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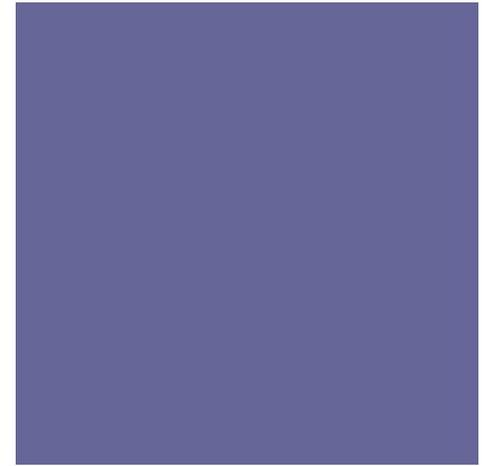
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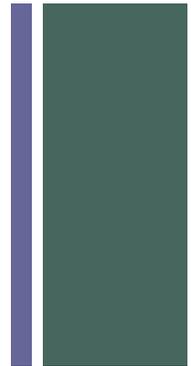
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# MULTIPLICATION

## HOW TO DO RUSSIAN MULTIPLICATION

**7 x 8**

**3 x 2 = 6**

**6 + 50 = 56**

RUSSIAN PEASANTS ARE SAID TO HAVE USED THIS METHOD FOR MULTIPLYING NUMBERS BETWEEN 6 & 10. THE FINGERS ARE MENTALLY NUMBERED FROM 6 TO 10 AS ABOVE. ANY PAIR OF NUMBERS CAN THEN BE MULTIPLIED AS IN THIS EXAMPLE.

TO MULTIPLY 7 BY 8 THE TIP OF EITHER 7 FINGER IS PLACED AGAINST THE TIP OF AN 8 FINGER ON THE OTHER HAND. THE TOUCHING FINGERS PLUS ALL THE FINGERS BELOW THEM ON BOTH HANDS REPRESENT THE '10' (i.e. 50).

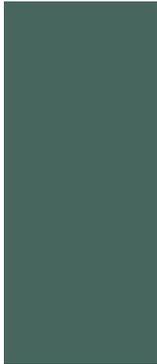
NOW MULTIPLY THE NUMBER OF REMAINING FINGERS ON THE LEFT HAND BY THE NUMBER OF REMAINING FINGERS ON THE RIGHT (i.e. 3 x 2 = 6). ADD THIS TO THE TENS OBTAINED PREVIOUSLY (50) TO GET THE FINAL ANSWER.

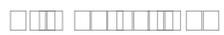
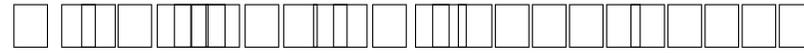




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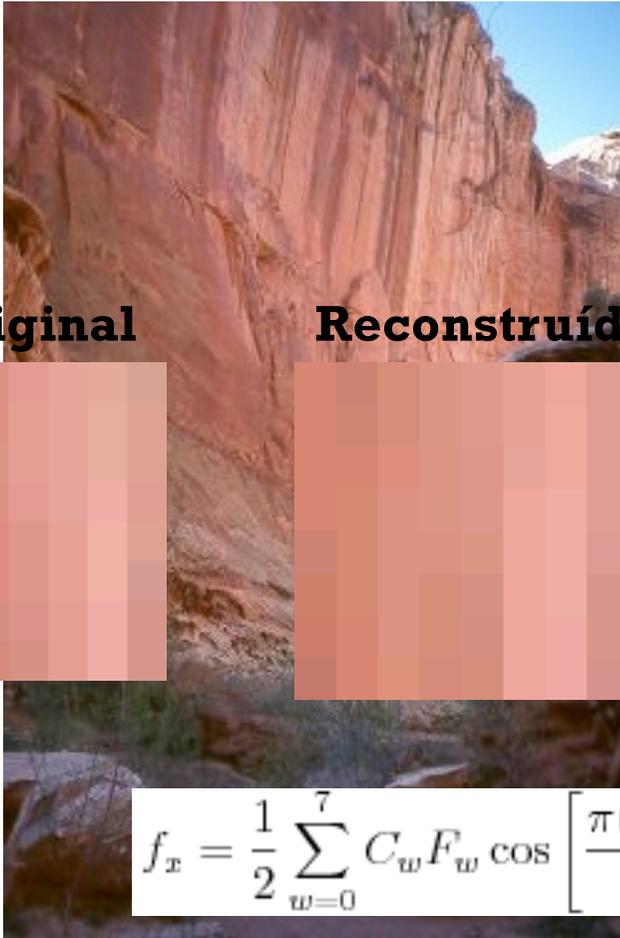
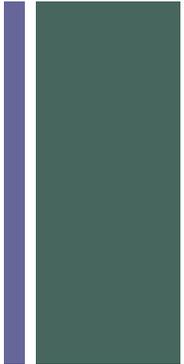




# LETRA DEL NIF



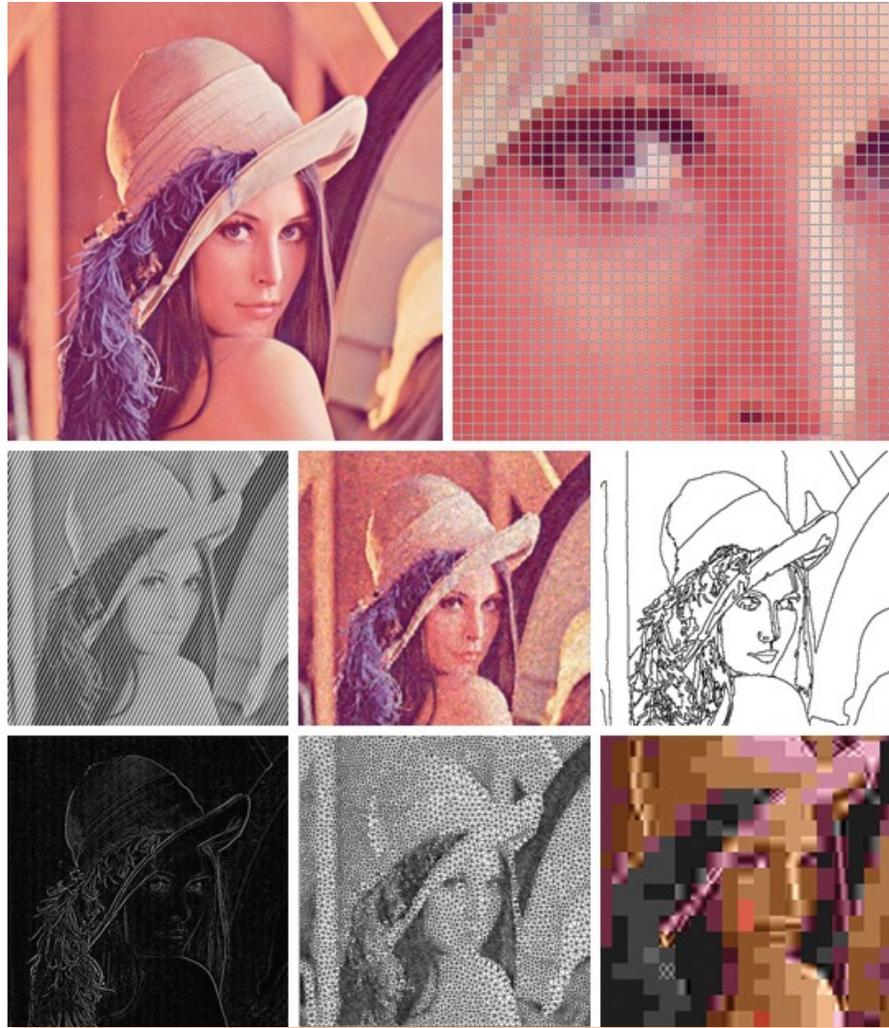
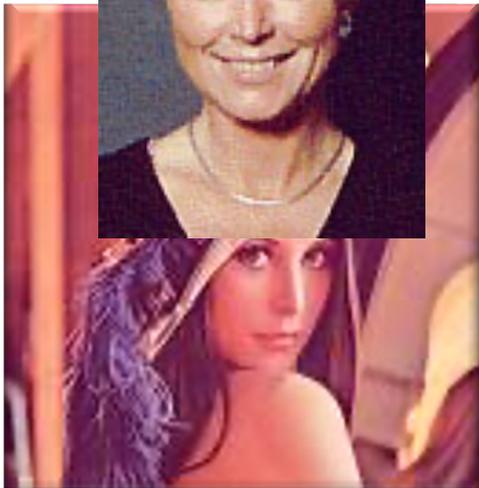
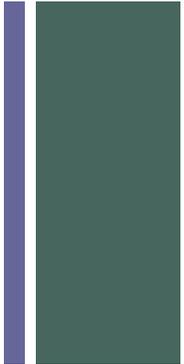
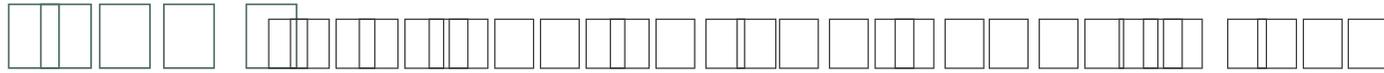
0	1	2	3	4	5	6	7	8	9					
				DNI										
T	R	W	A	G	<del>3</del>	<del>5</del>	<del>4</del>	<del>8</del>	<del>8</del>	<del>2</del>	<del>3</del>	<del>0</del>		
			...		M	P	F	P	D	<sup>23</sup>				
10	11	12	13	14	15	16	<del>1</del>	<del>2</del>	<del>1</del>	<del>8</del>	19	20	21	22
				RESTO										
X	B	N	J	Z	S	Q	V	H	L	C	K	E		

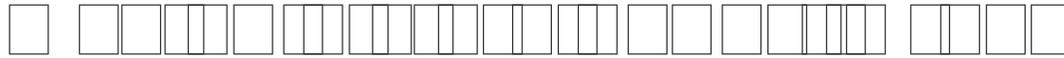


**Original**

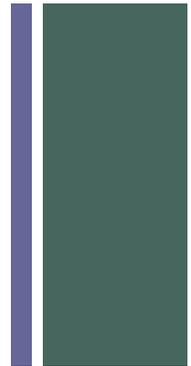
**Reconstruído**

$$f_x = \frac{1}{2} \sum_{w=0}^7 C_w F_w \cos \left[ \frac{\pi(2x + 1)w}{16} \right].$$

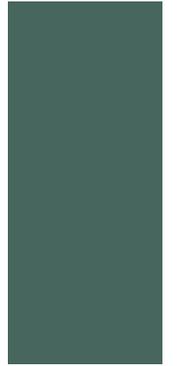




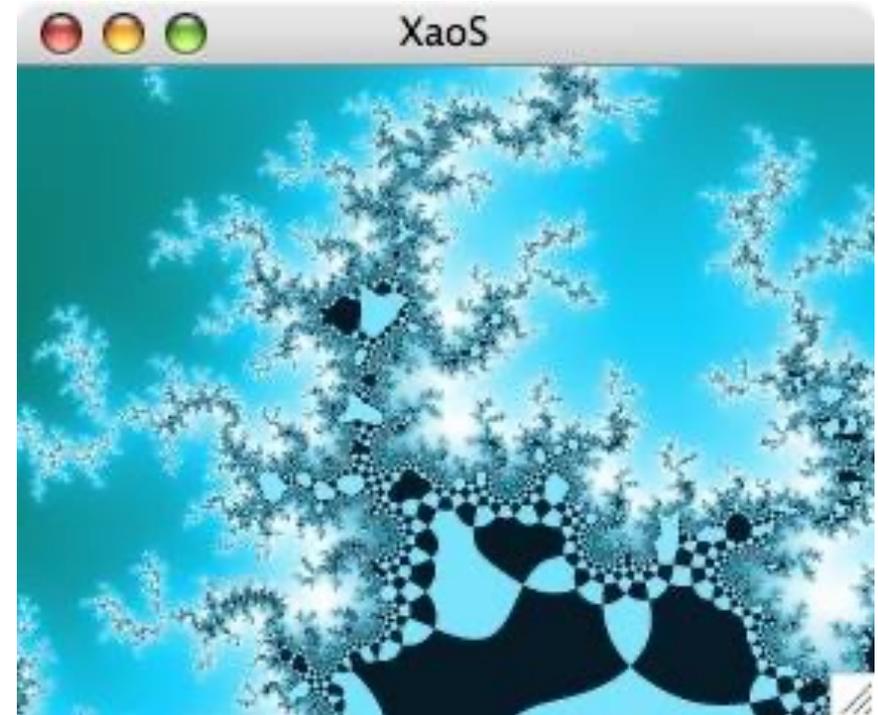
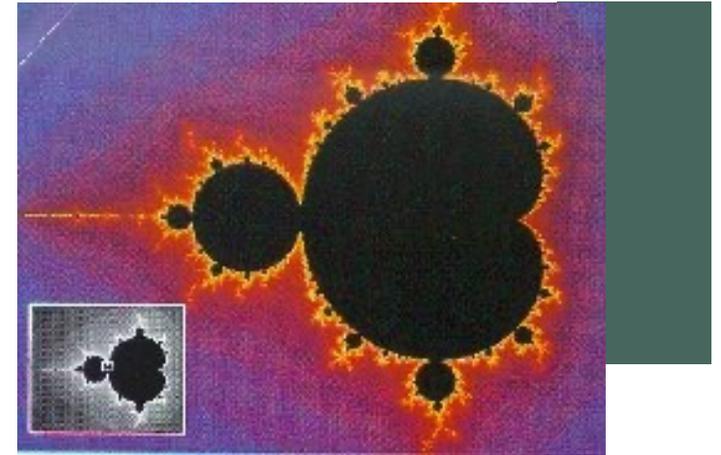
# MPEG-1 Audio Layer 3

