

# The Architecture of Antoni Gaudí

Lecture 4: Equilibrated Structure (2020.07.20)

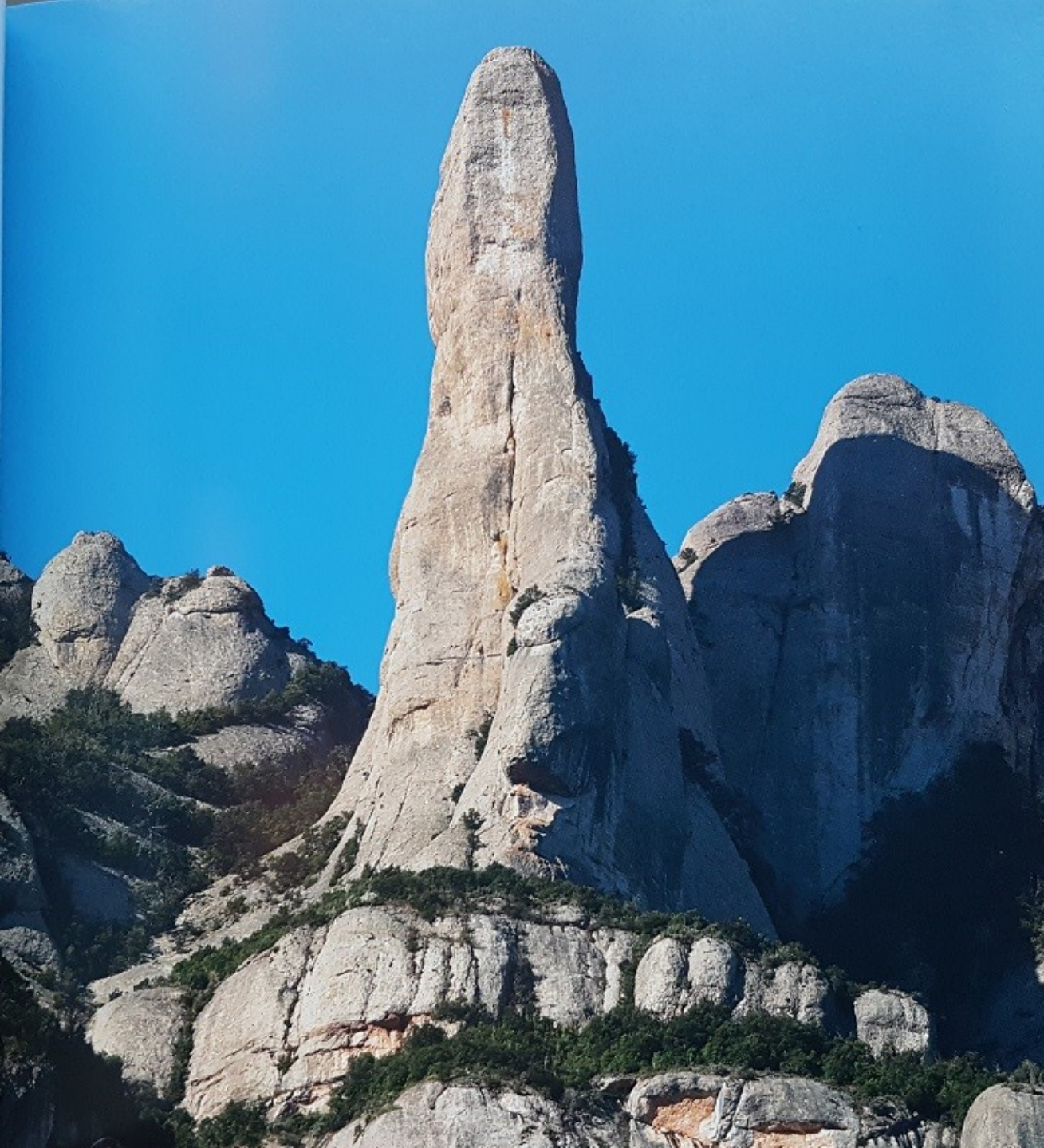
Osher Lifelong Learning Institute  
Carnegie Mellon University  
Matthew Schlueb, Instructor













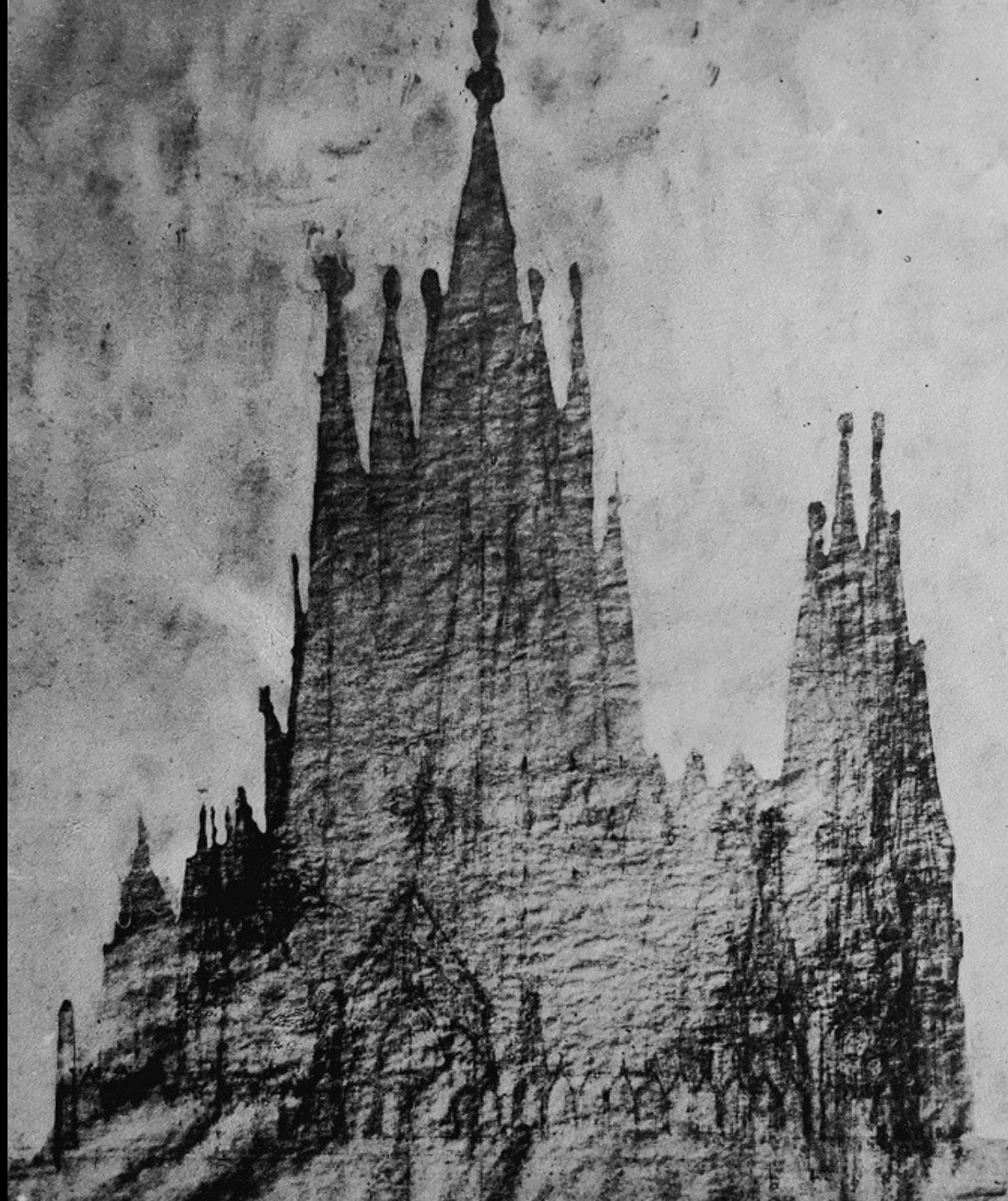




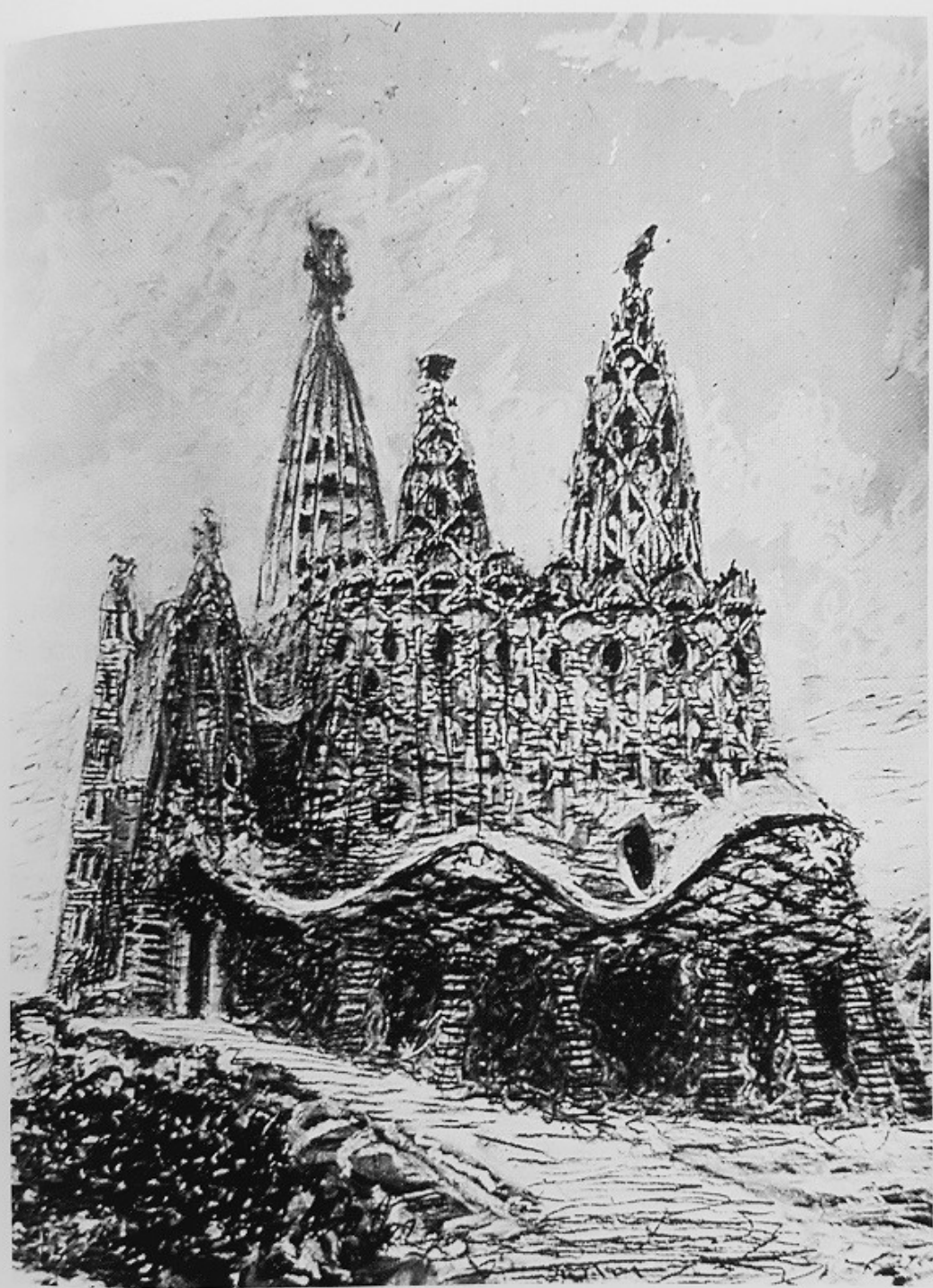
A pen drawing for the *Sagrada Família*, made in 1915 by one of Gaudí's assistants, the architect Juan Rubió. In the middle is the Façade of the Nativity, which is complete today; at left, in profile, is the Façade of Glory. The central spire is to be 557 feet high.







