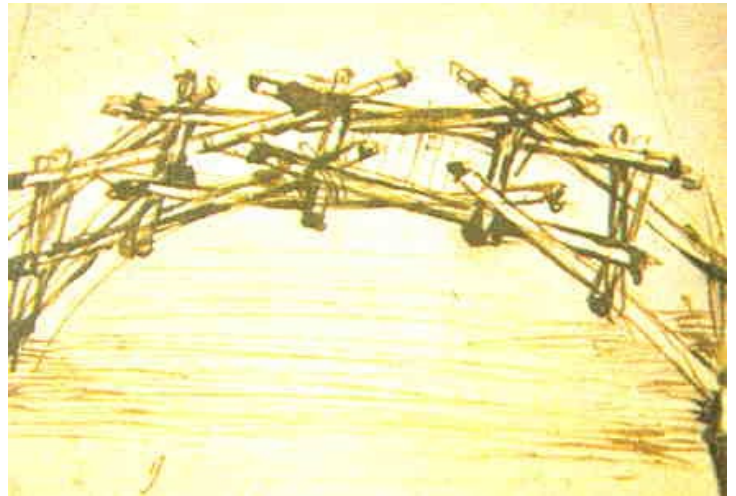


Self-Bearing Bridge

Codex Atlanticus, f. 69ar e 71v (1487-1489)

Used for military purposes to rapidly cross rivers and ditches, so to surprise the enemy. The bridge, built with parts “light and strong”, may be composed and dismantled rapidly, since it needs very few bindings (if any) and keeps stable thanks to a system of joints invented by Leonardo after a deep study of static rules.



MATERIAL : 10 long poles, 5 short poles, 10 ropes (optional)

HOW TO BUILD THE BRIDGE

The bridge is made by **5** elements H-shaped:

1st stage: BUILDING

- **2** H-shaped elements of same size (**A** e **B**)
- **2** H-shaped elements of same size (**C** e **D**)
narrower than A and B
- **1** H-shaped element (**E**) larger than A and B

2nd stage: ASSEMBLING

The Joint:

- Join elements **C** and **D** with the element **E**, the center of the bridge
- Join **A** with **C** and **B** with **D**