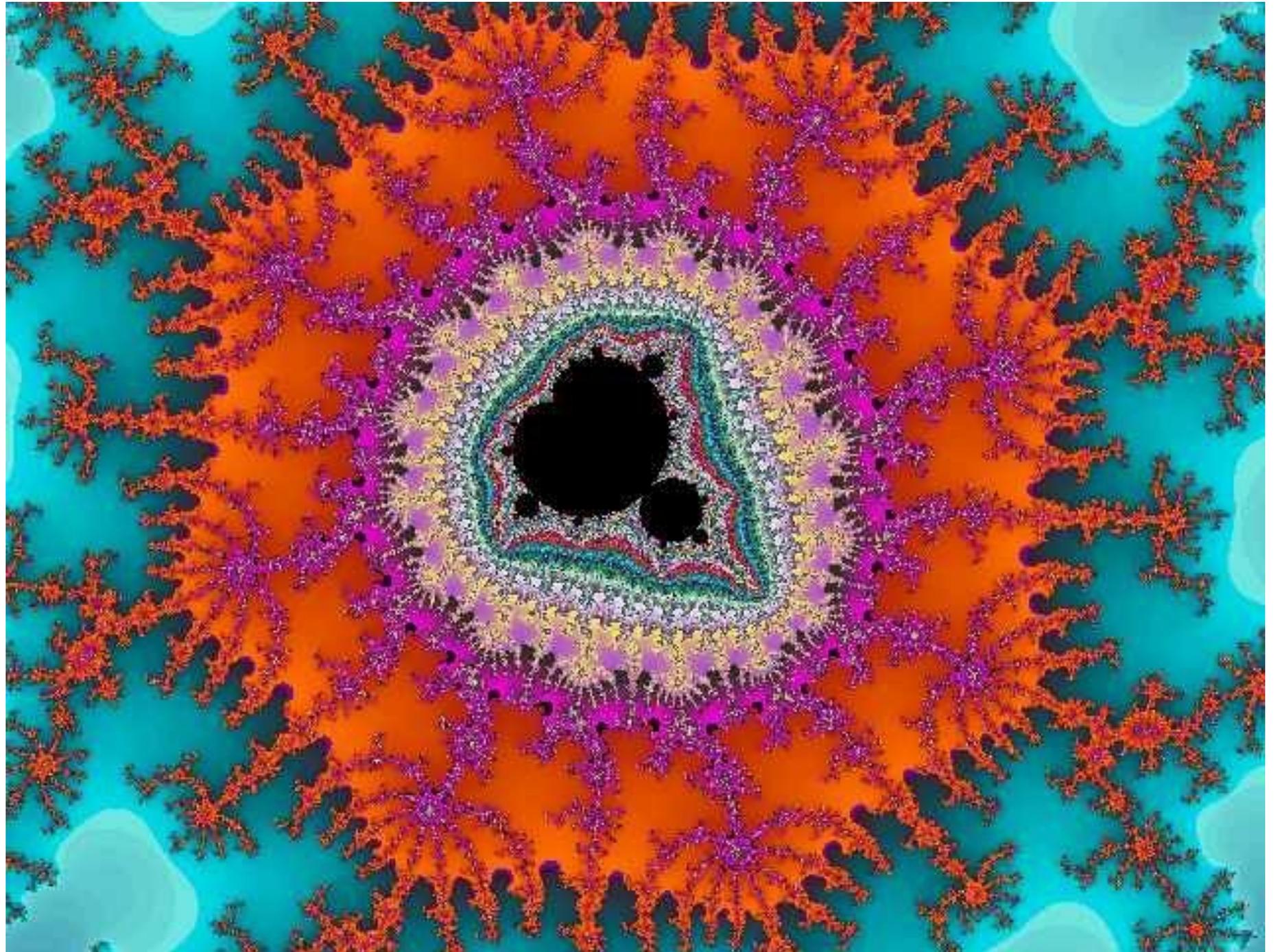


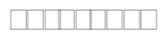
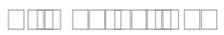
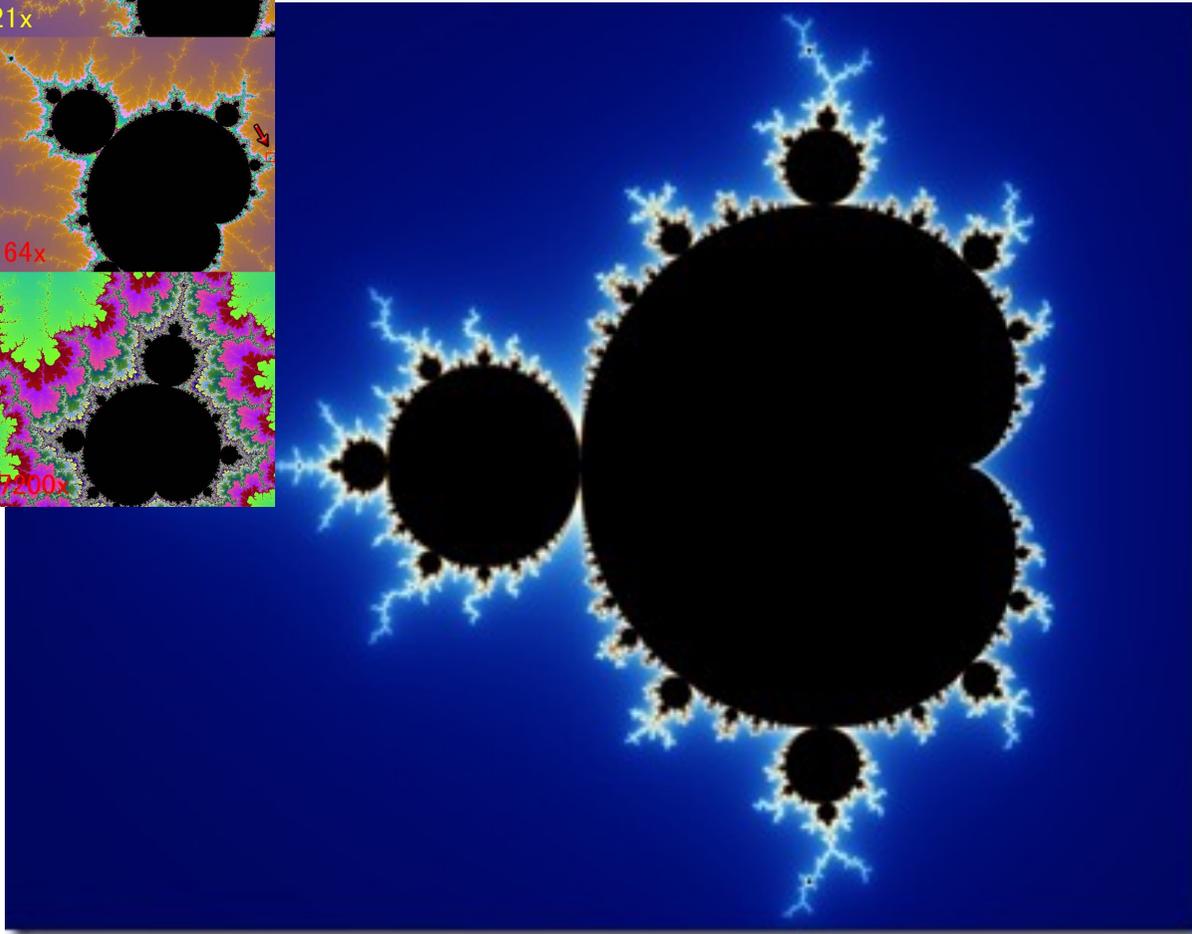
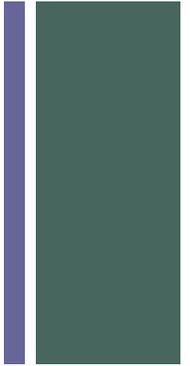
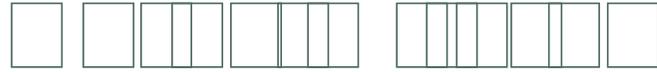
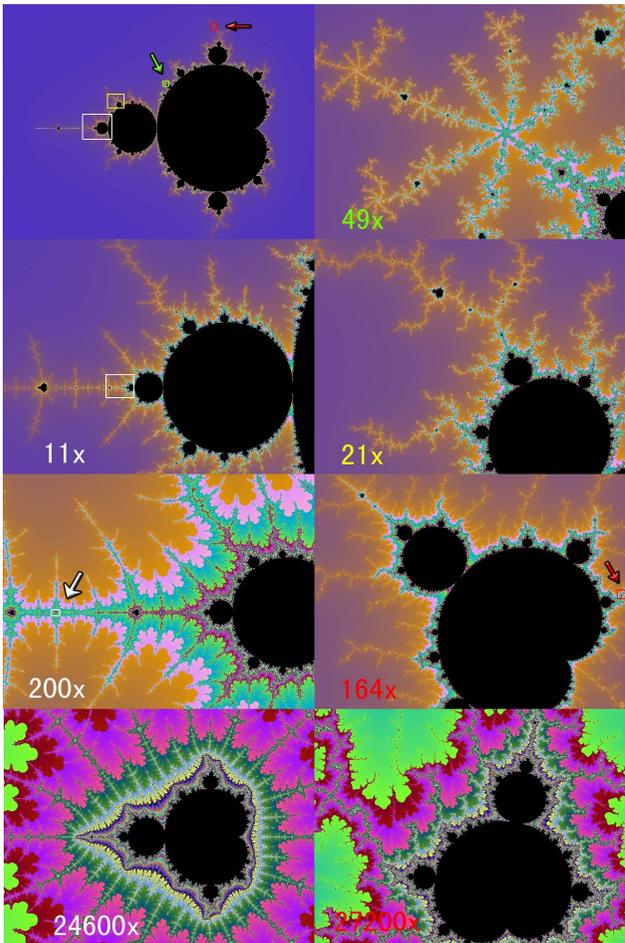




+







Pathological monsters! cried the terrified  
mathematician

Every one of them is a splinter in my eye

I hate the Peano Space and the Koch **Curve**

I fear the Cantor Ternary Set And the Sierpinski Gasket  
makes me want to cry

And a million miles away a butterfly flapped its wings

On a cold November day a man named Benoit  
Mandelbrot was born

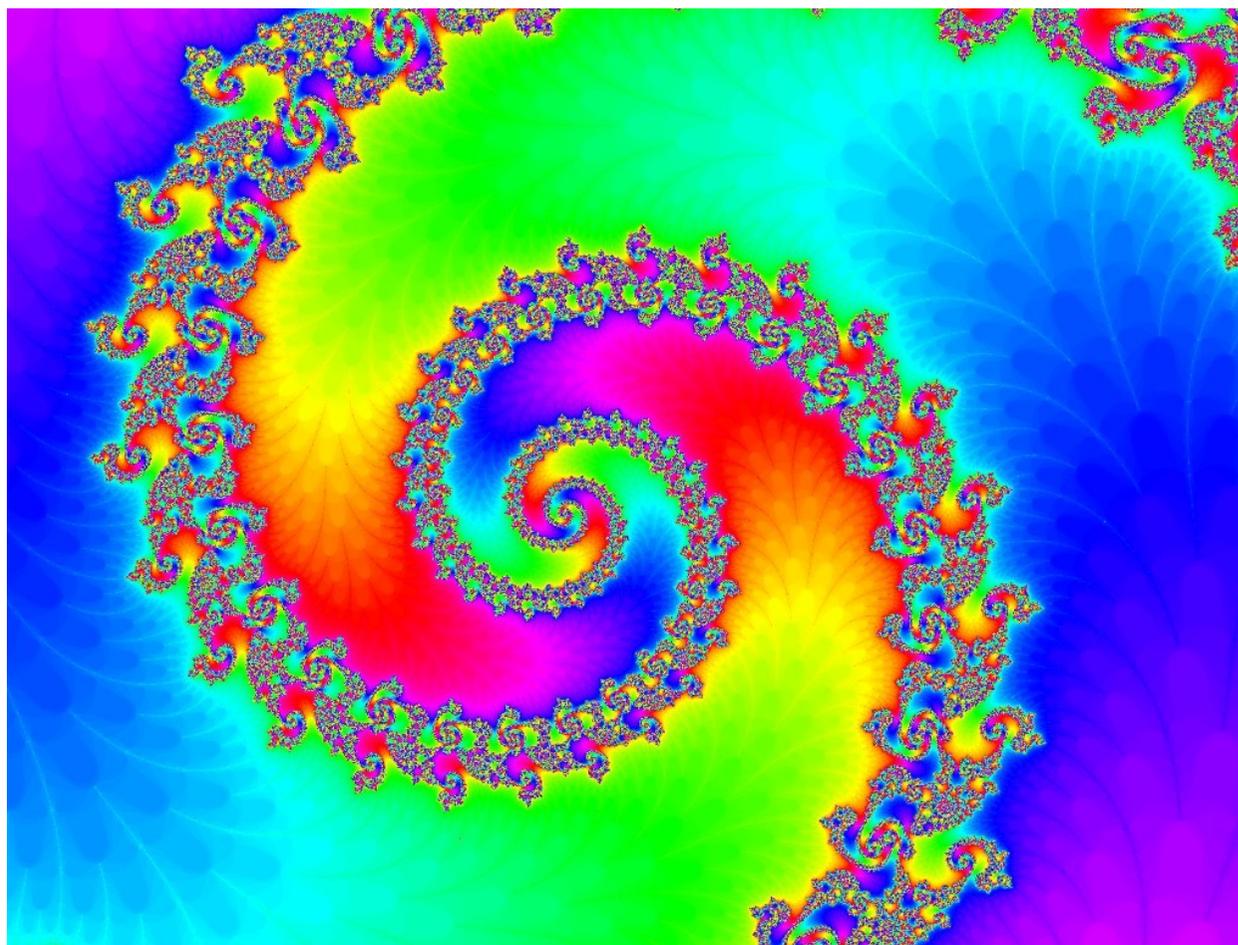
His disdain for pure mathematics and his unique  
geometrical insights  
Left him well equipped to face those demons  
down  
He saw that infinite complexity could be  
described by simple rules  
He used his giant brain to turn the game around  
And he looked below the storm and saw a vision  
in his head  
A bulbous pointy form  
He picked his pencil up and he wrote his secret  
down

Take a point called  $Z$  in the complex plane  
Let  $Z_1$  be  $Z$  squared plus  $C$   
And  $Z_2$  is  $Z_1$  squared plus  $C$   
And  $Z_3$  is  $Z_2$  squared plus  $C$  and so on  
If the series of  $Z$ 's should always stay  
Close to  $Z$  and never trend away  
That point is in the Mandelbrot Set

Mandelbrot Set you're a Rorschach Test on fire  
You're a day-glo pterodactyl  
You're a heart-shaped box of springs and wire  
You're one badass fucking fractal  
And you're just in time to save the day  
Sweeping all our fears away  
You can change the world in a tiny way

# Jonathan Coulton



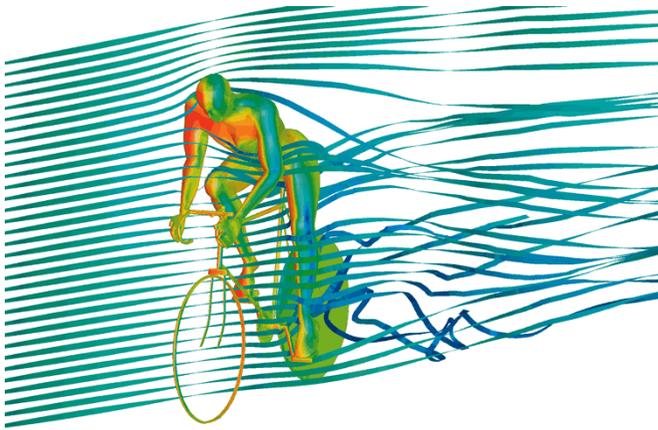




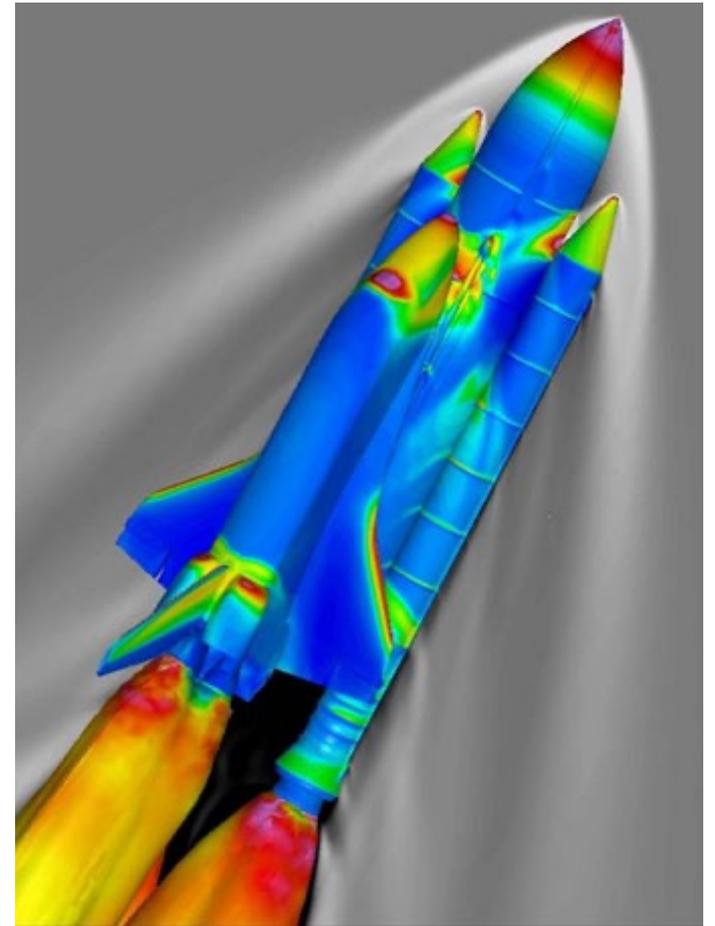
El tiempo



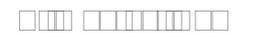
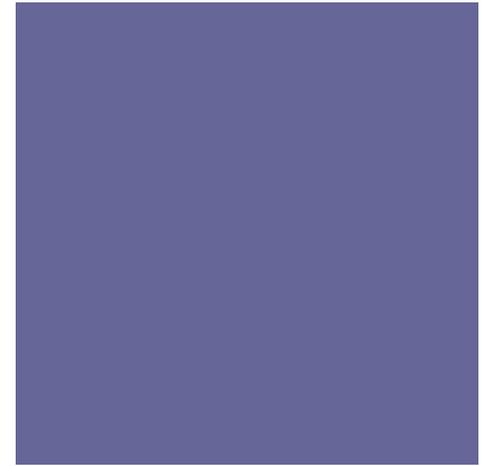
•Dinámica de fluidos

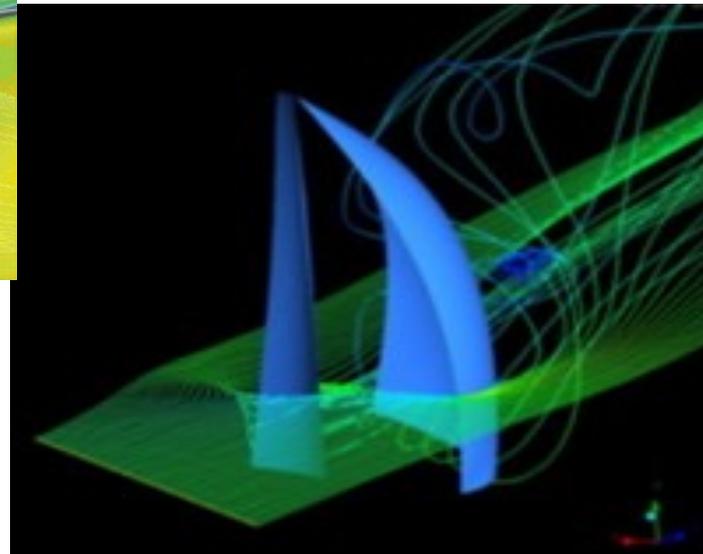
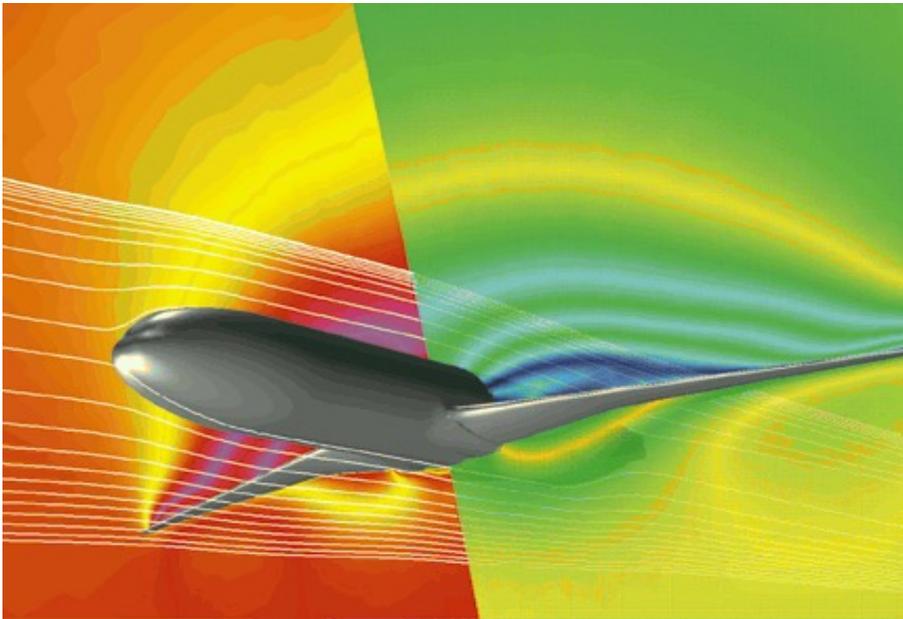
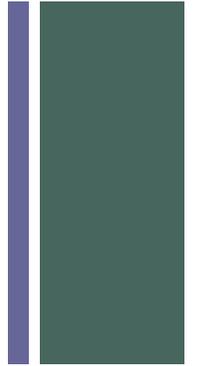