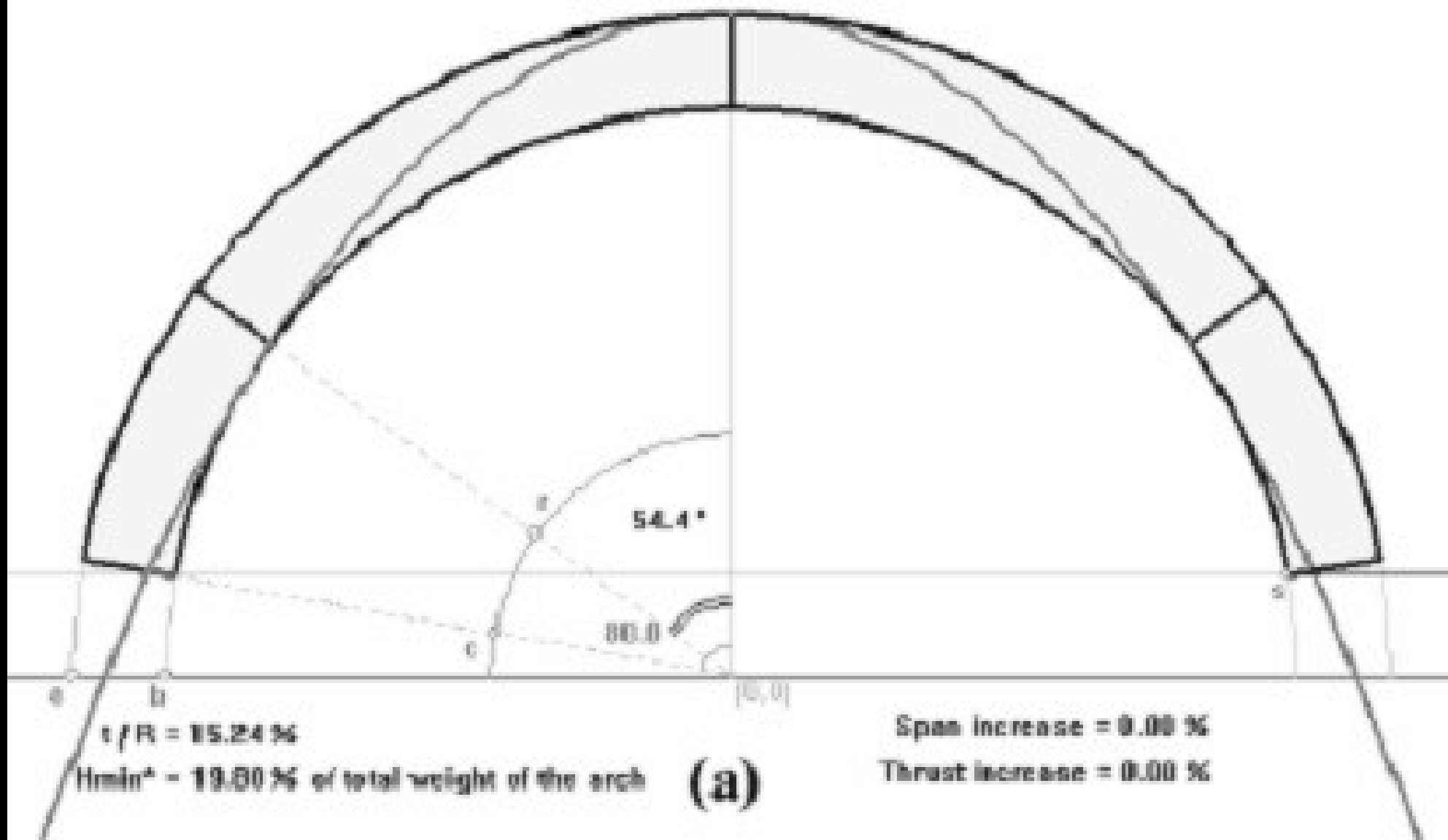








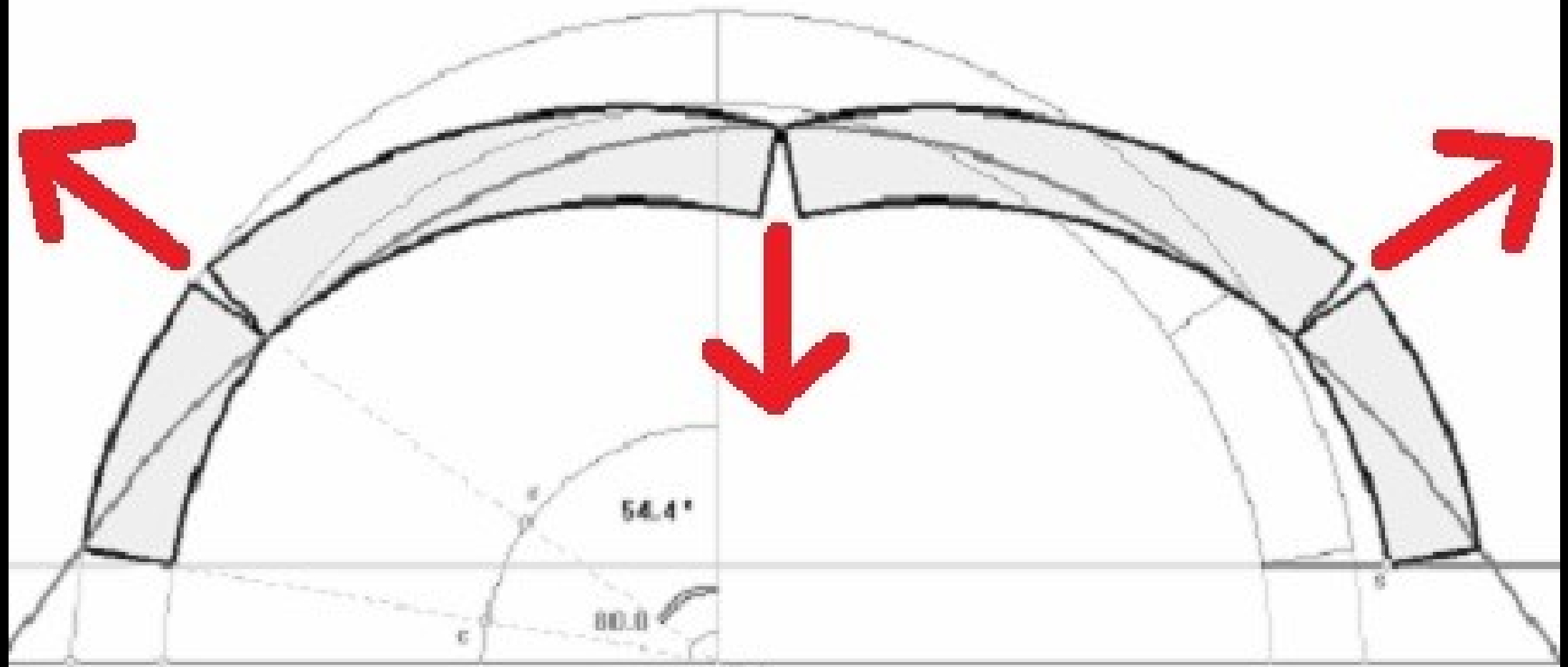










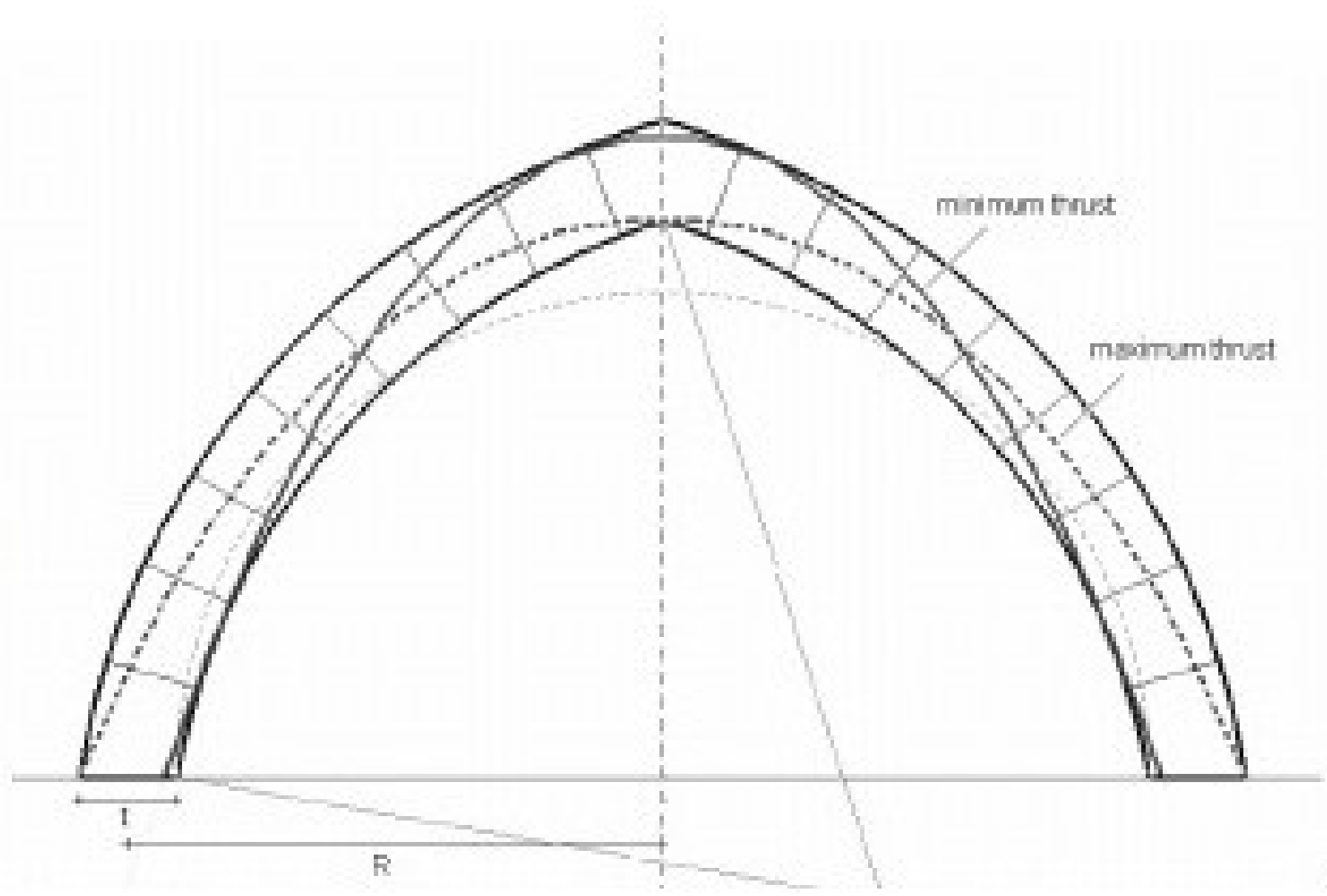


$t/R = 15.24\%$   
 $H_{min} = 19.80\%$  of total weight of the arch

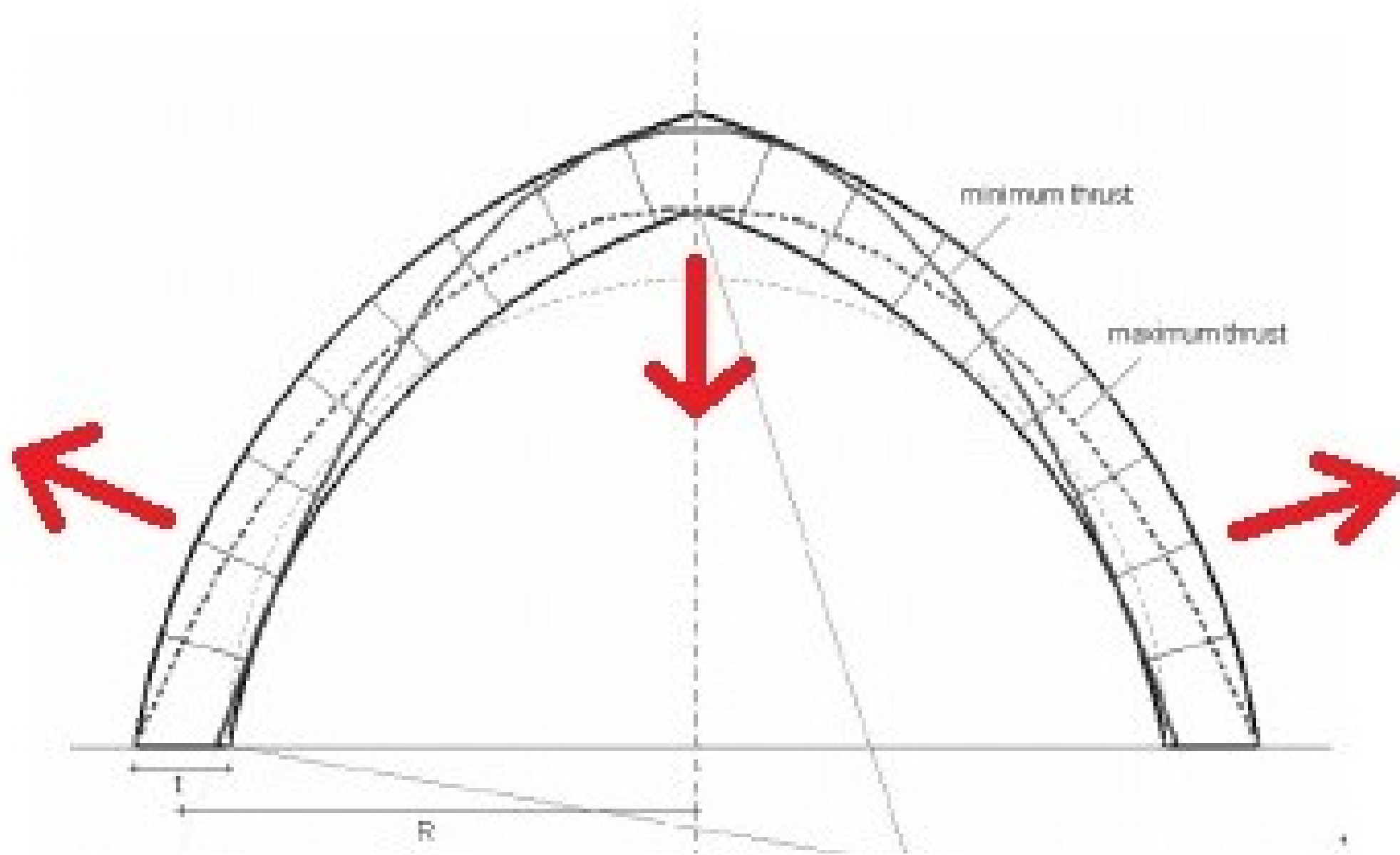
(c)

