPERFINE TRANSITION OF NEUTRAL HYDROGEN
SILHOUETTE OF SPACECRAFT
BINARY EQUIVALENT OF DECIMAL 8
POSITION OF SUN RELATIVE TO 14 PULSARS AND THE CENTER OF THE GALAXY
PLANETS OF SOLAR SYSTEM AND BINARY RELATIVE DISTANCES

Diagramas



EXPLANATION OF RECORDING COVER DIAGRAM

THE DIAGRAMS BELOW DEFINE THE VIDEO PORTION OF THE RECORDING



THIS DIAGRAM DEFINES THE LOCATION OF OUR SUN UTILIZING 14 PULSARS OF KNOWN DIRECTIONS FROM OUR SUN. THE BINARY CODE DEFINES THE FREQUENCY OF THE PULSES.

THIS DIAGRAM ILLUSTRATES THE TWO LOWEST STATES OF THE HYDROGEN A THE VERTICAL LINES WITH THE DOTS INDICATE THE SPIN MOMENTS OF THE PROTON AND ELECTRON. THE TRANSITION TIME FROM ONE STATE TO THE OTHER PROVIDES THE FUNDAMENTAL CLOCK REFERENCE USED IN ALL THE COVER DIAGRAMS AND DECODED PICTURES.

Qual sua mensagem para o futuro ?

Pintura com café

Qual sua mensagem para o futuro ?