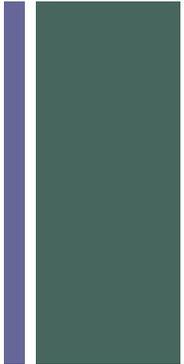
Dryden Flight Research Center ECN 3831 Photographed 1974  
B-727 vortex study NASA photo



•Ondas de choque

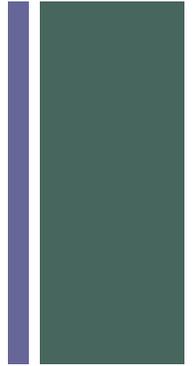






# Túnel de viento





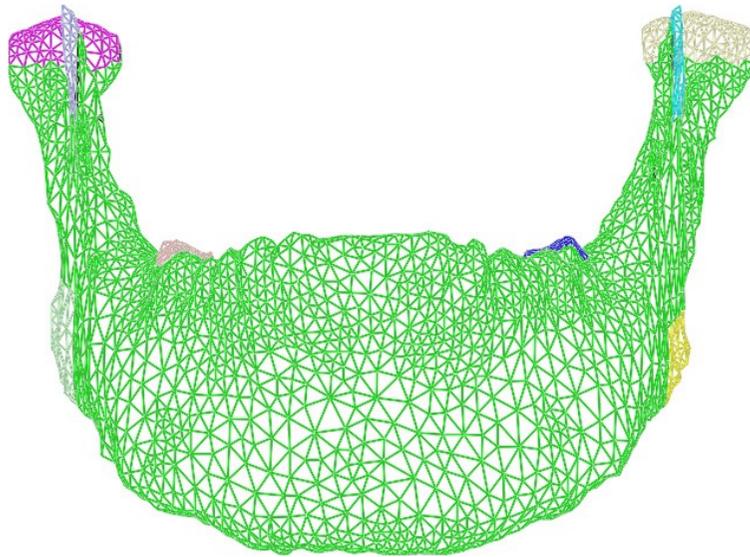
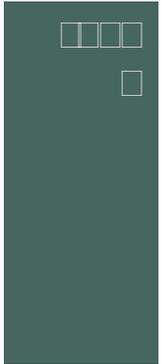
Simulación

Túnel de viento

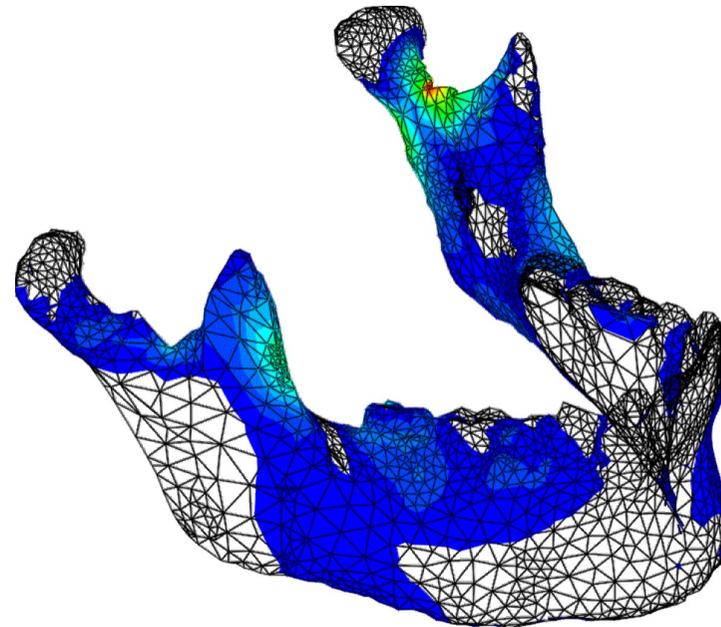




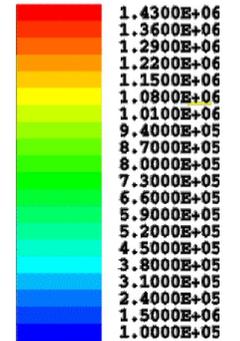
# Simulación numérica de esfuerzos

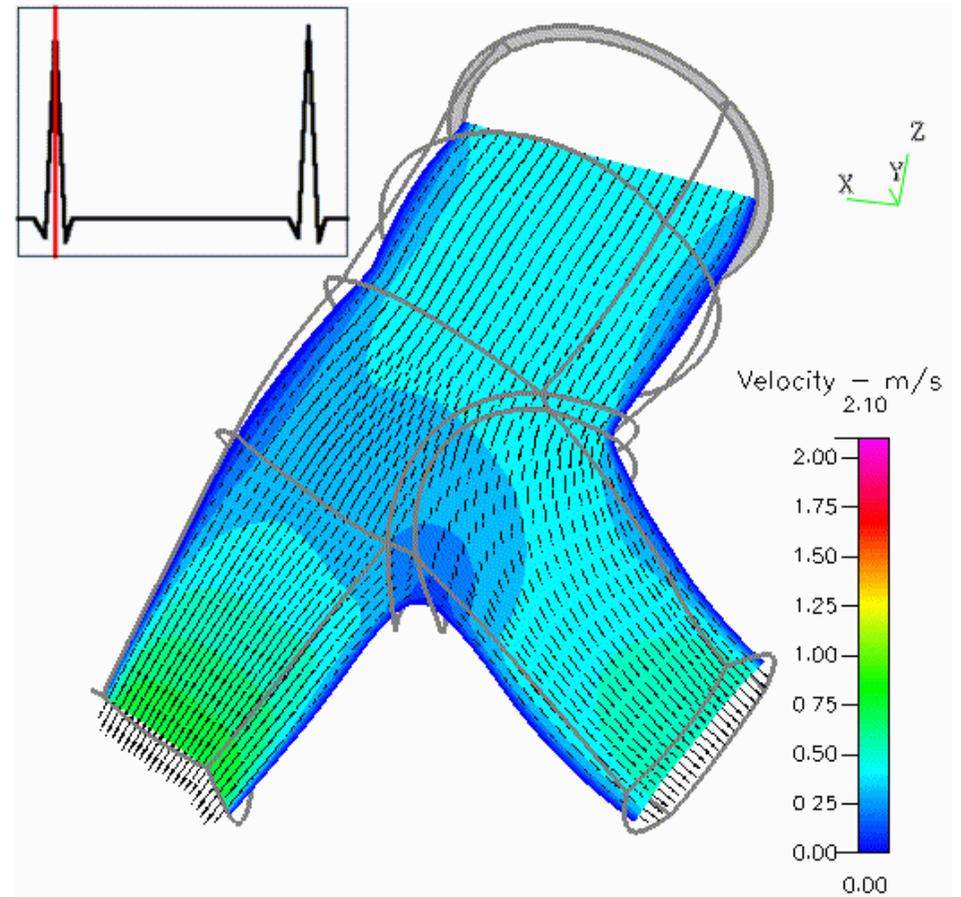
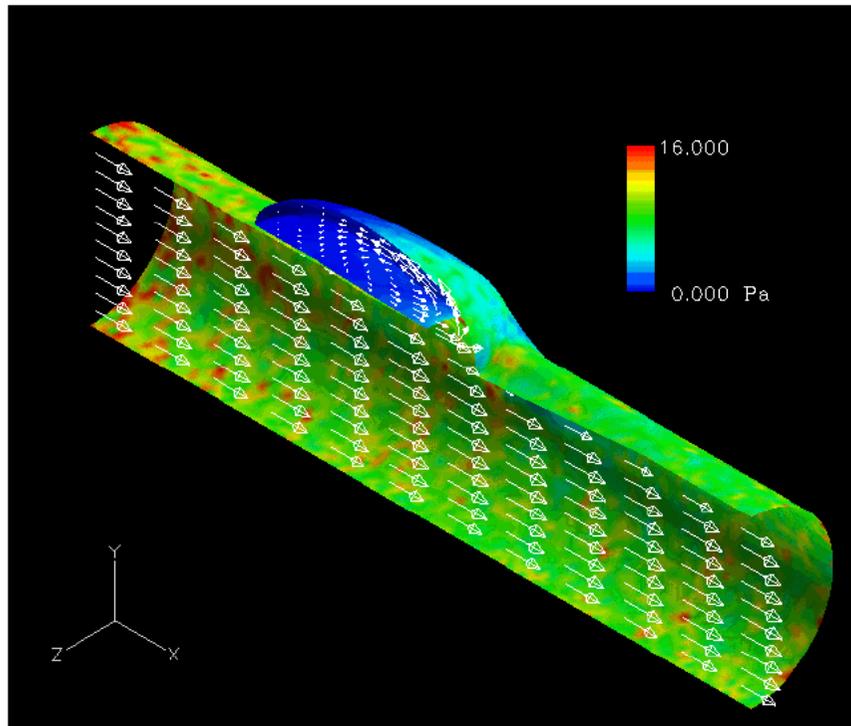
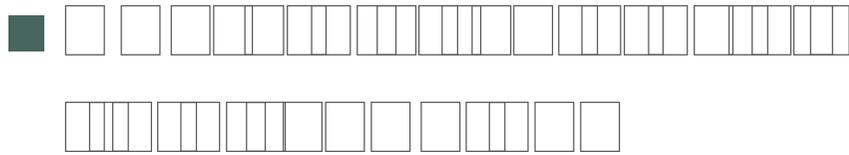


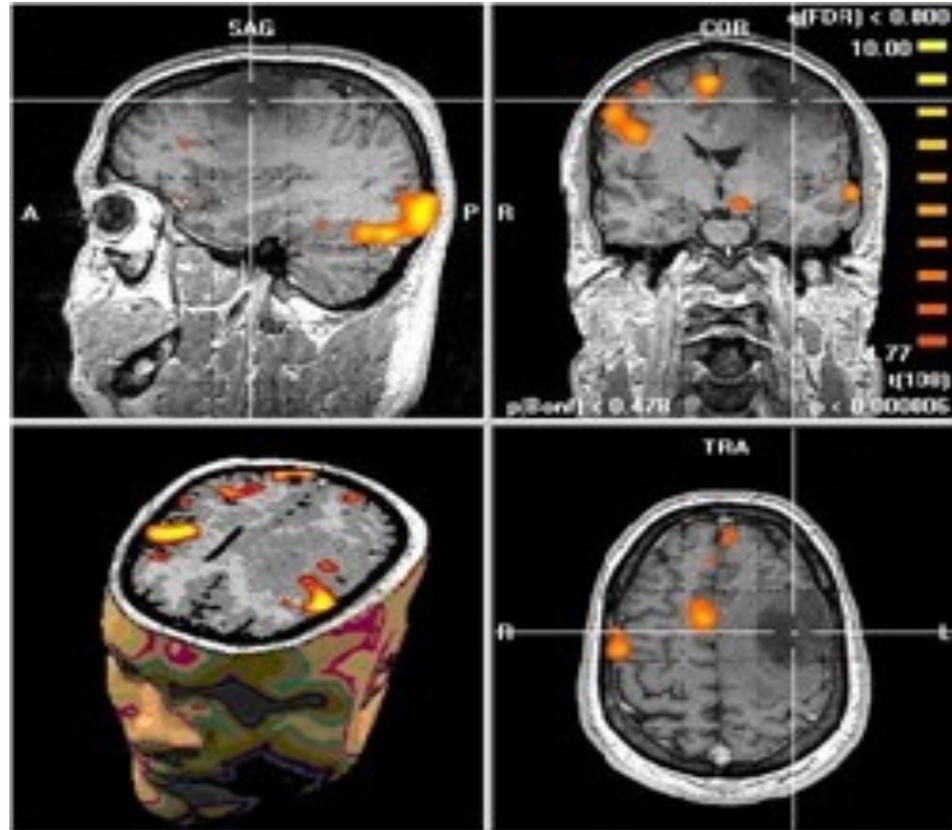
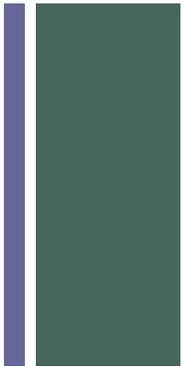
Deformación (amplificada)