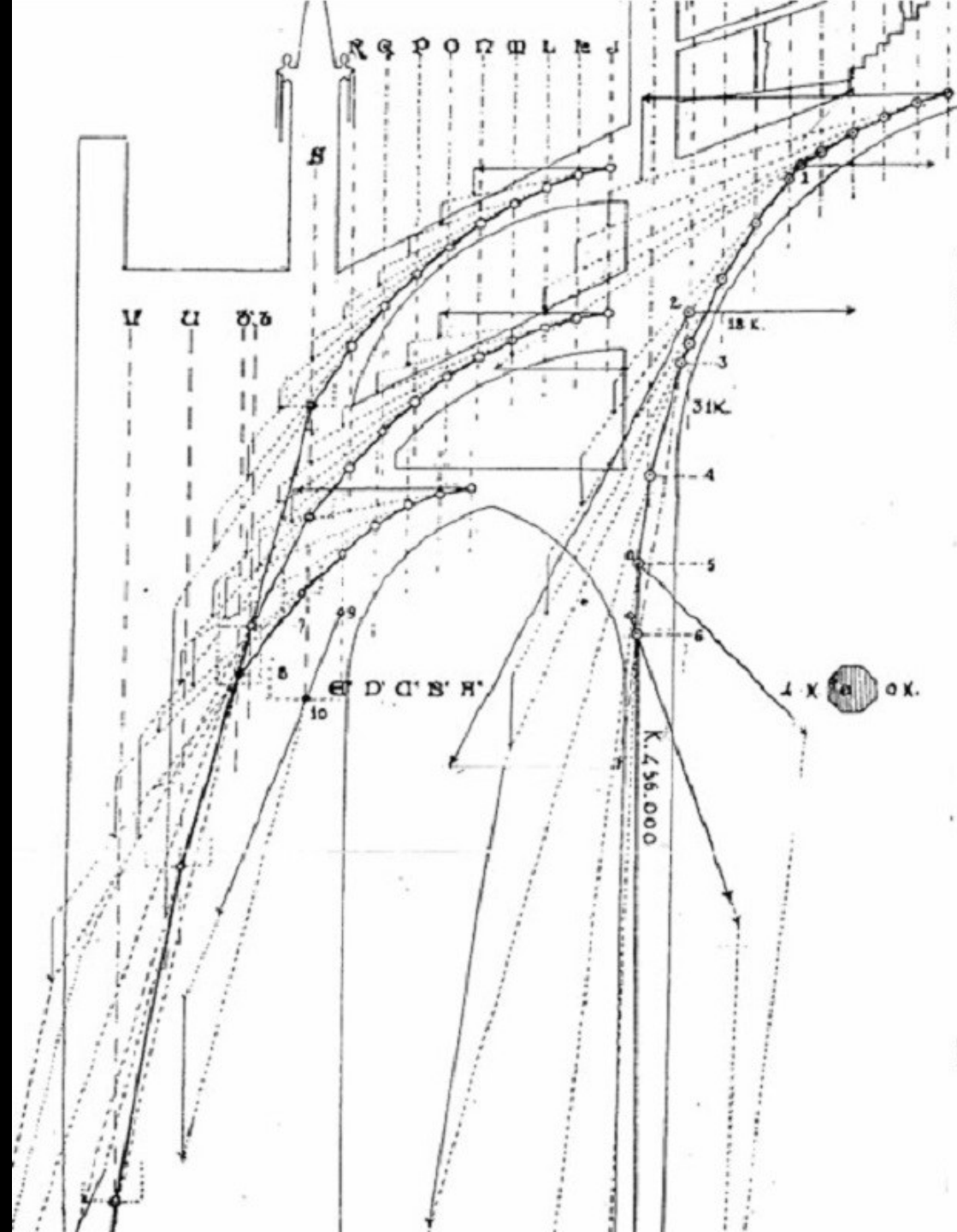
Span increase =  $11.49\%$   
 Thrust increase =  $85.10\%$



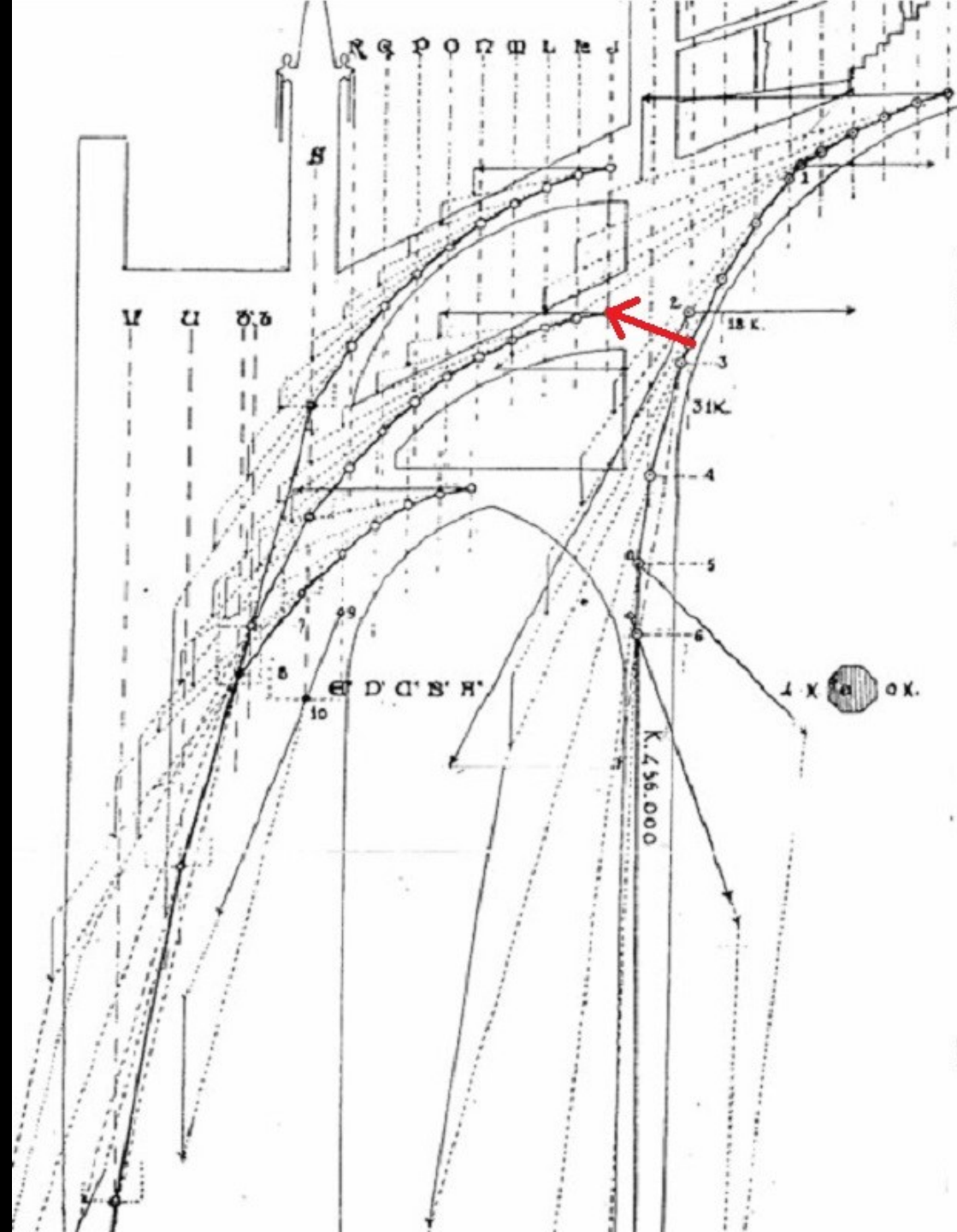


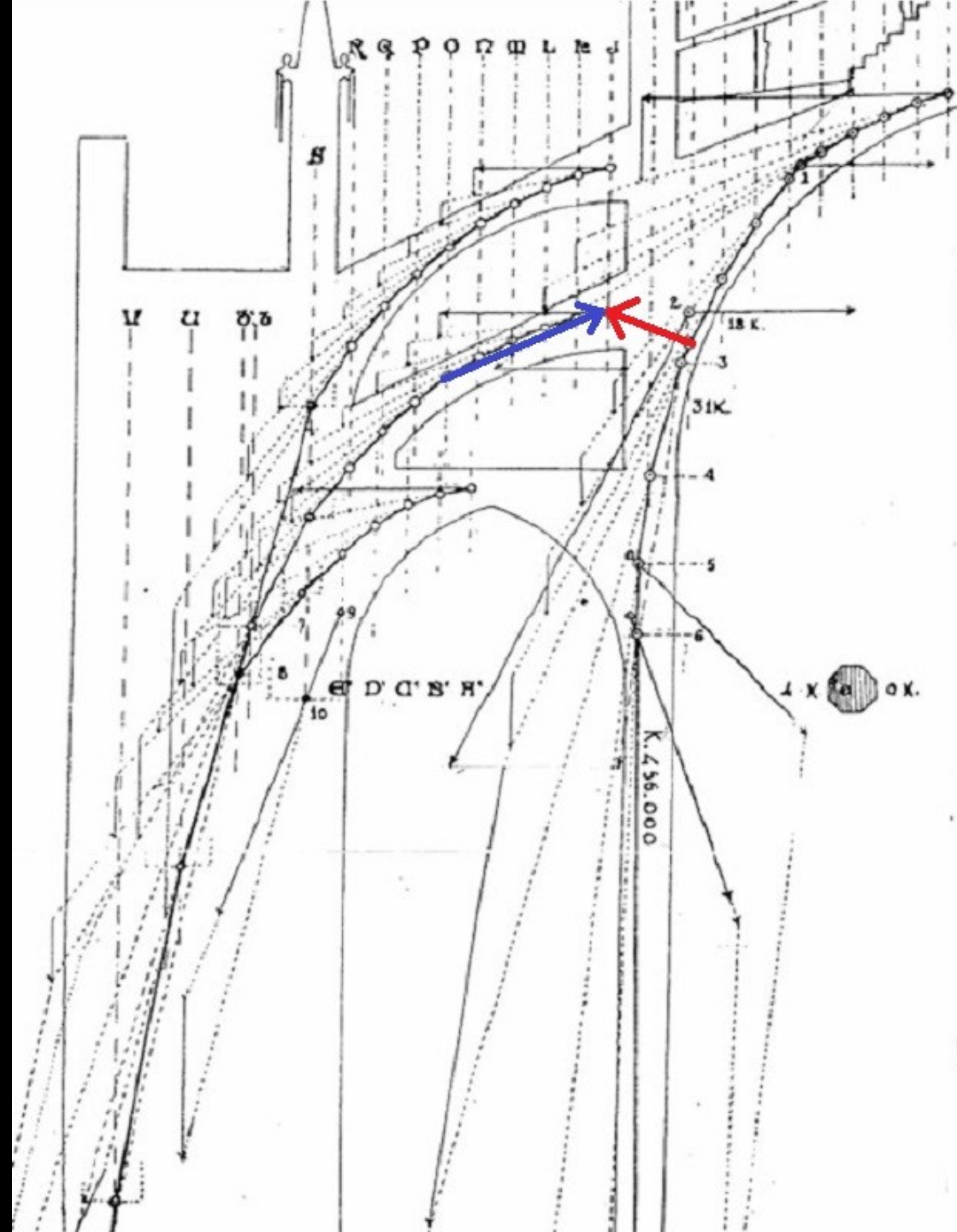




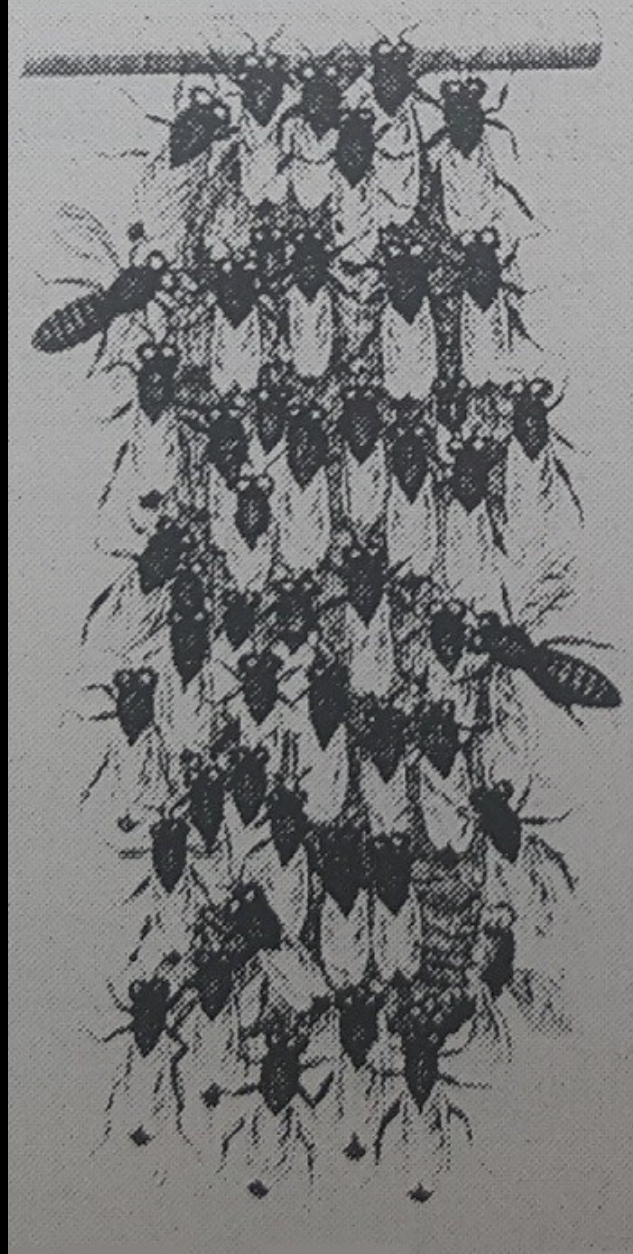
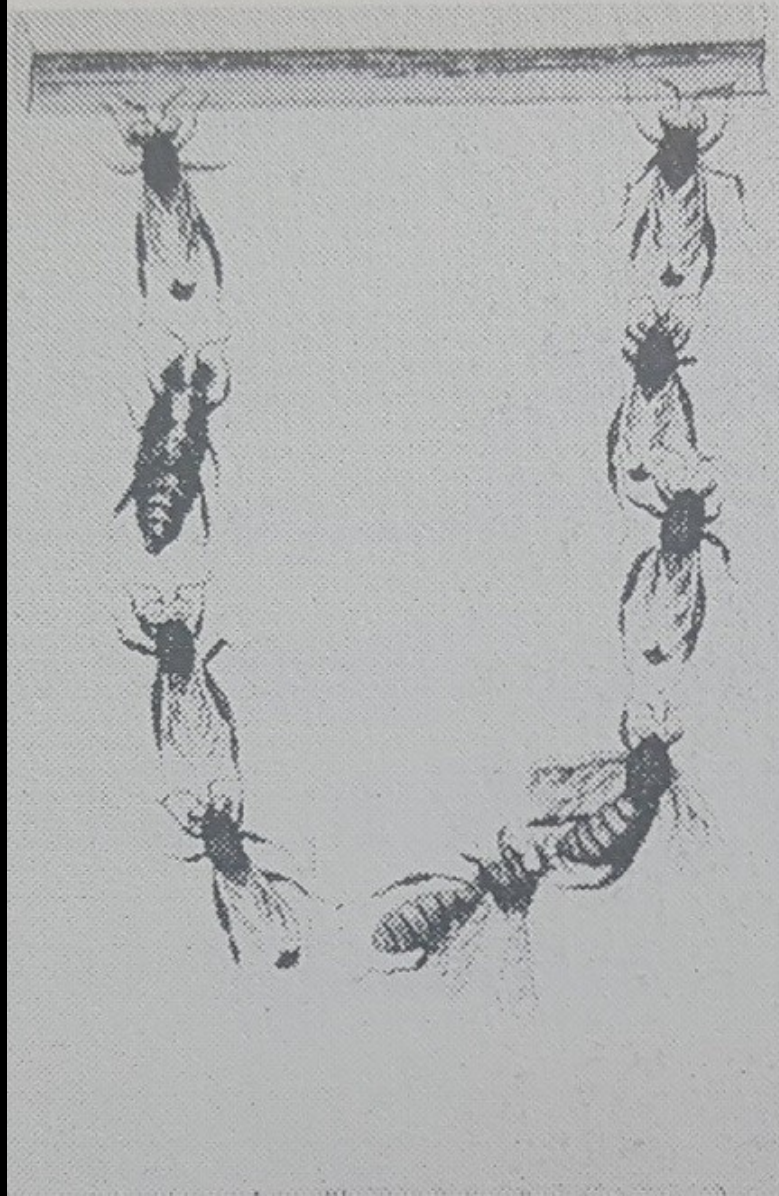


















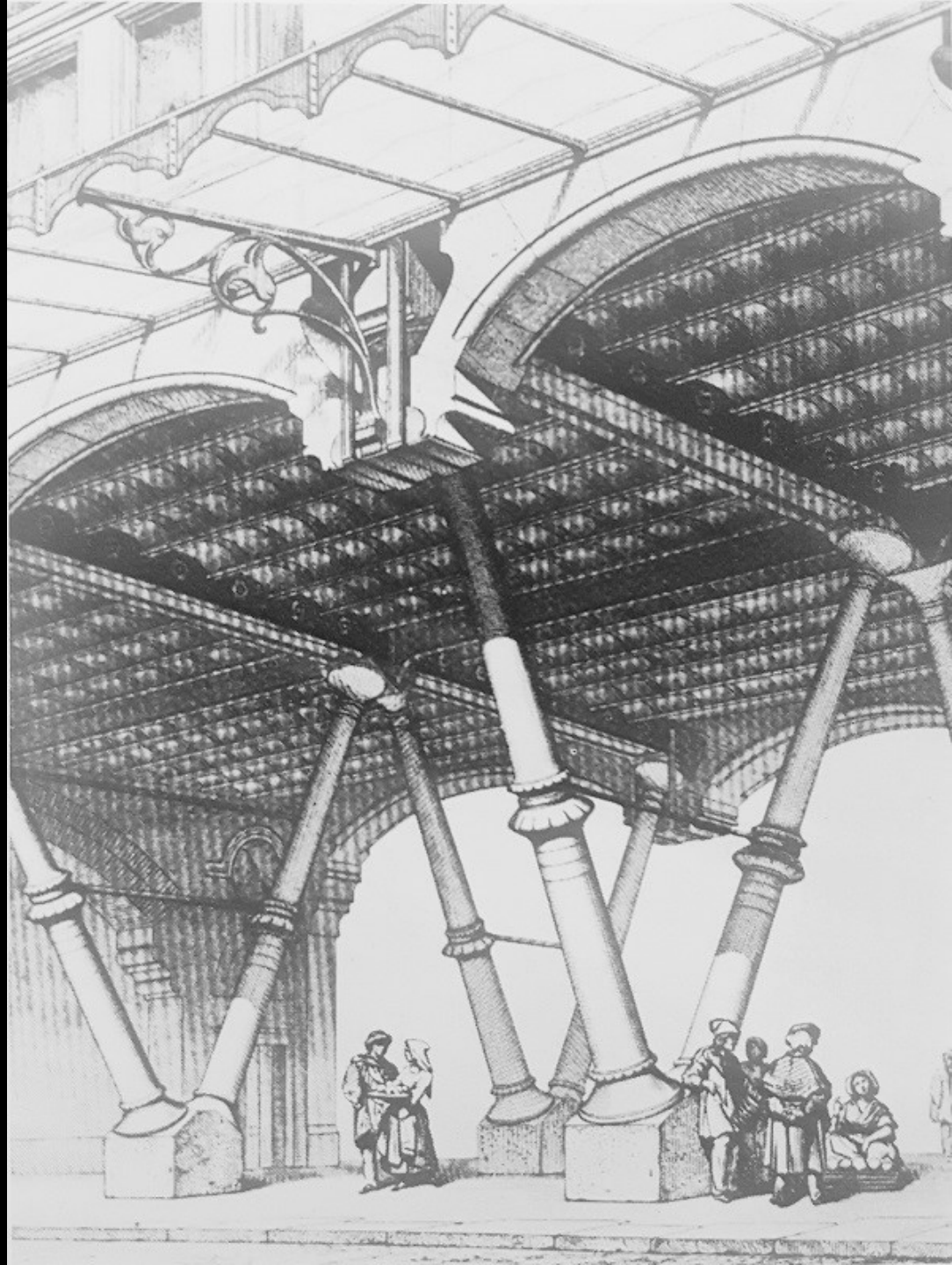








































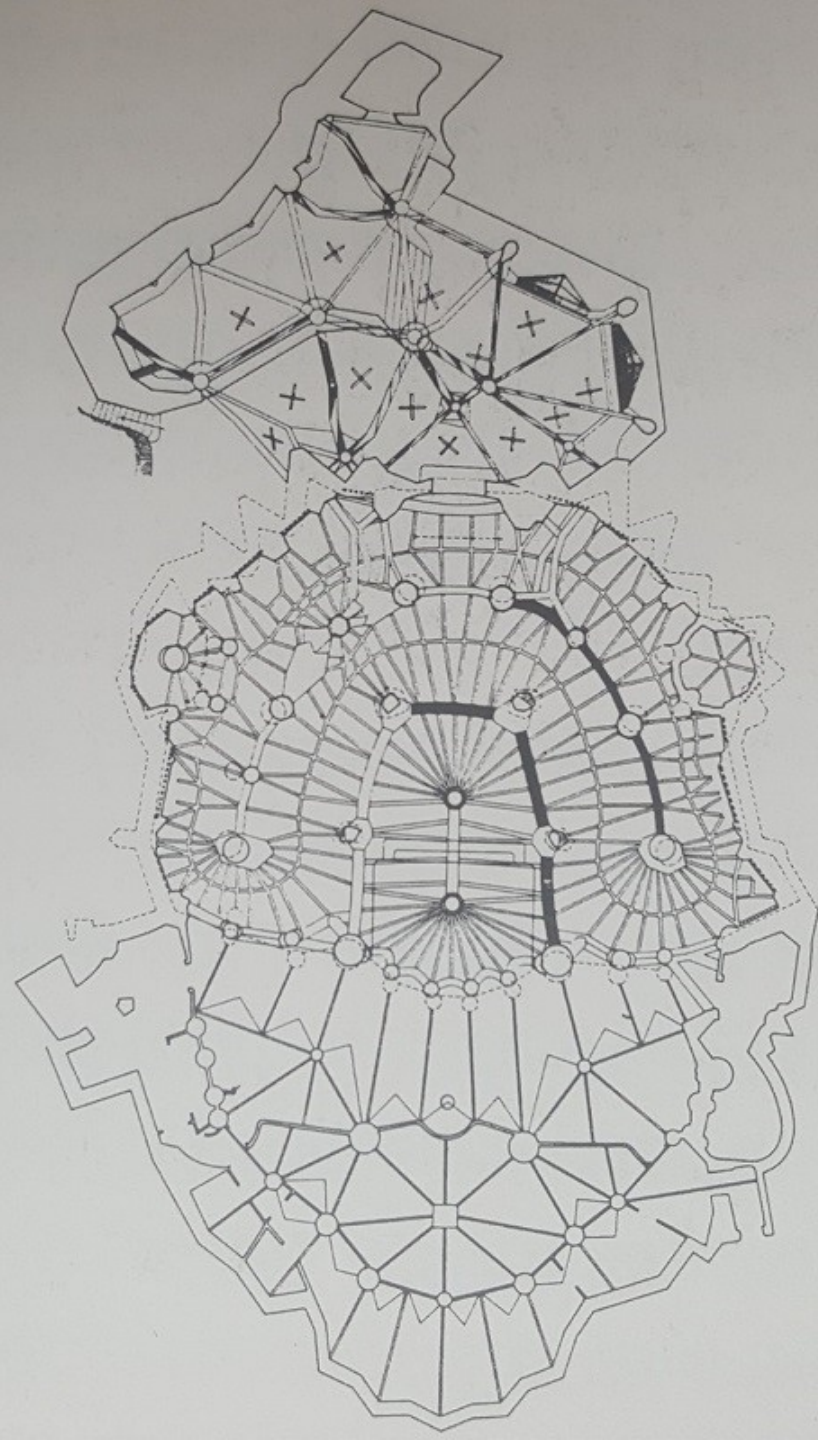




















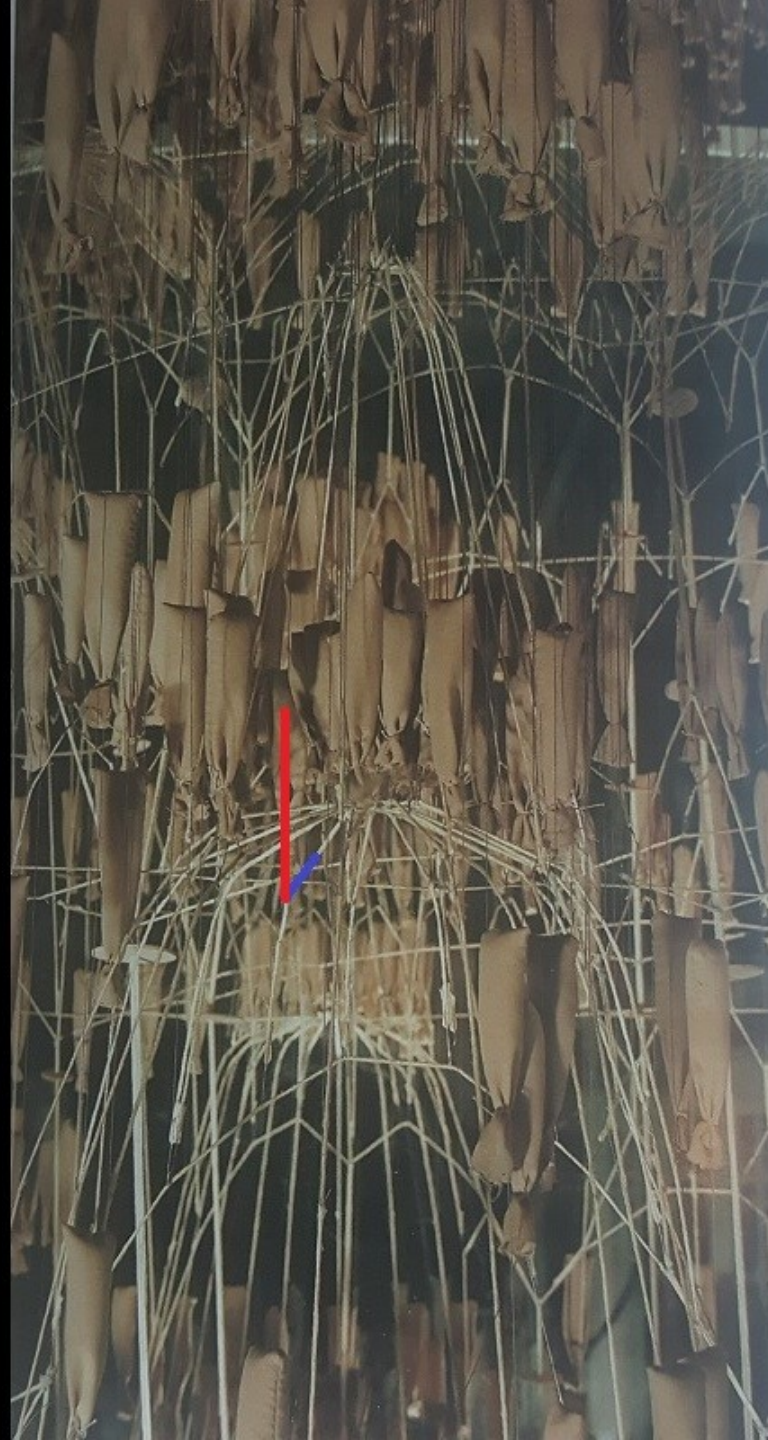