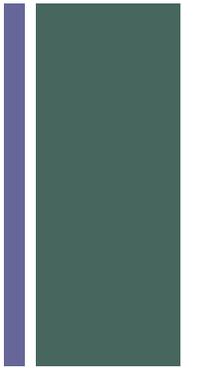


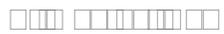
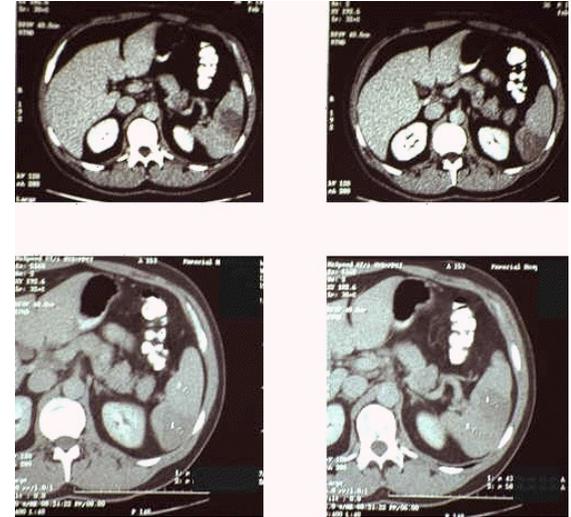
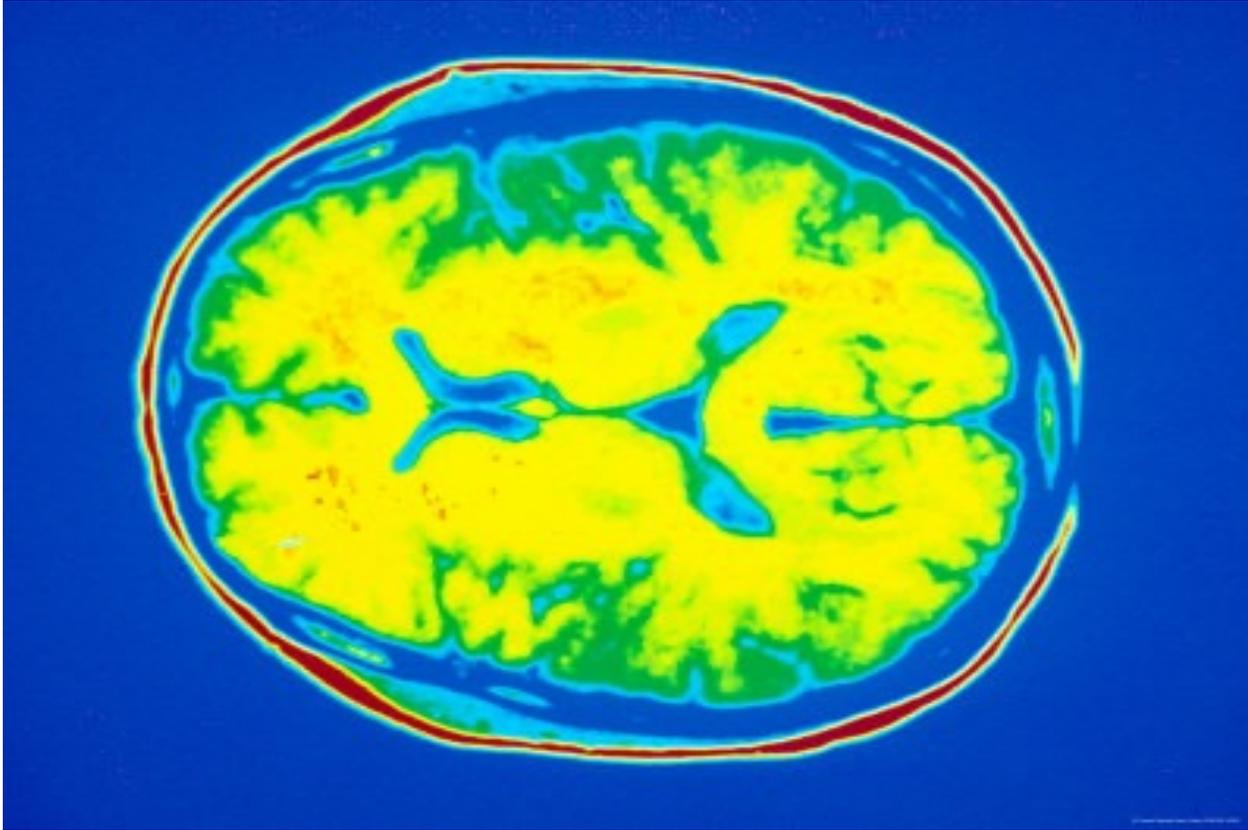
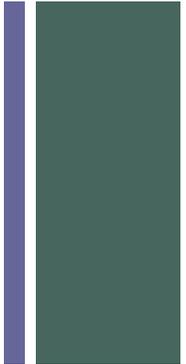
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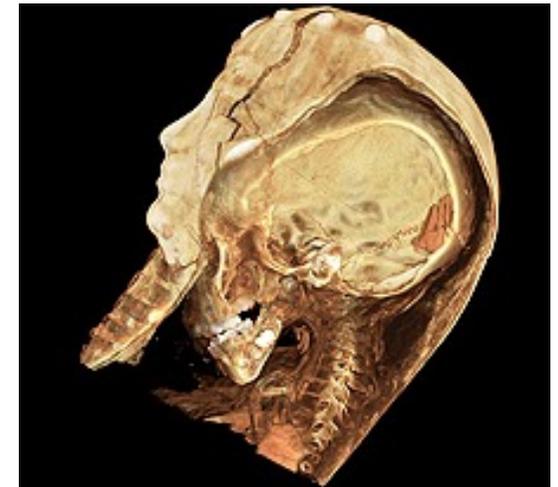
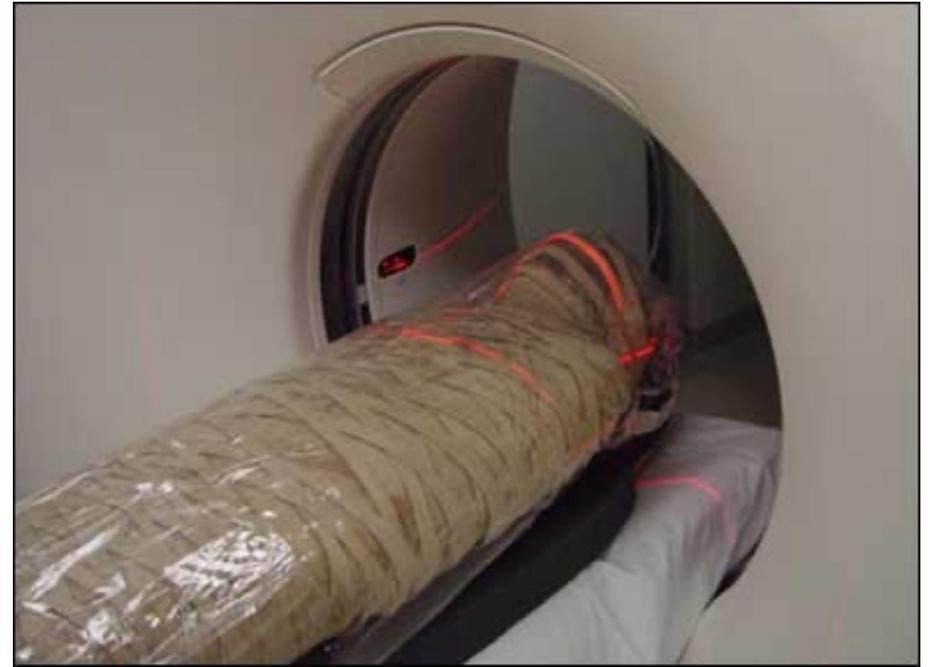
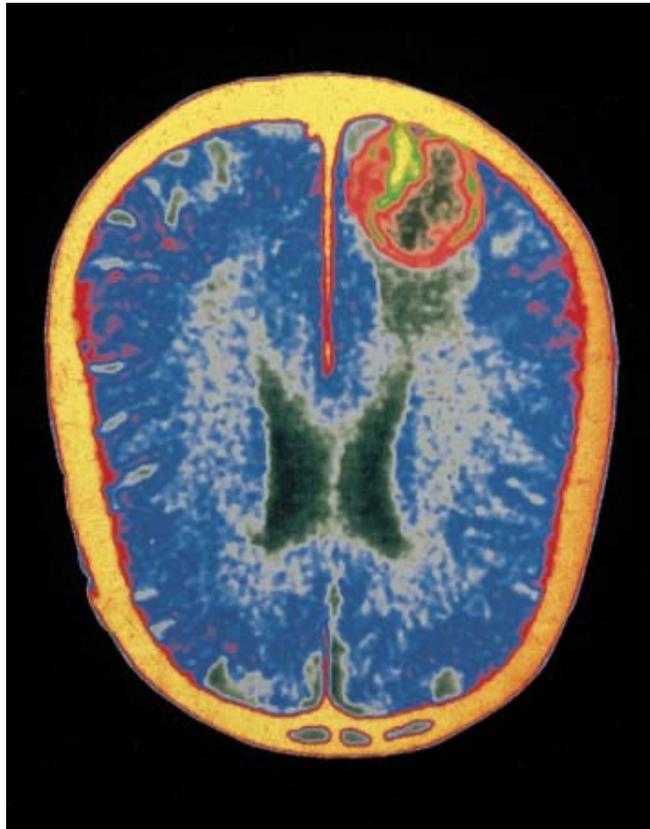




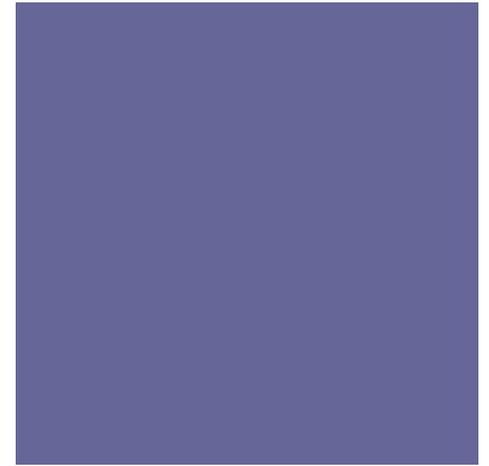


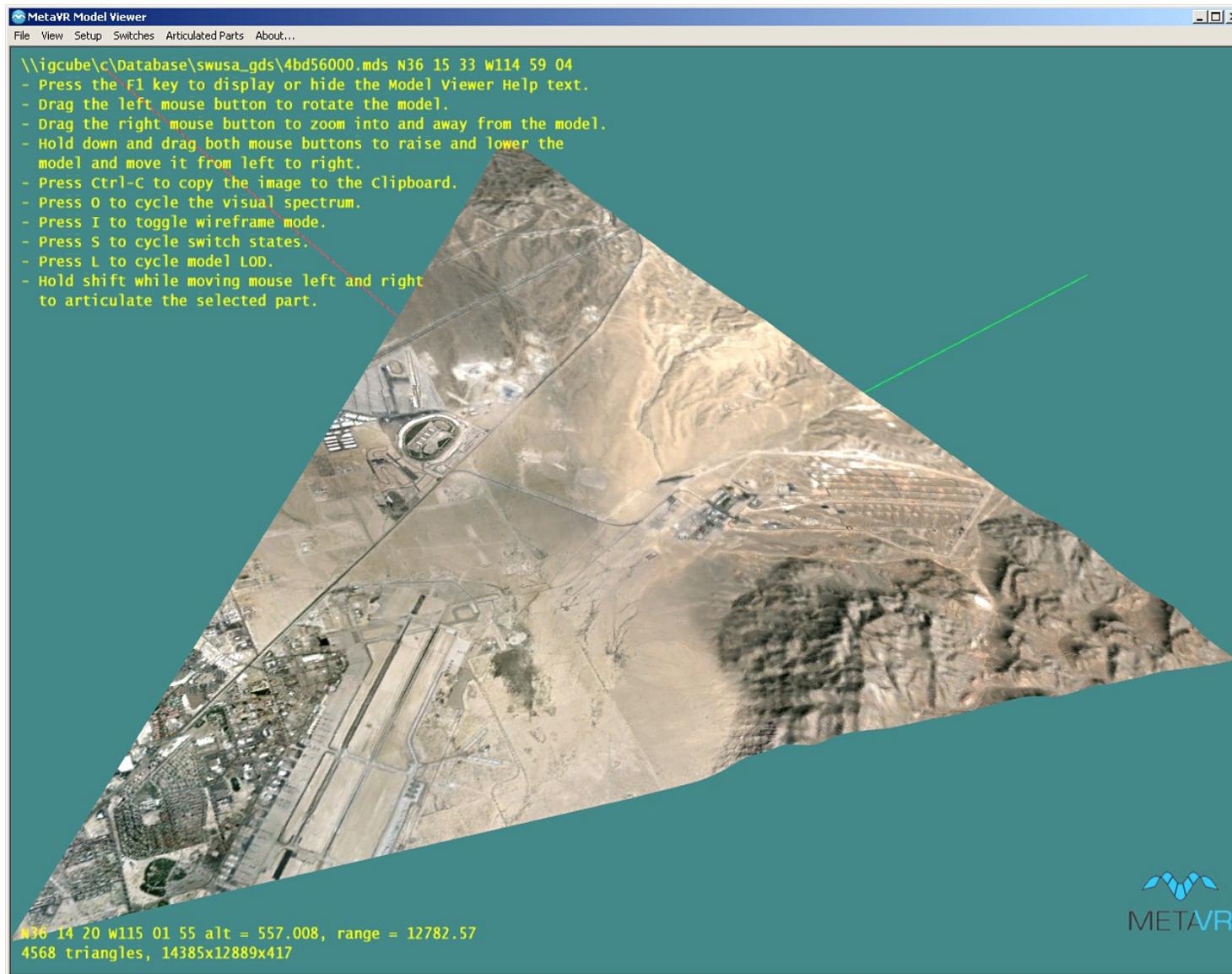


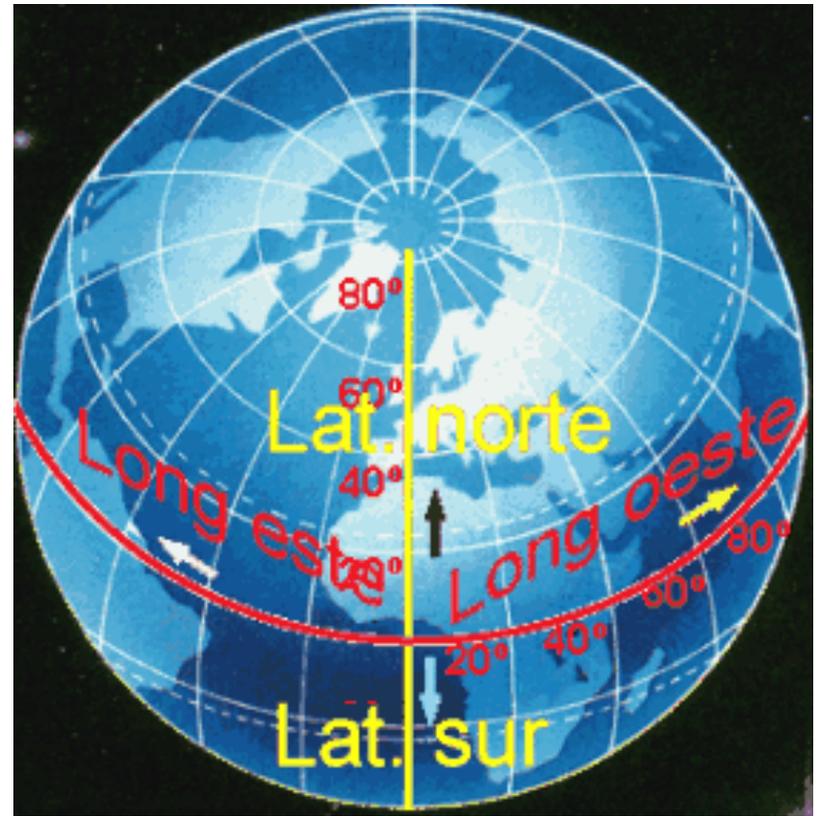
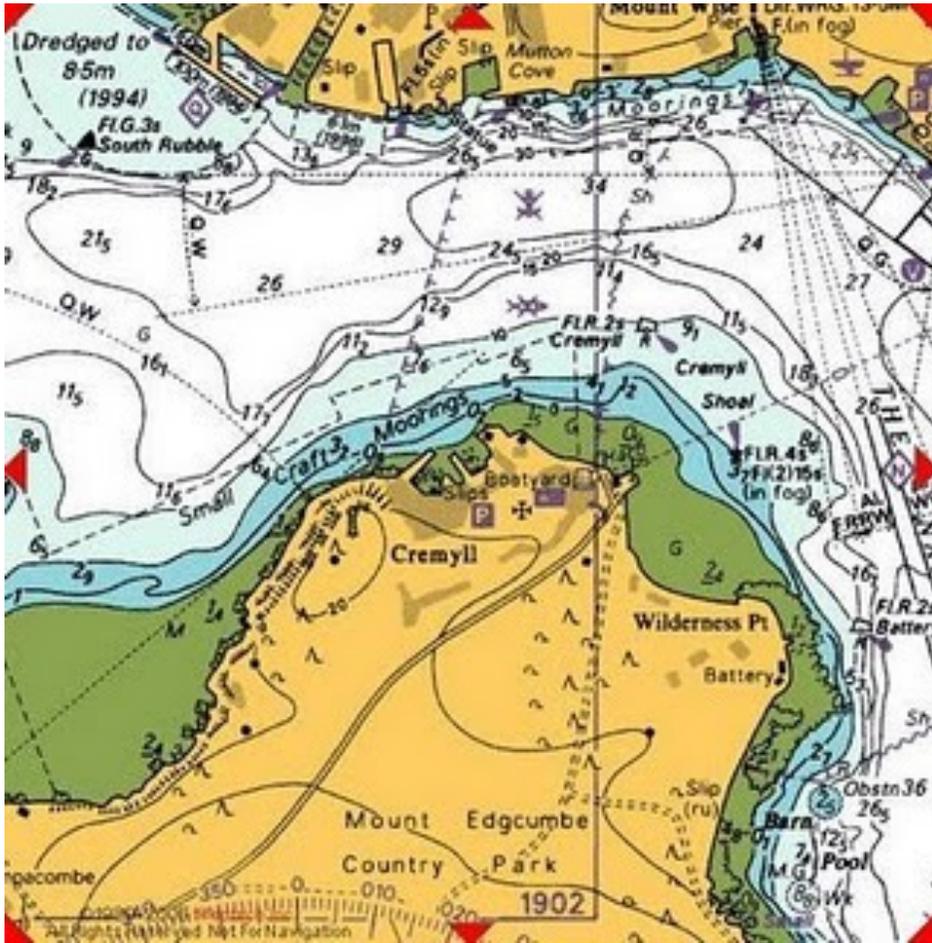
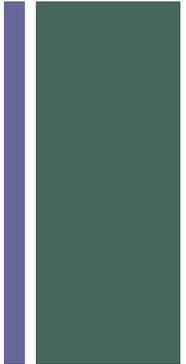


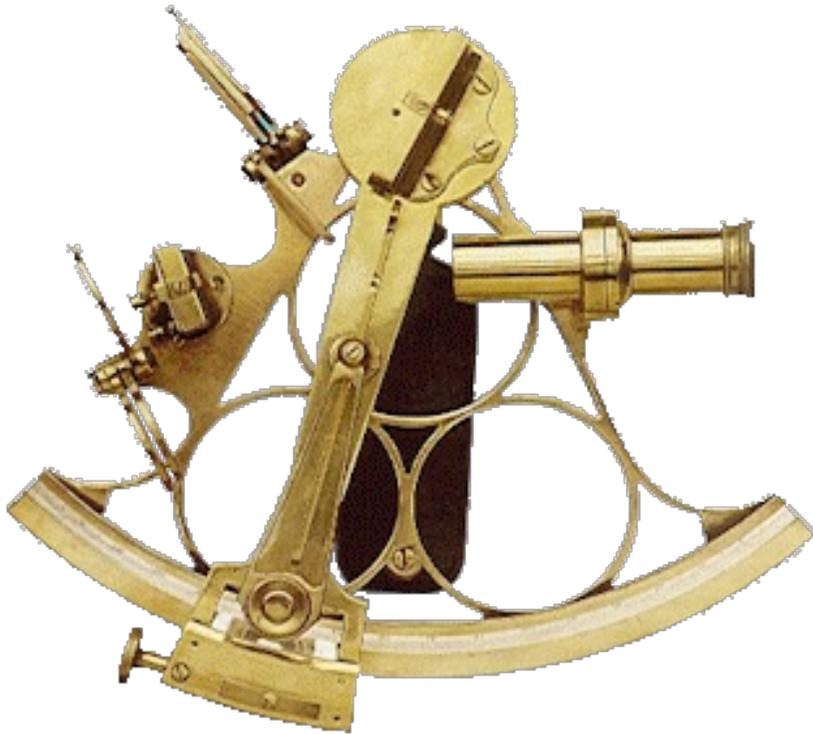


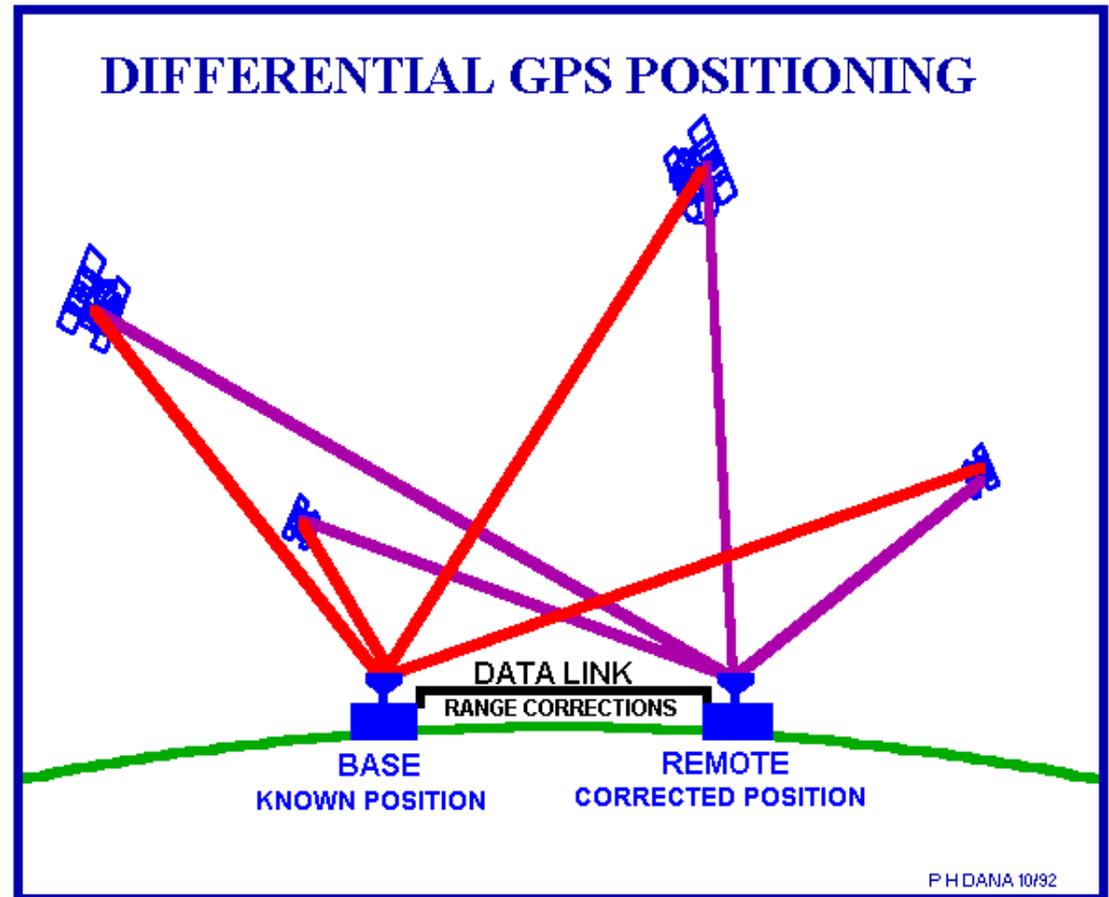
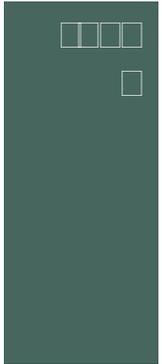