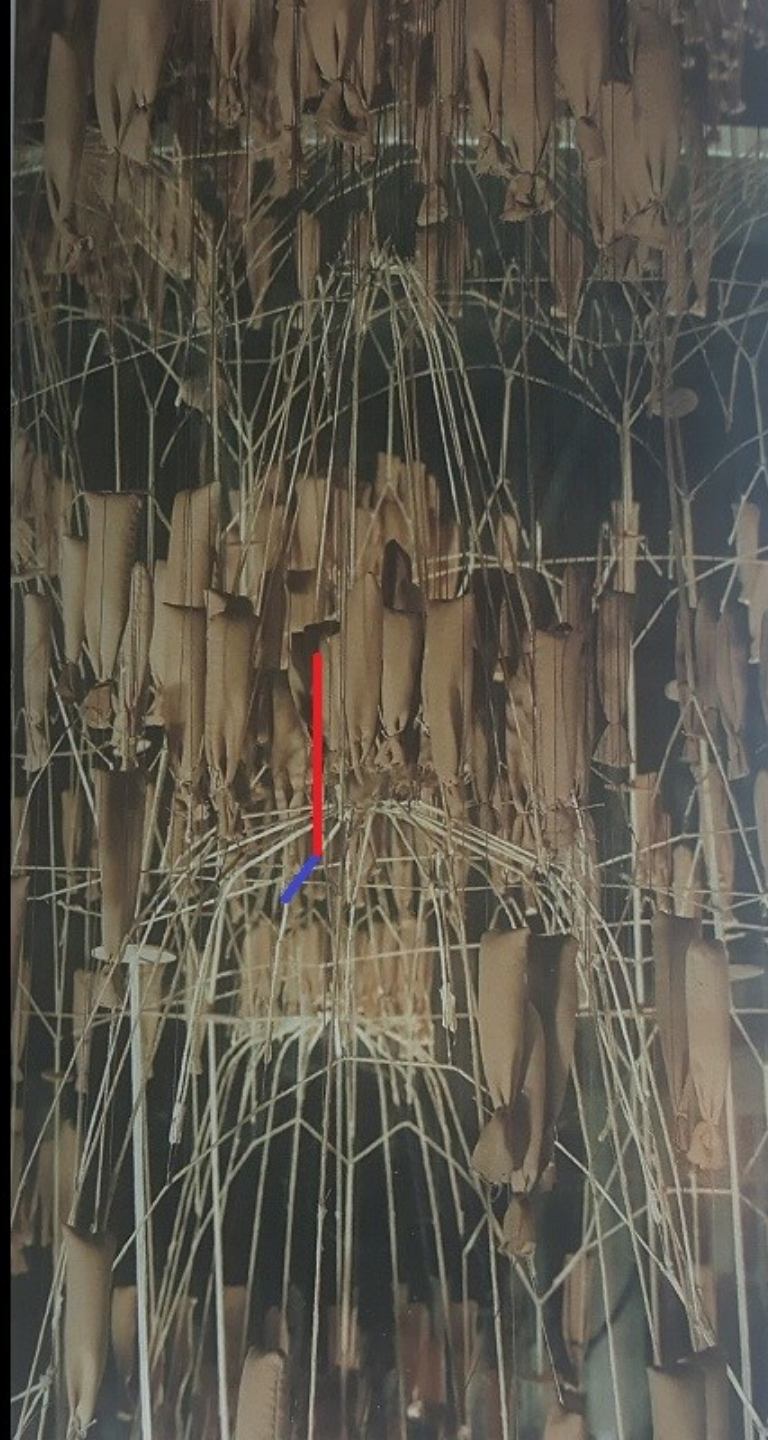




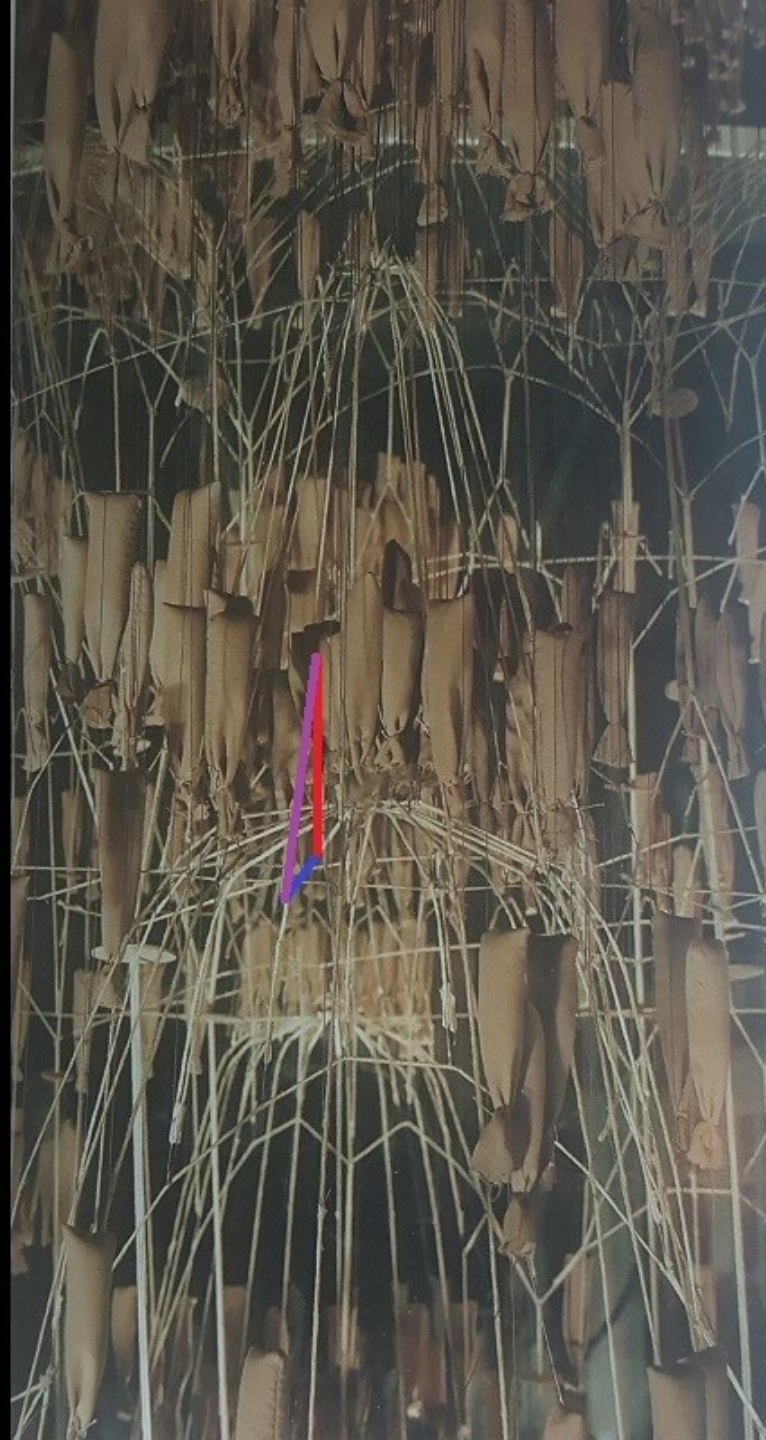




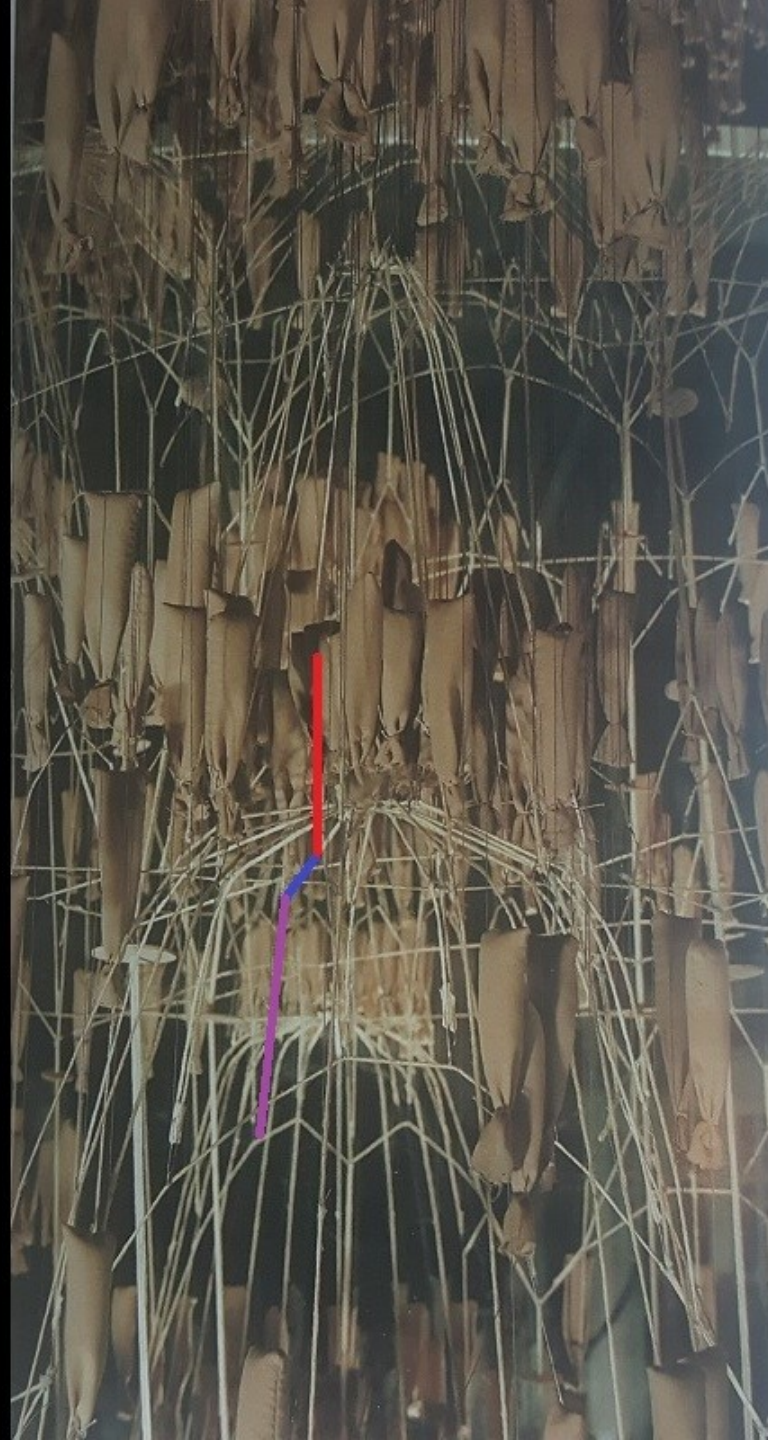




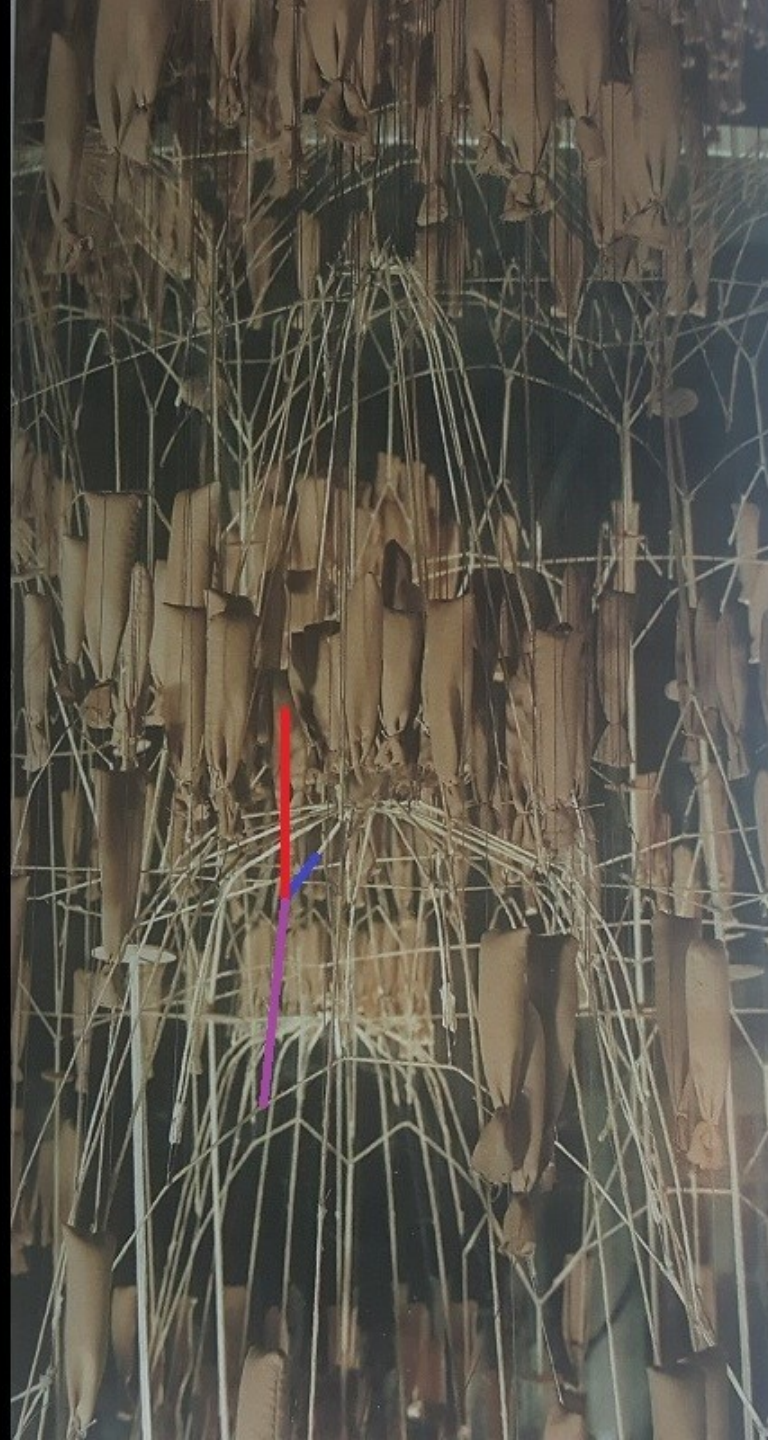




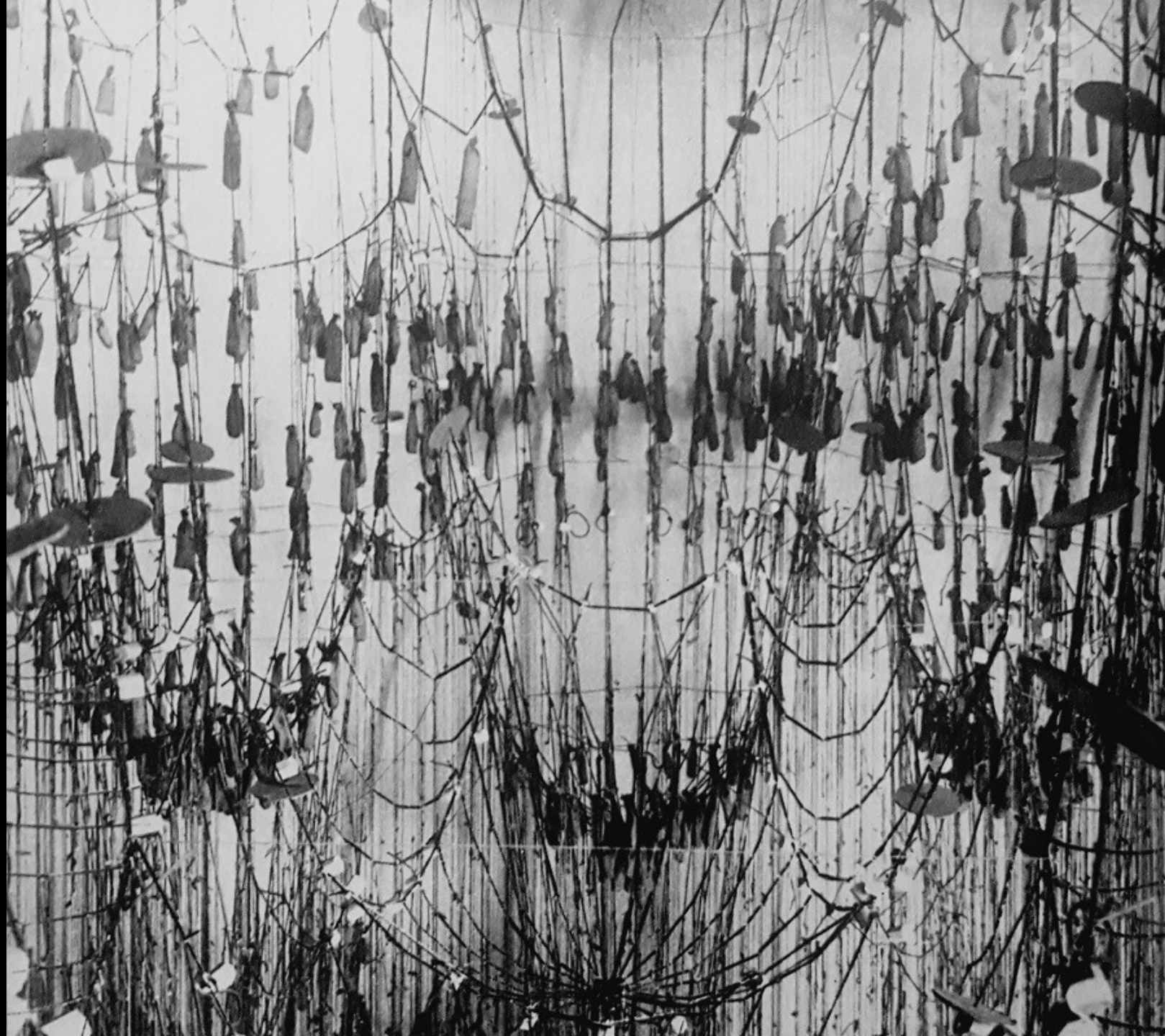




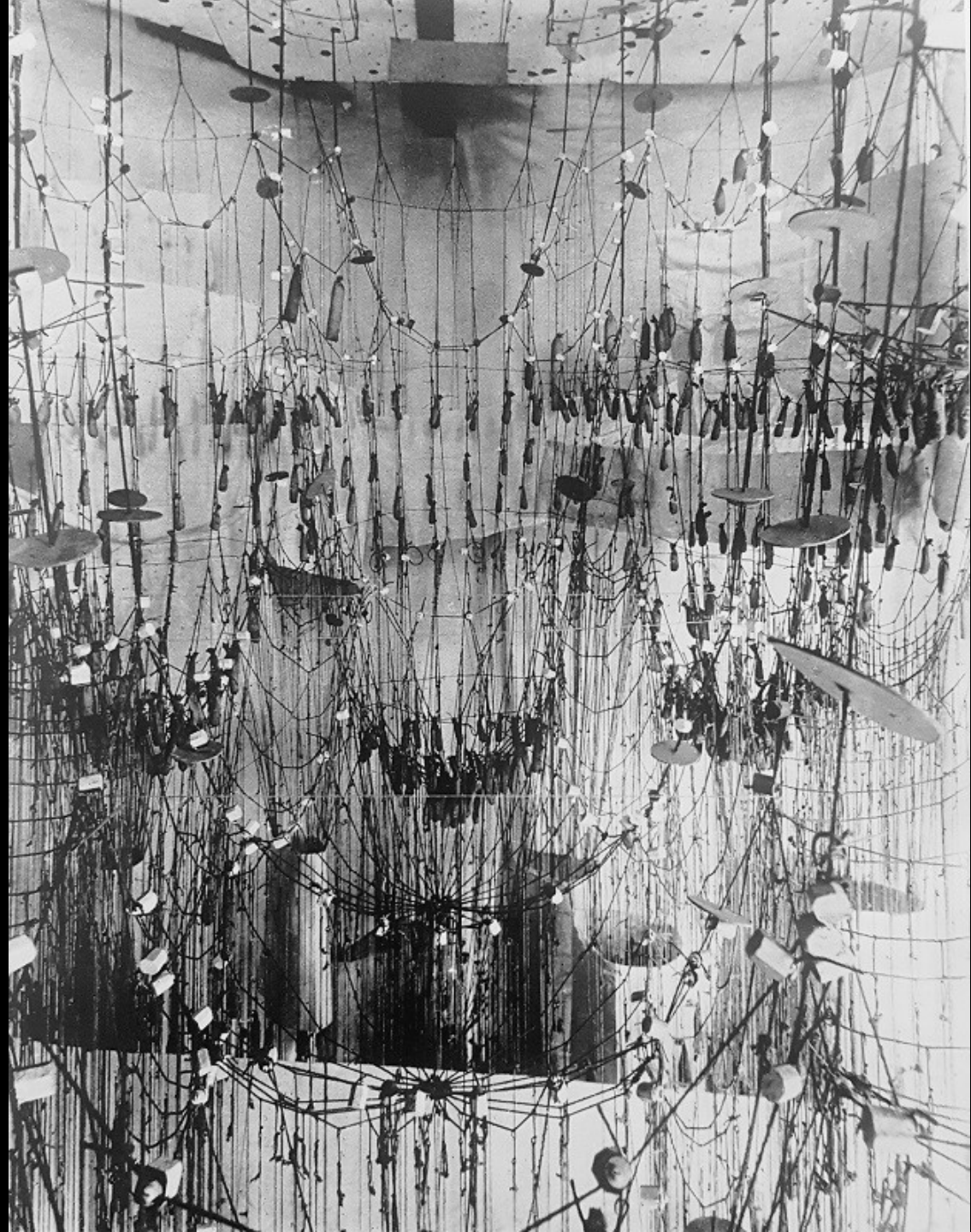




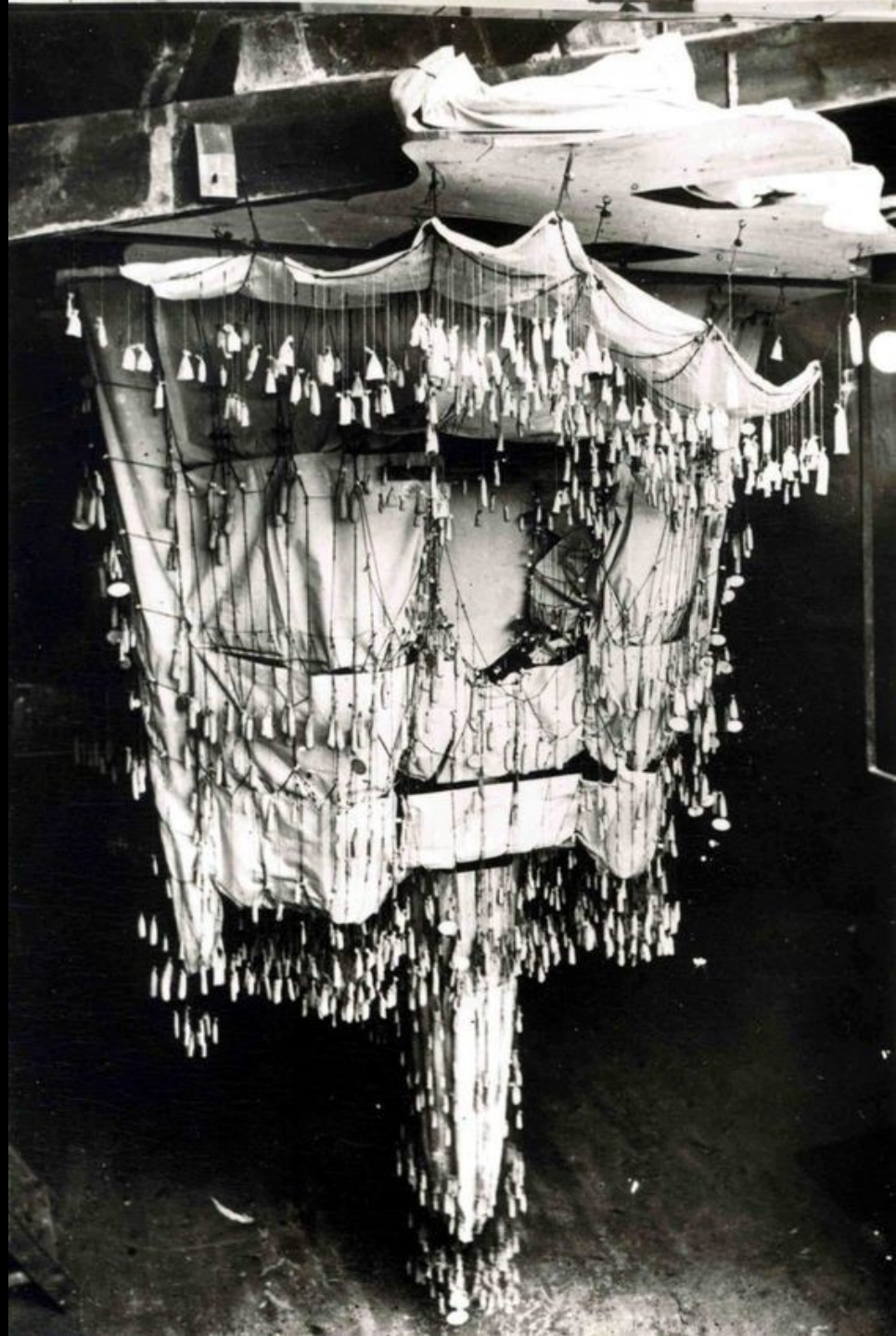