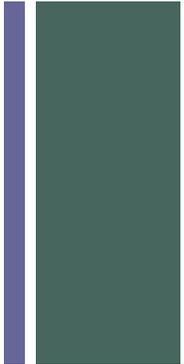
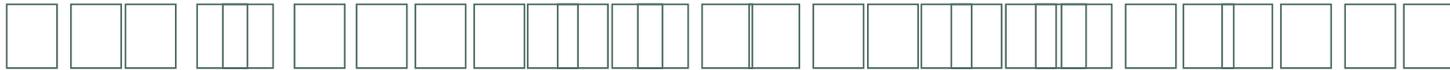




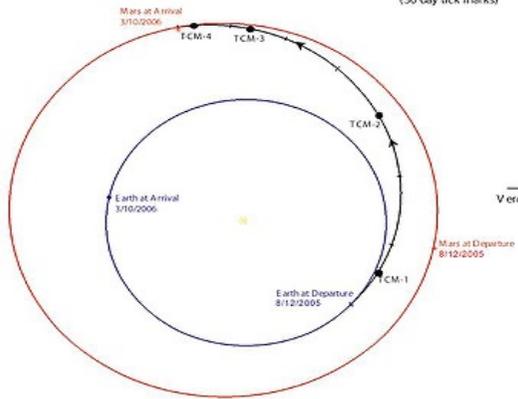




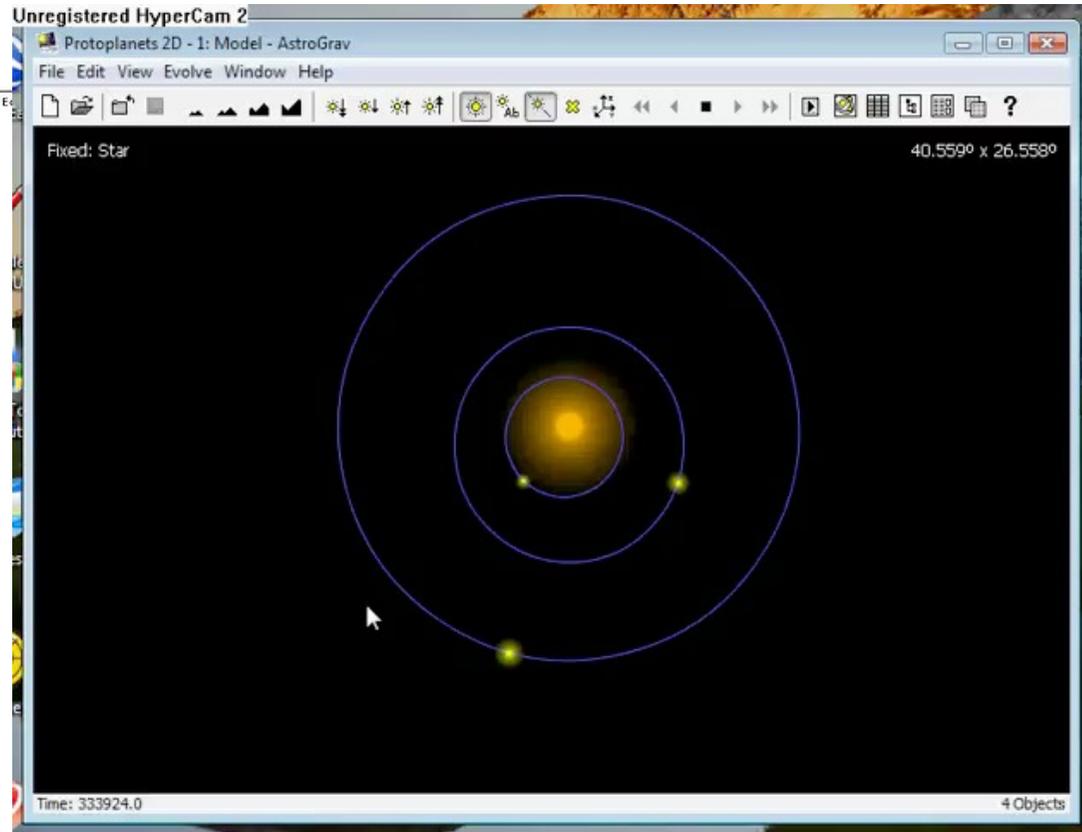


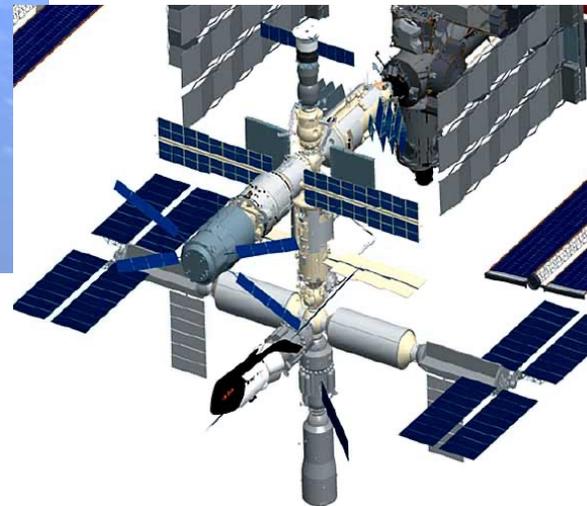


View from Trajectory North Pole  
(30 day tick marks)

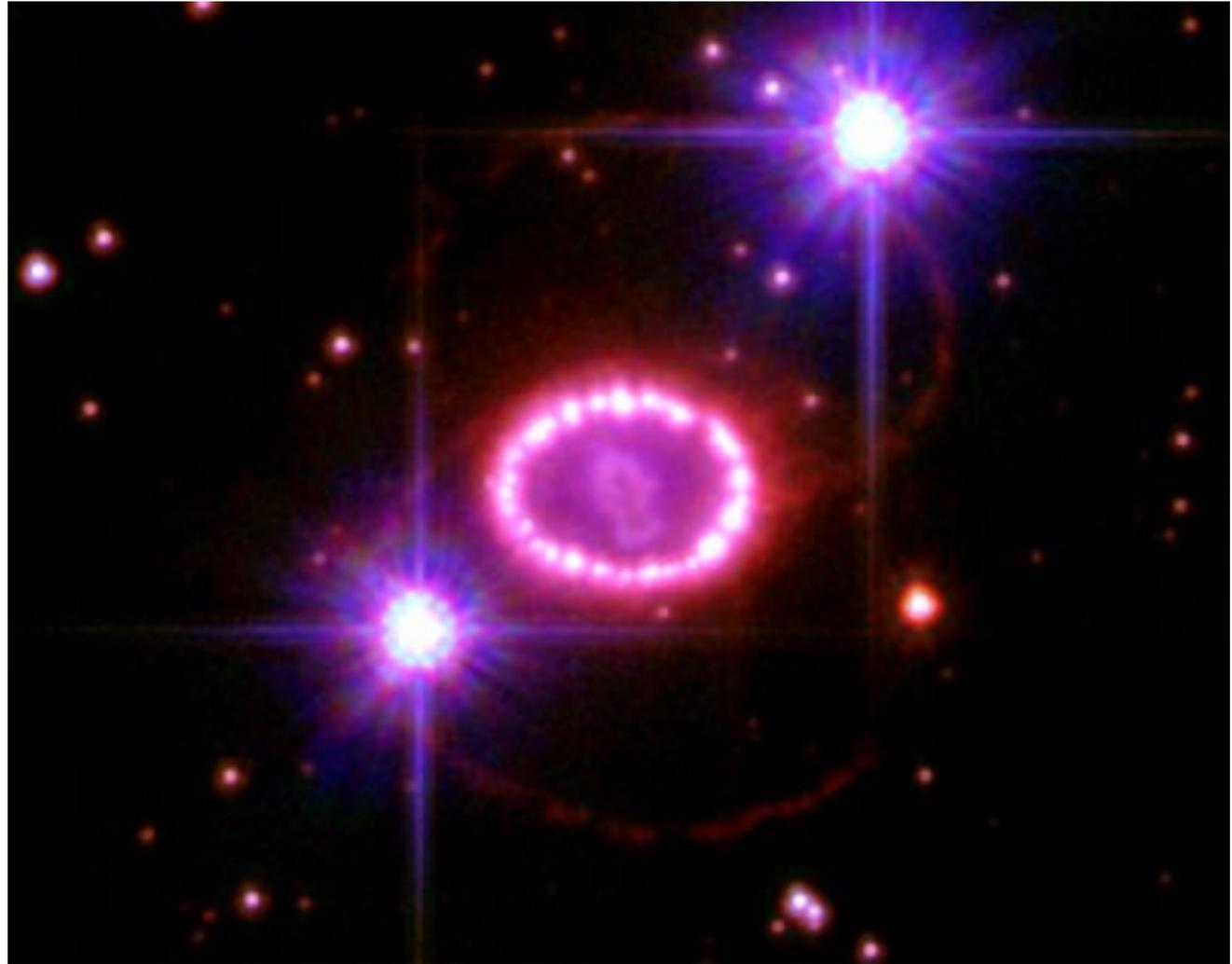
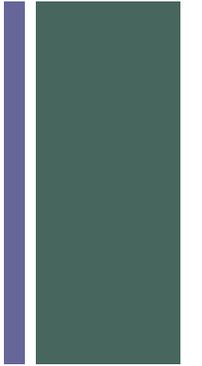


Vertical E







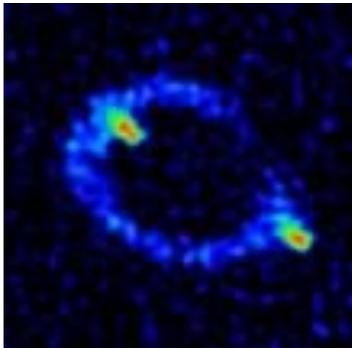


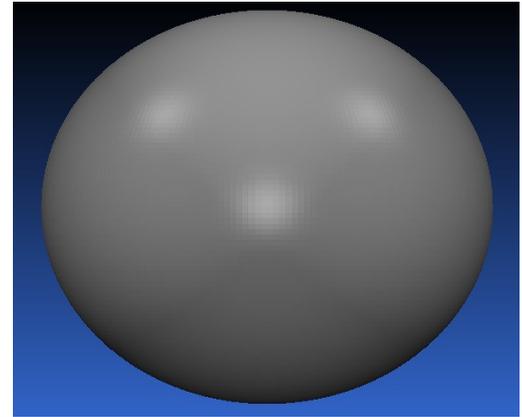
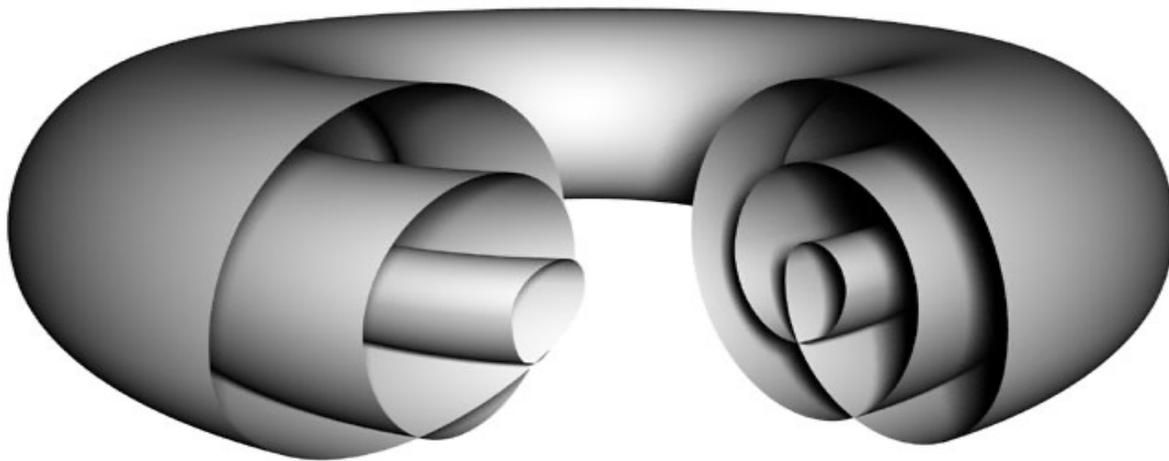
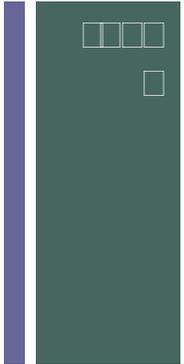


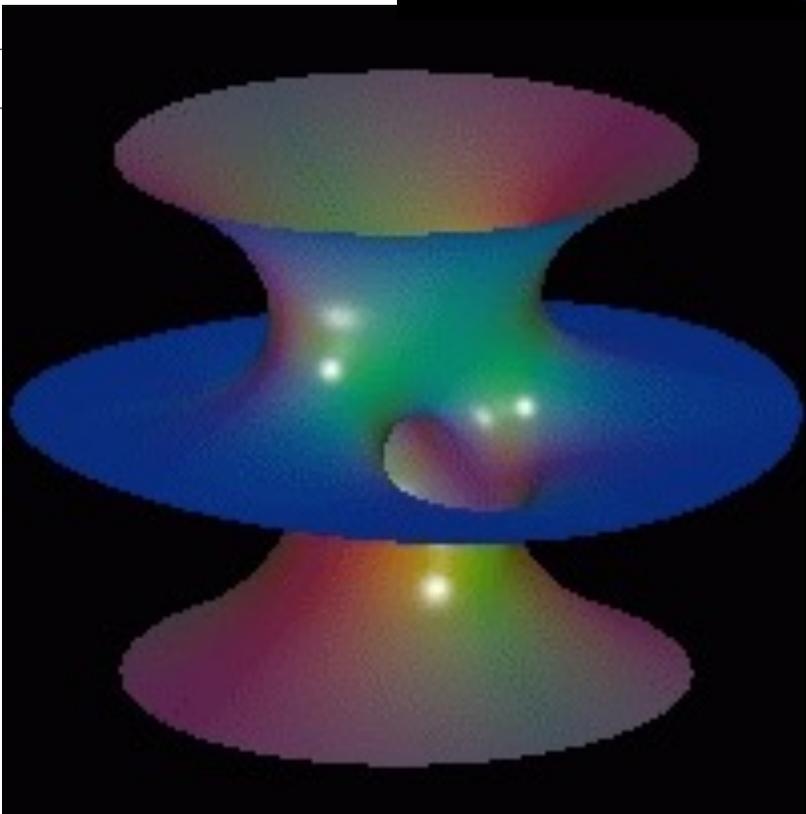
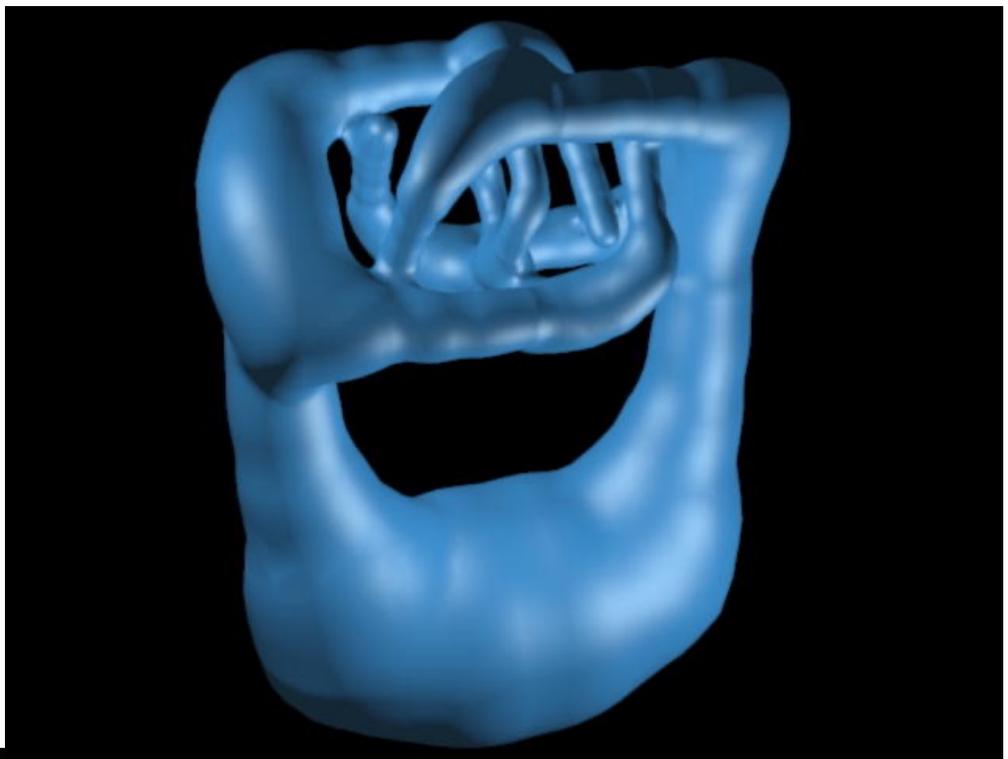
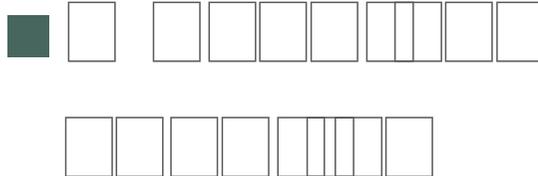
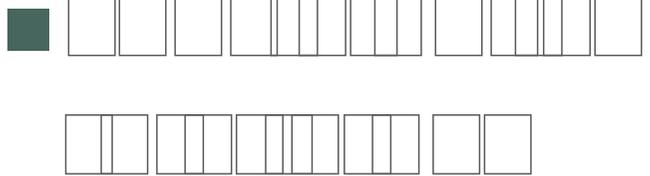
# Efecto lente provocado por el paso de la luz cerca de un objeto masivo



Quadruple lensed image of background object by foreground galaxy  
Hubble Space Telescope - NASA







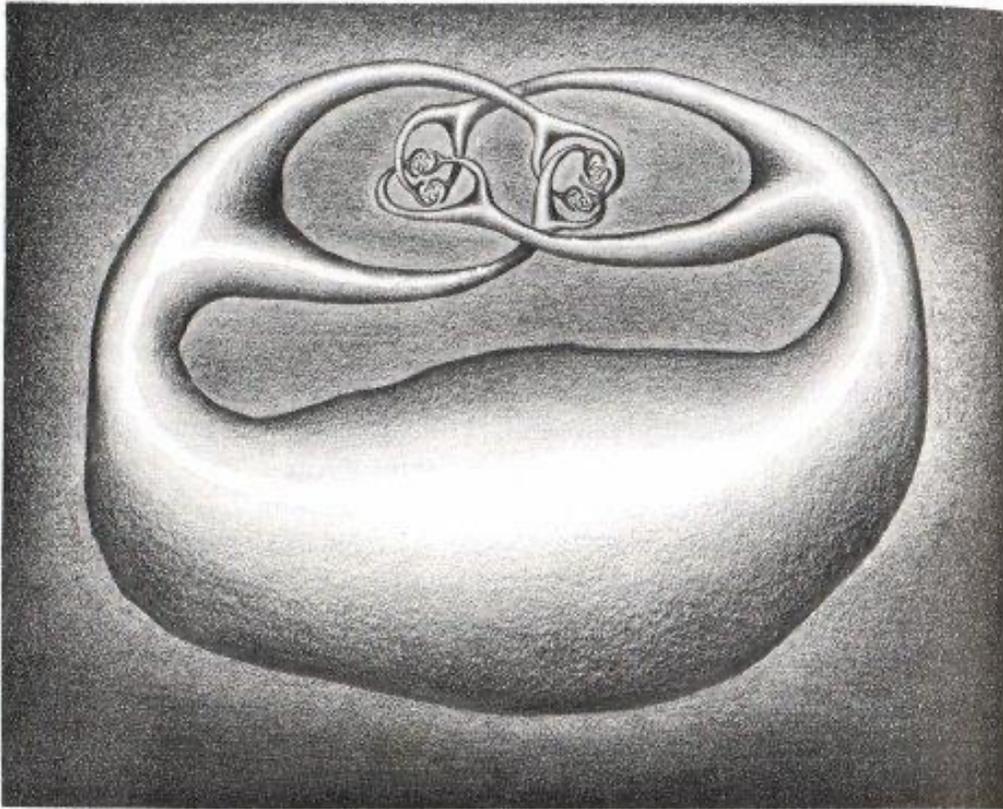
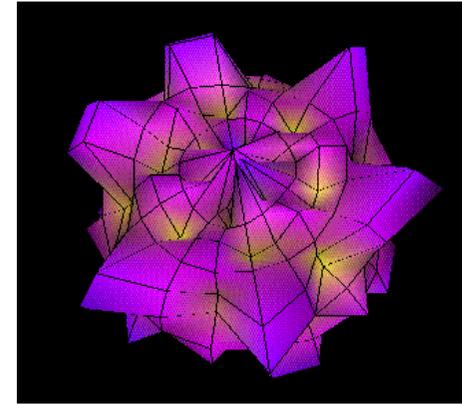
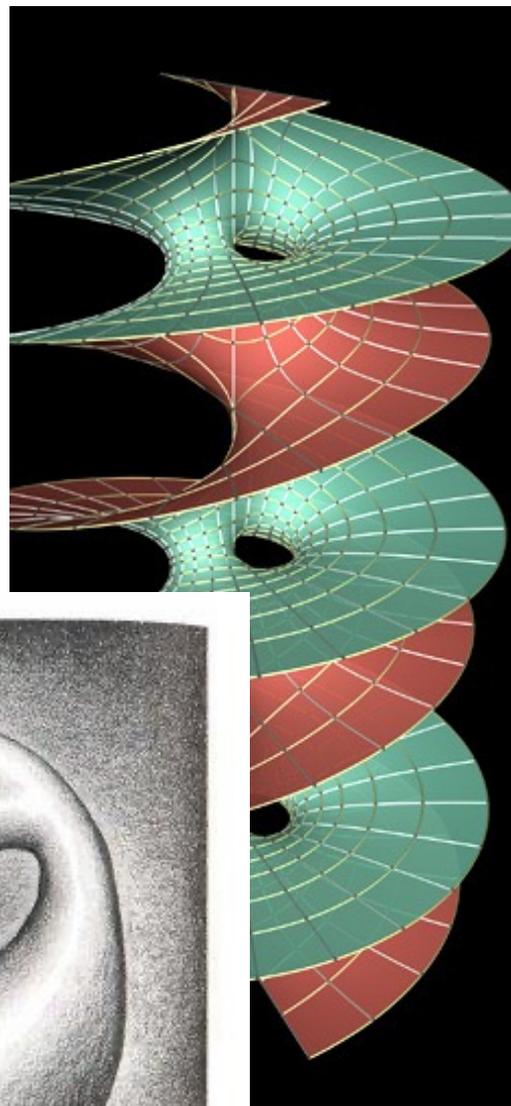
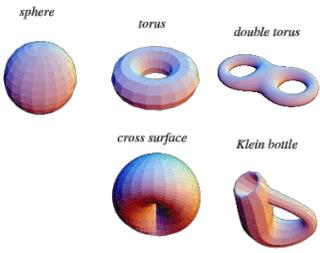
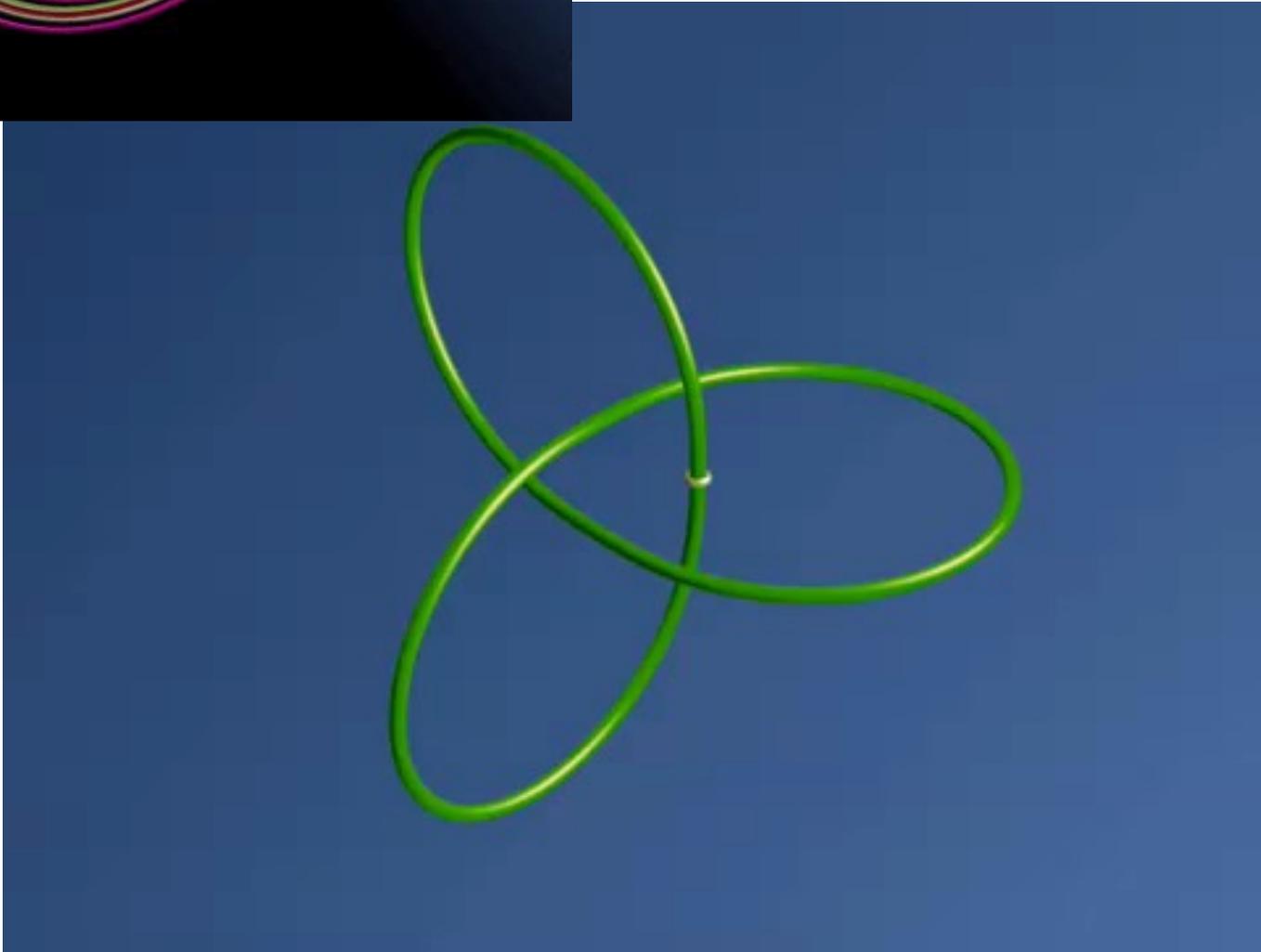
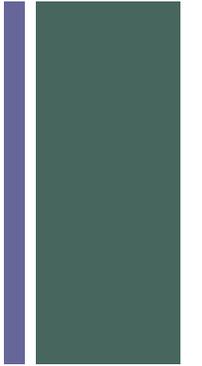
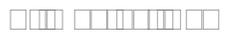
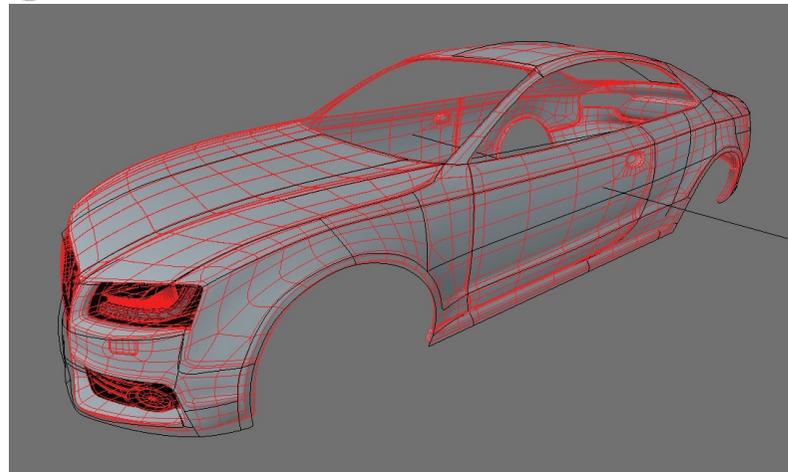
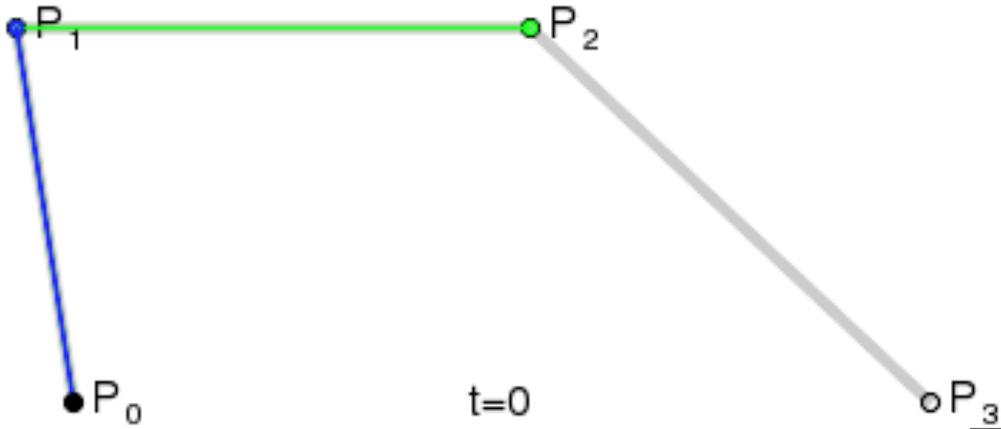
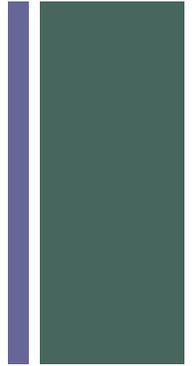


FIG. 4-11. The Alexander horned sphere.

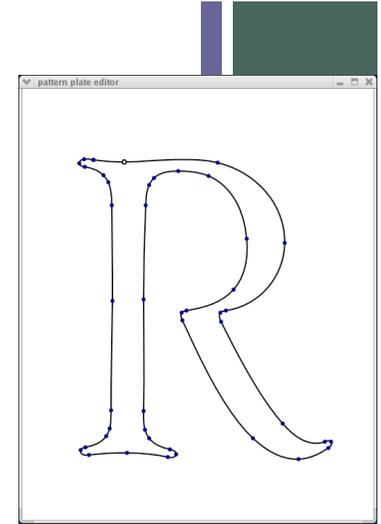








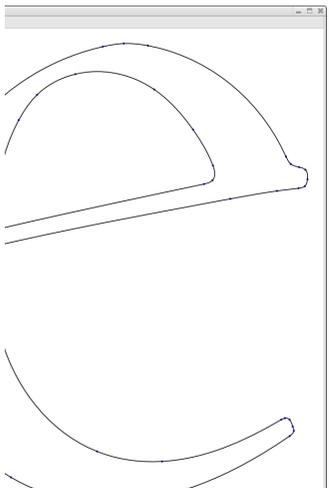
# + **Diseño geométrico asistido por ordenador (CAD)**

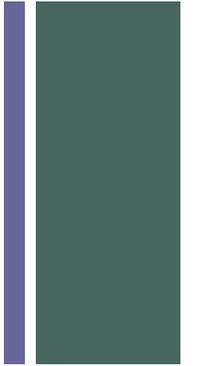
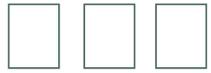


- 1934 *Kwanon* | Il logo inciso Kwanon venne usato sui modelli e i prototipi di fotocamere, ma mai utilizzato sul mercato.
- 1935 *Canon* | Il logo Canon viene registrato come marchio. Il concept della sua grafica base inizia a formarsi.
- 1953 **Canon** | Il logo subisce una prima rifinitura, che ne uniforma ed equilibra l'aspetto.
- 1956 **Canon** | Il logo attuale, frutto di ulteriore restyling.