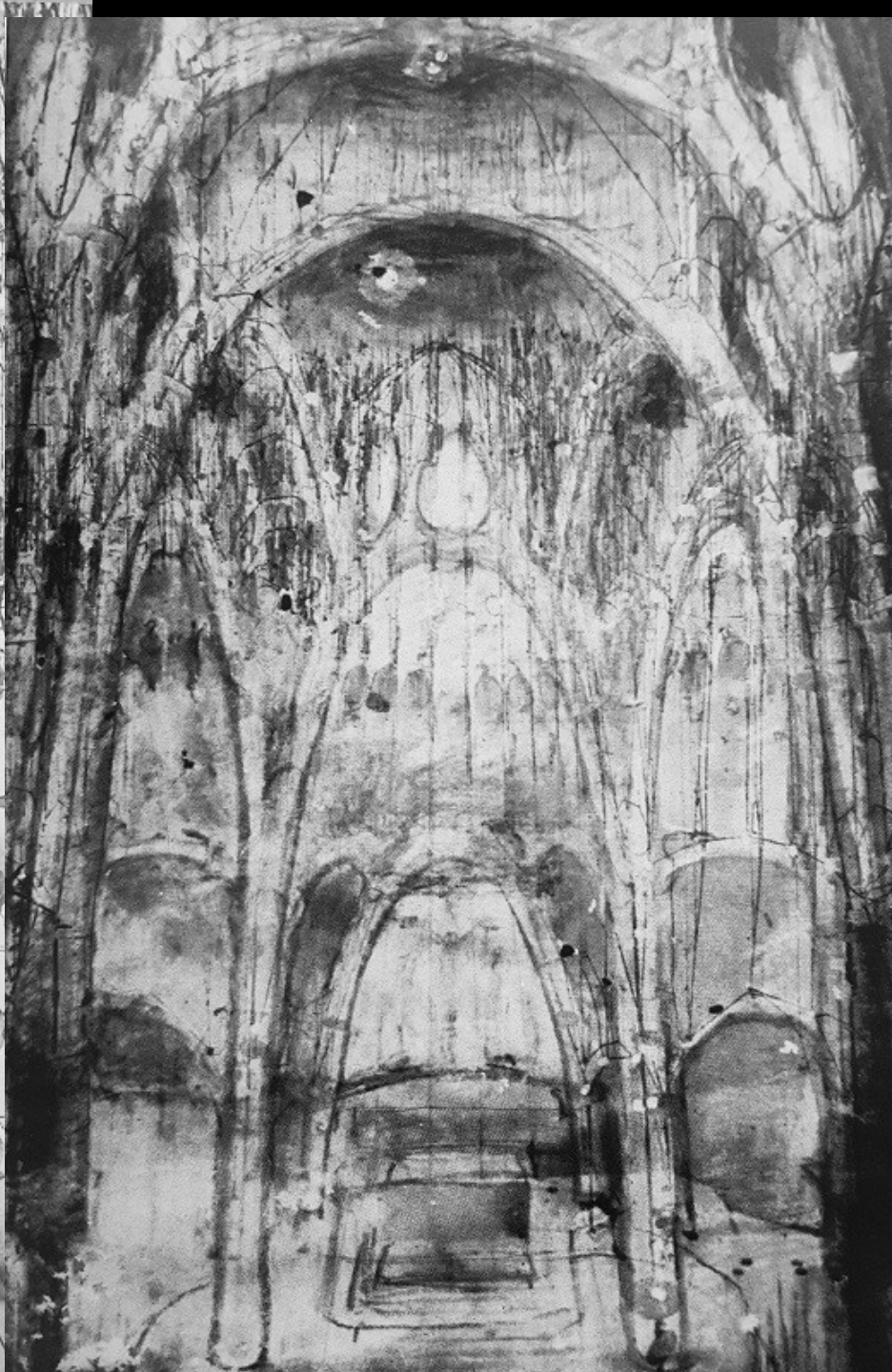




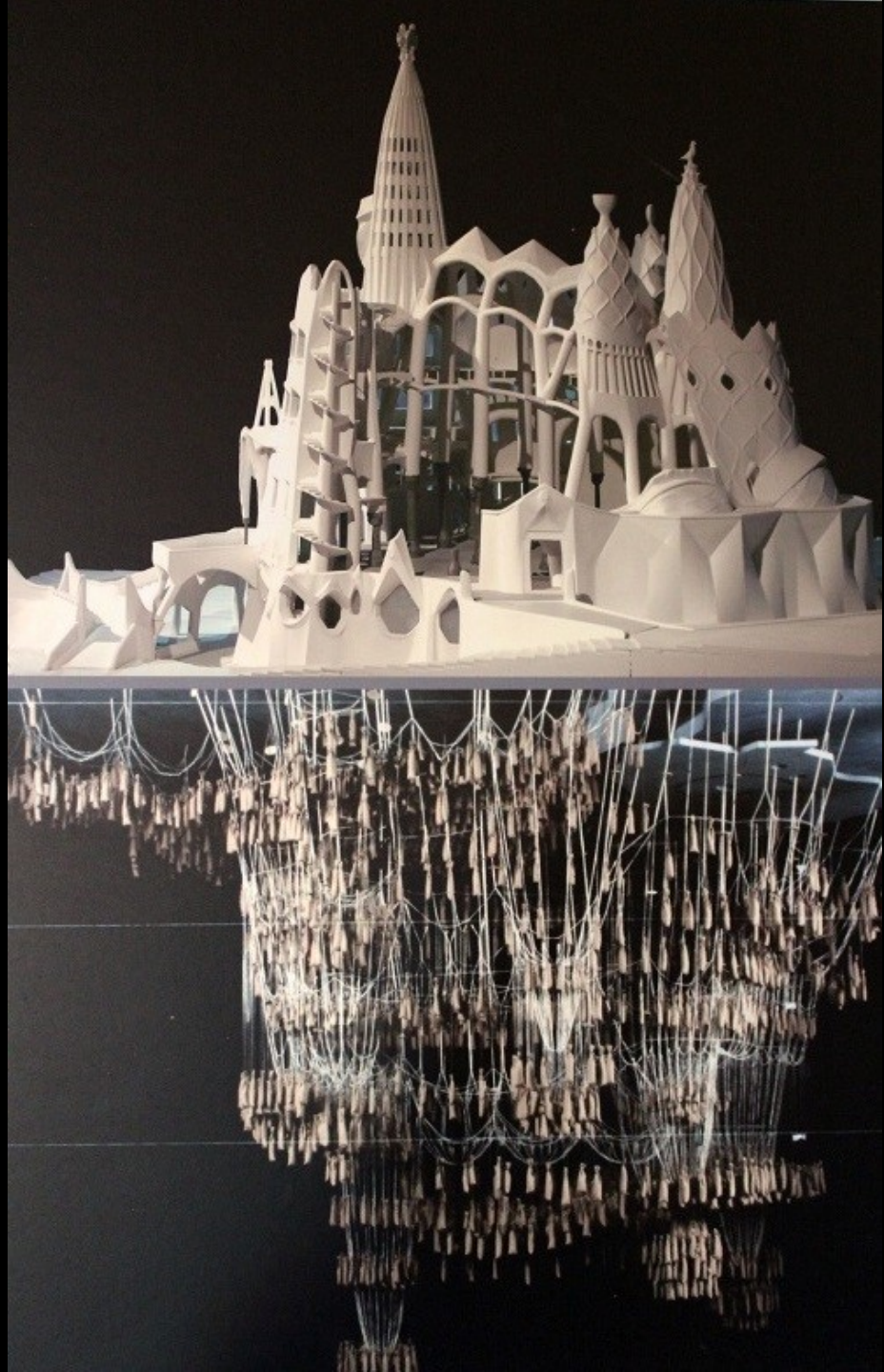








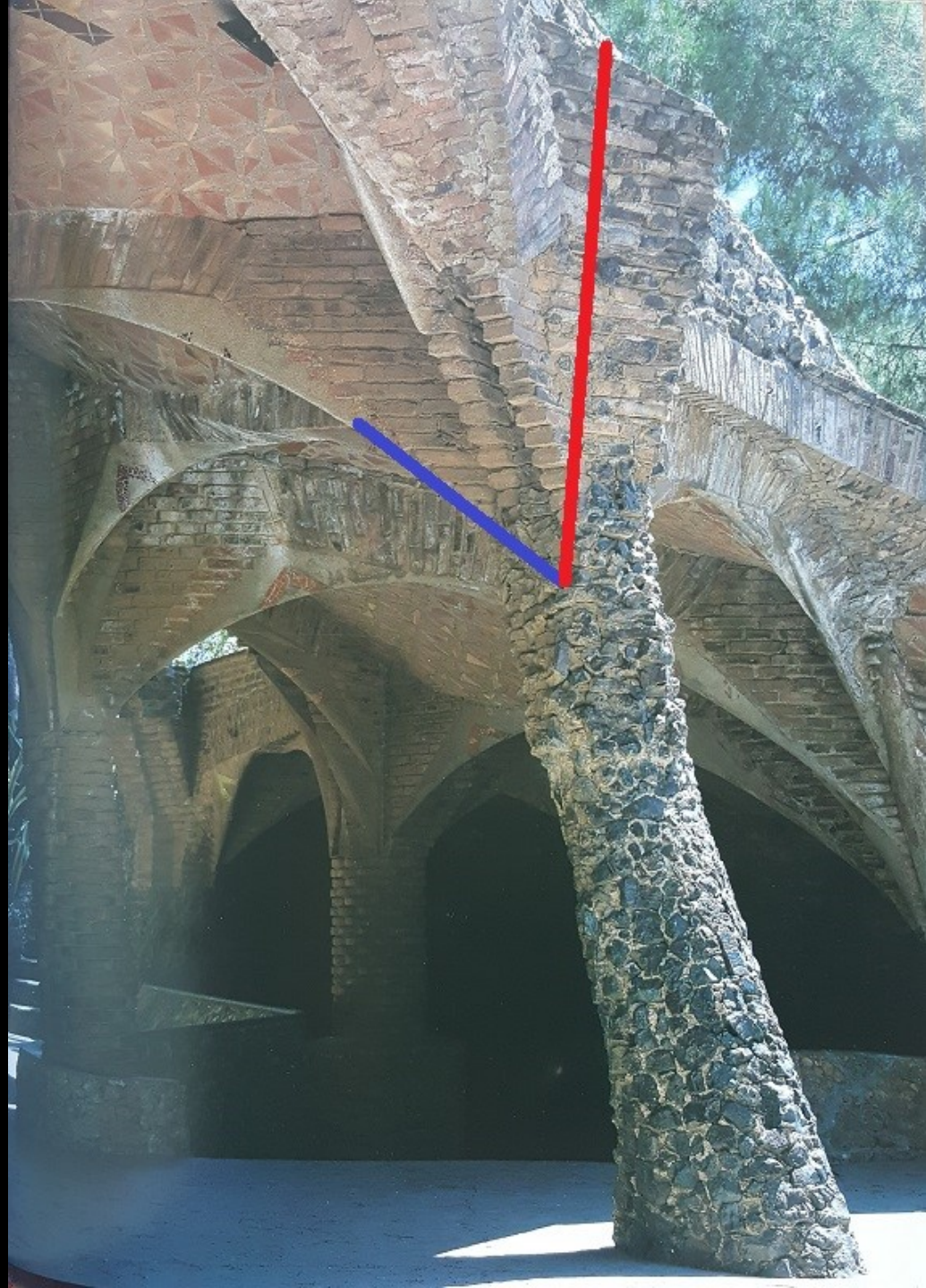




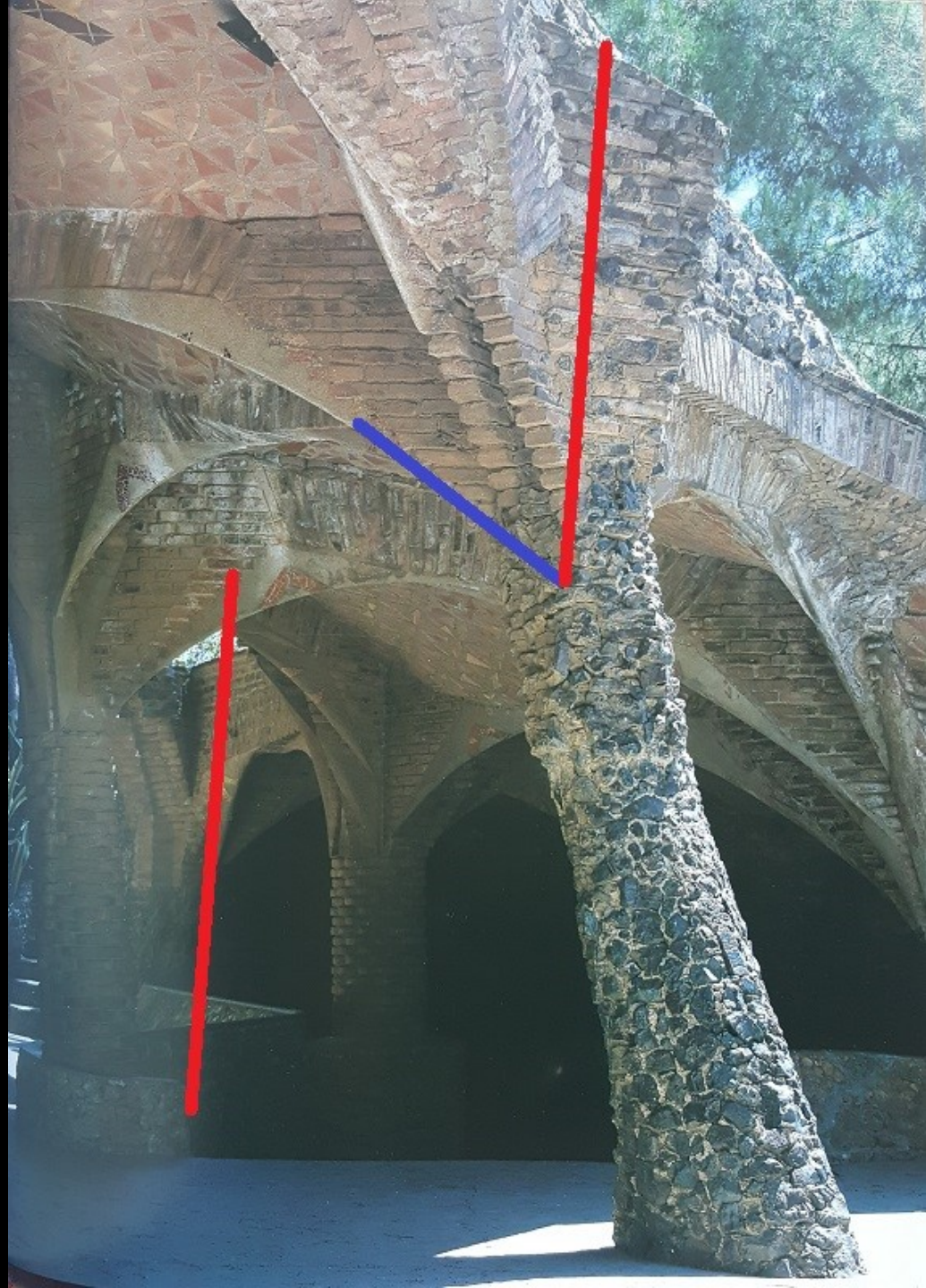