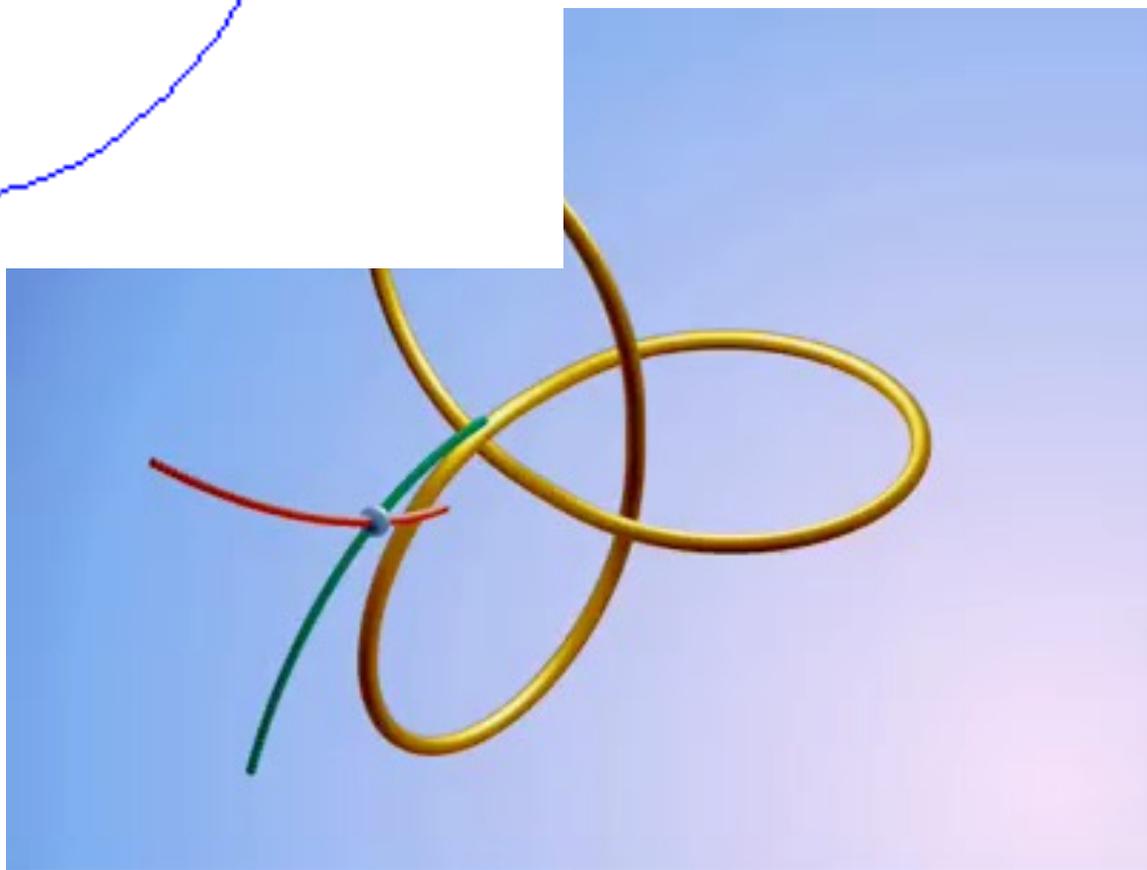
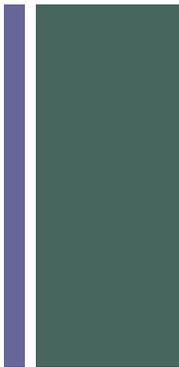
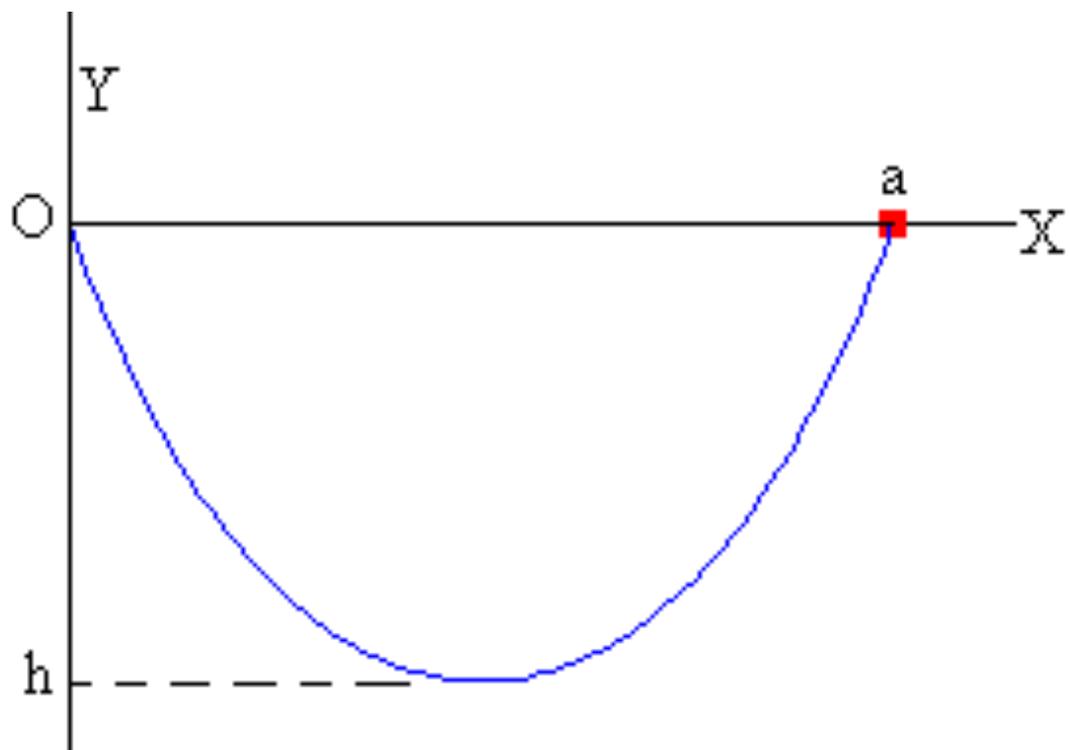
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**Q q**





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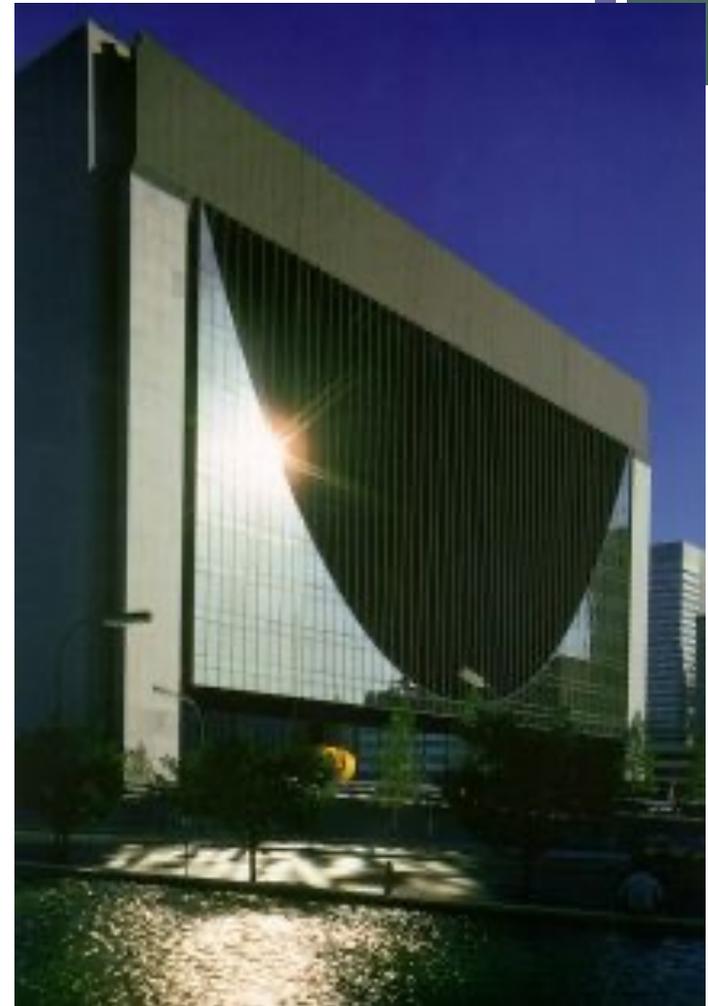
*"Gaudi House"*

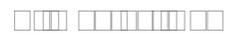
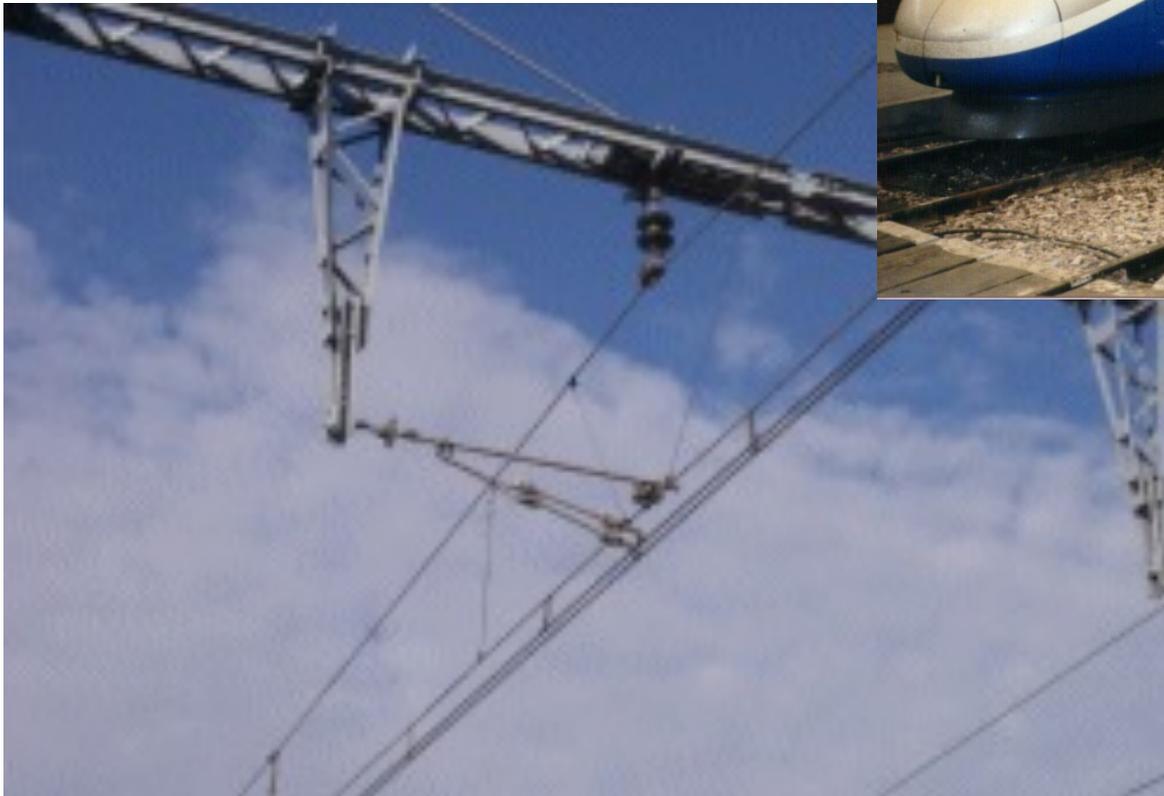
Sept. 2005

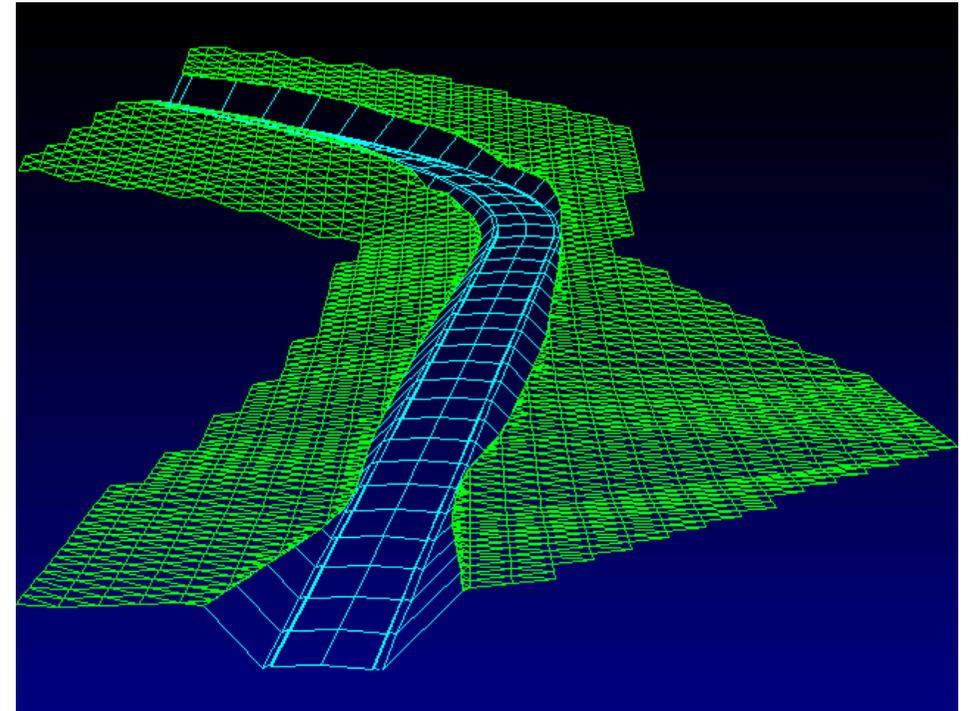




**Federal Reserve Bank of Minneapolis**  
**Architect:**  
**Gunnar Birkerts & Associates**



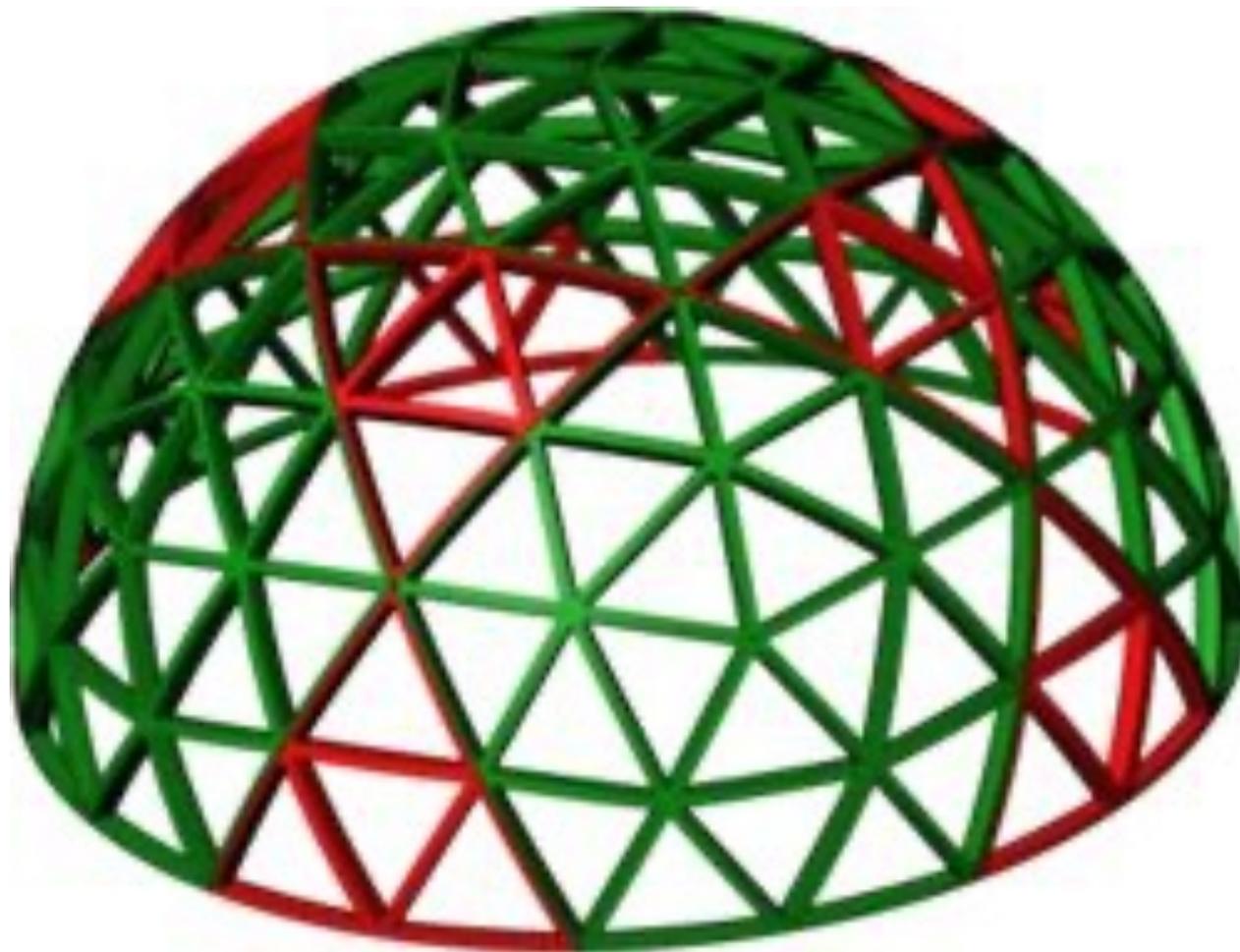




- Curvas que permiten pasar suavemente de una recta a una circunferencia. De este modo podemos girar el volante del coche y movernos a velocidad constante al entrar en la curva.

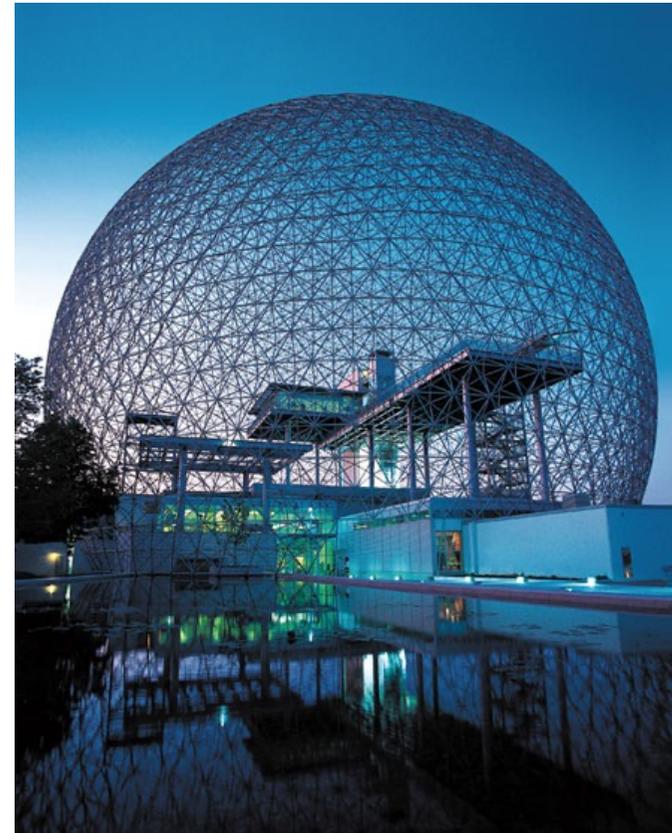
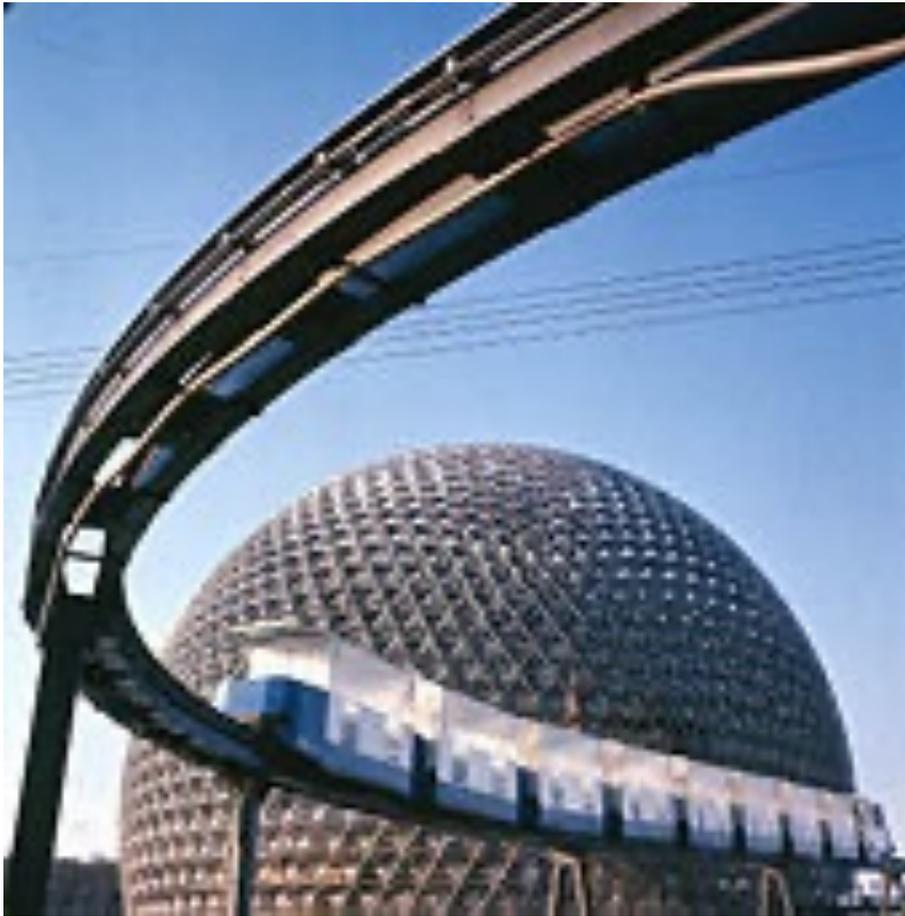


# Richard Buckminster Fuller (1895 - 1983)

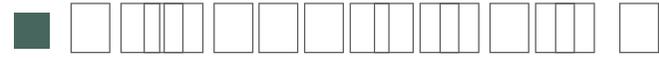


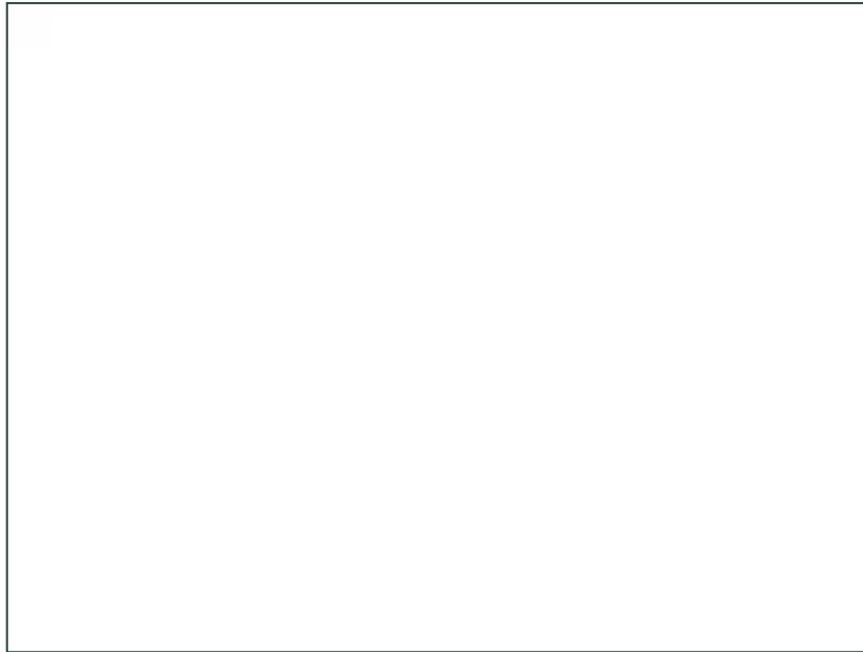


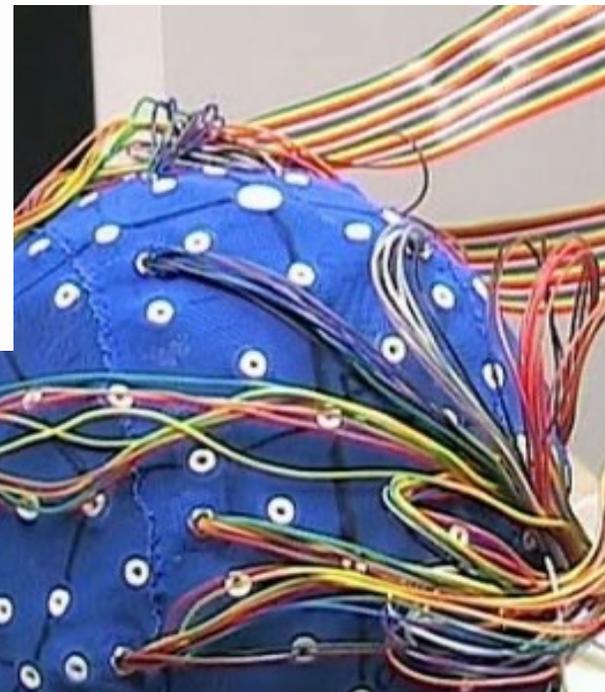
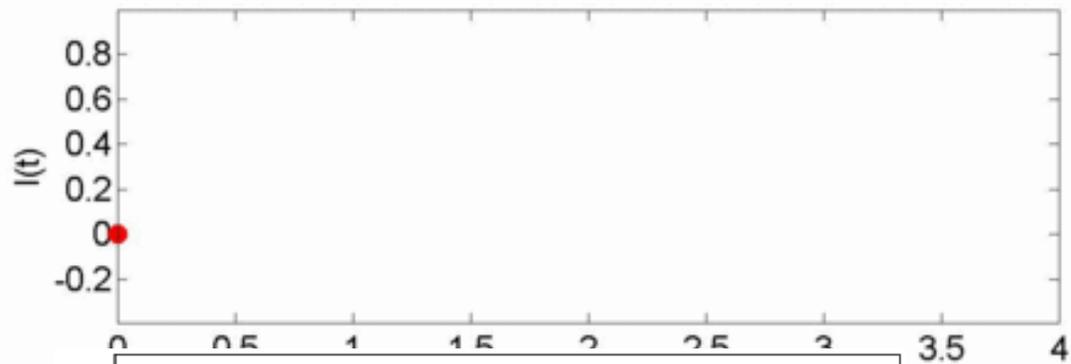
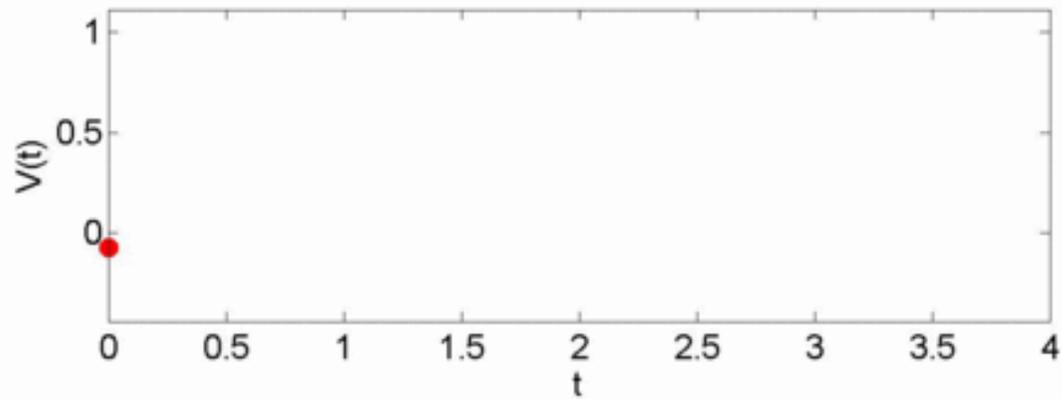
# Montreal, Canadá











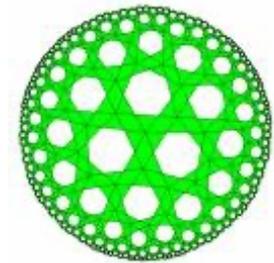
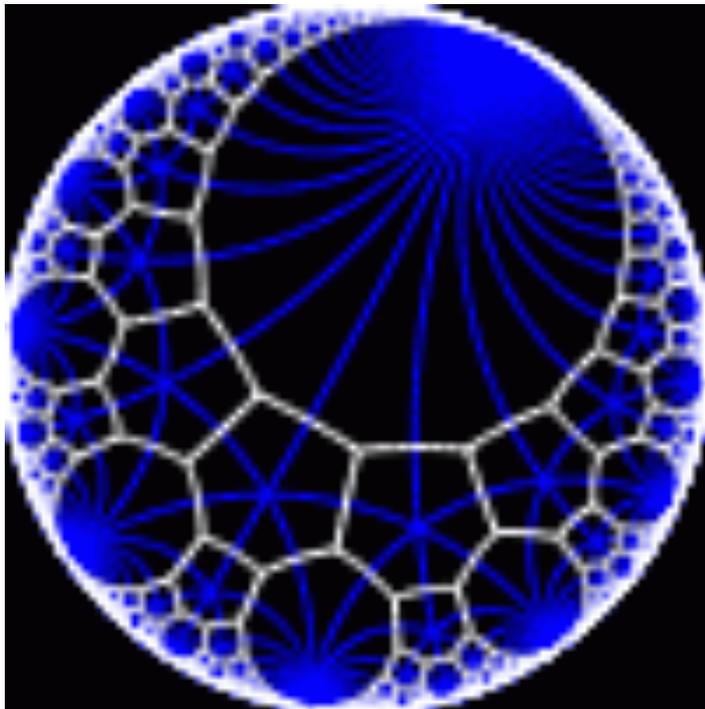
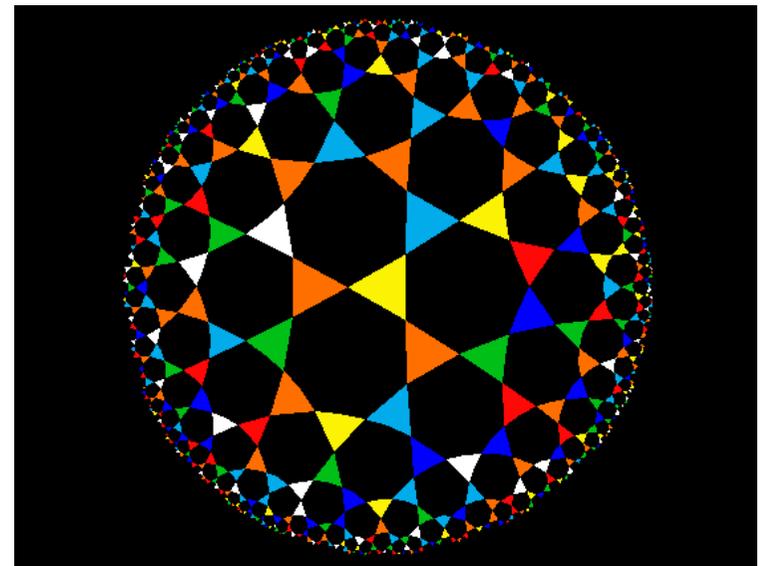
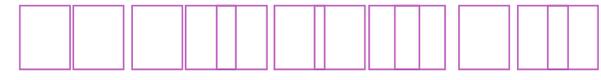
□□

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$x$ : distance along axon

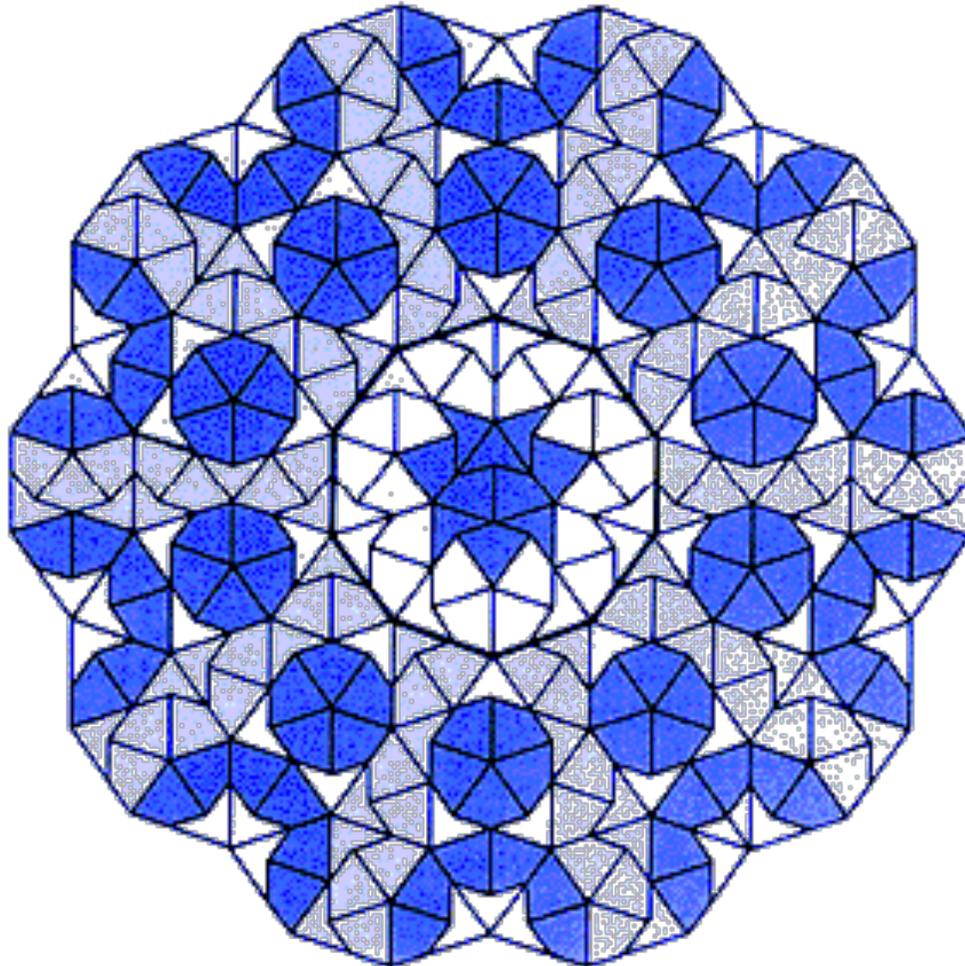
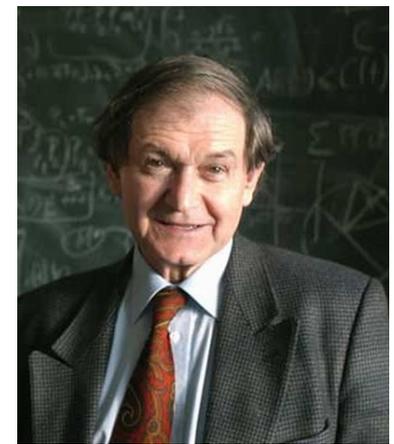






+









$$e^{i\pi}$$