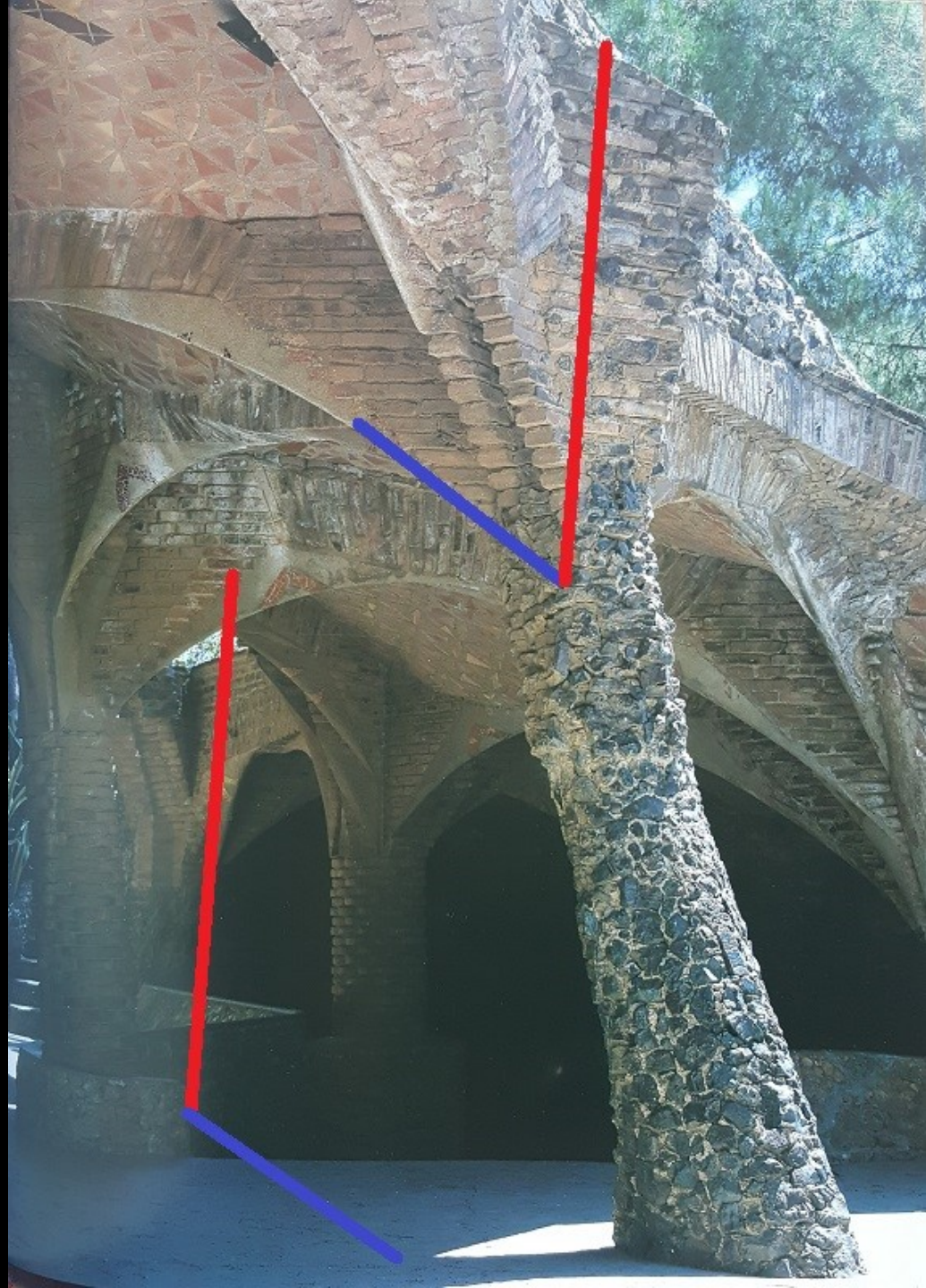




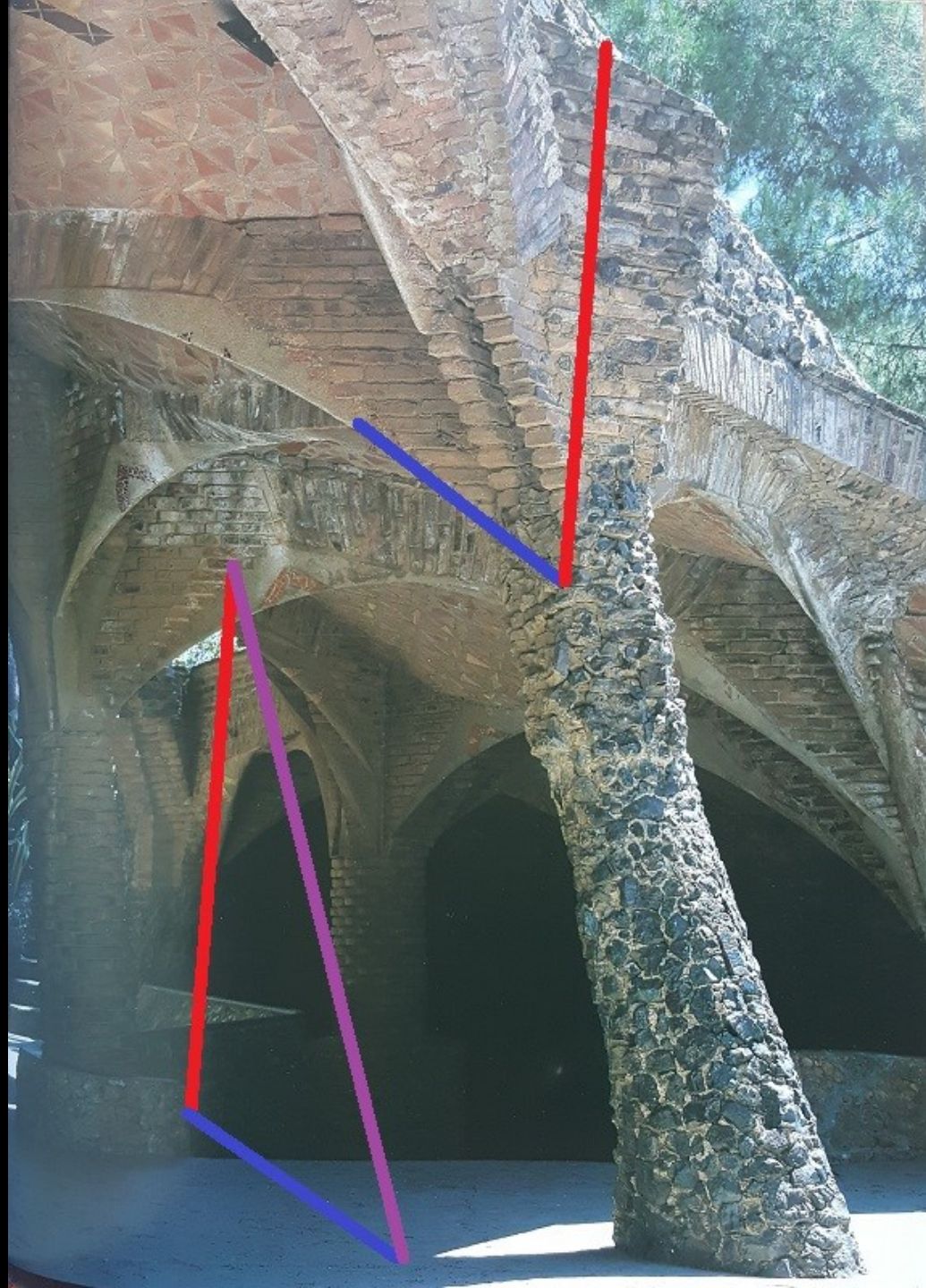








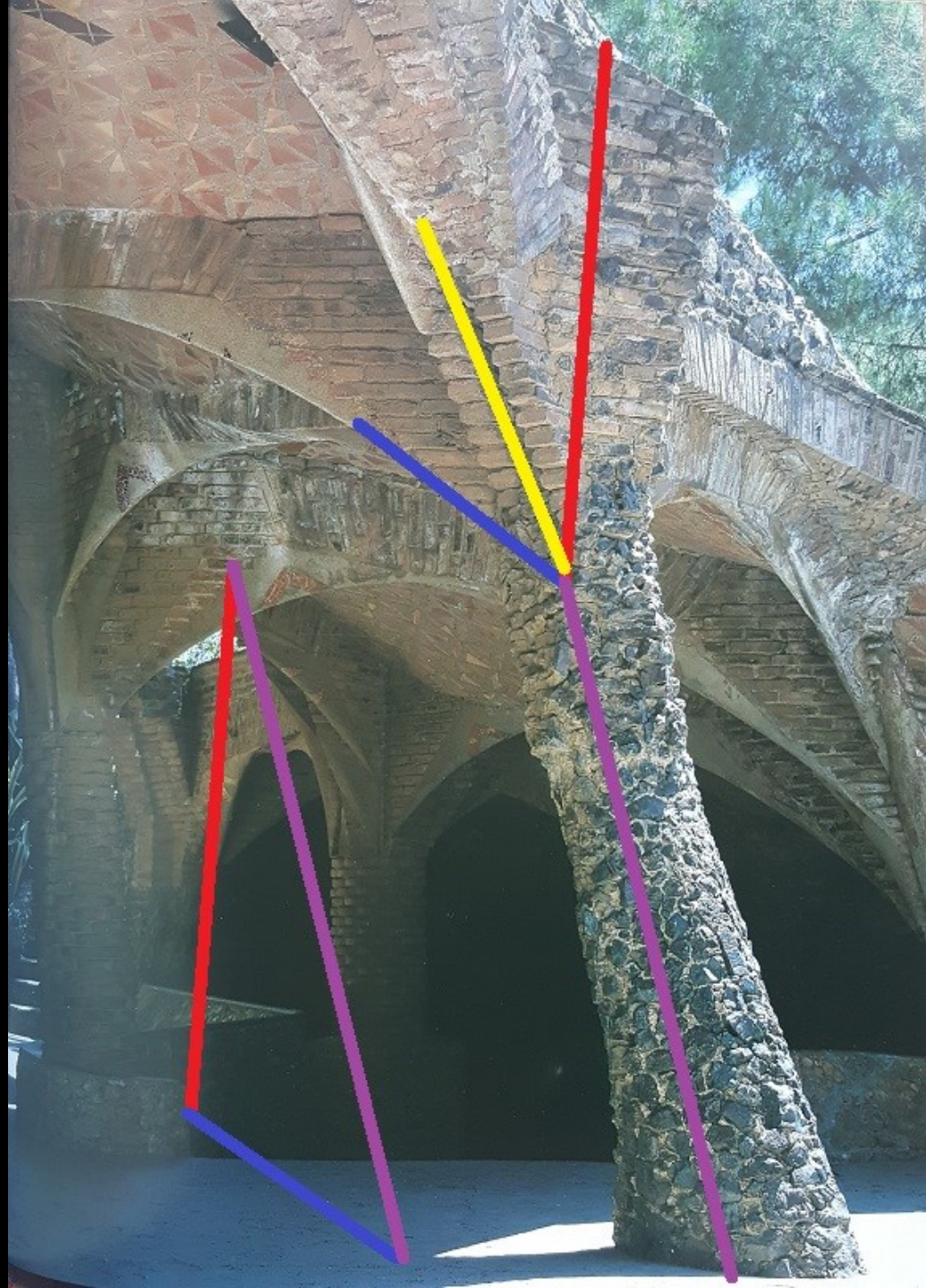












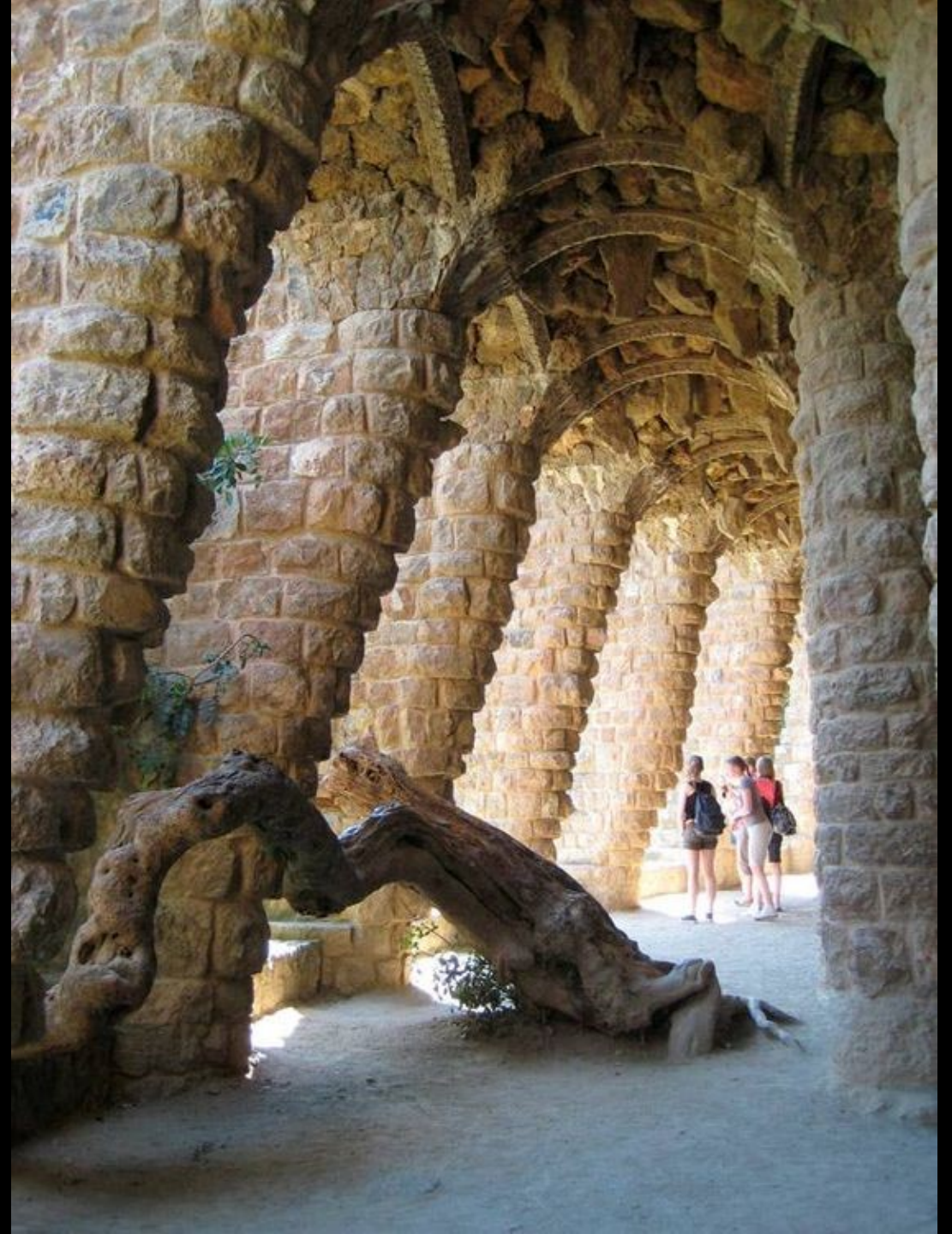
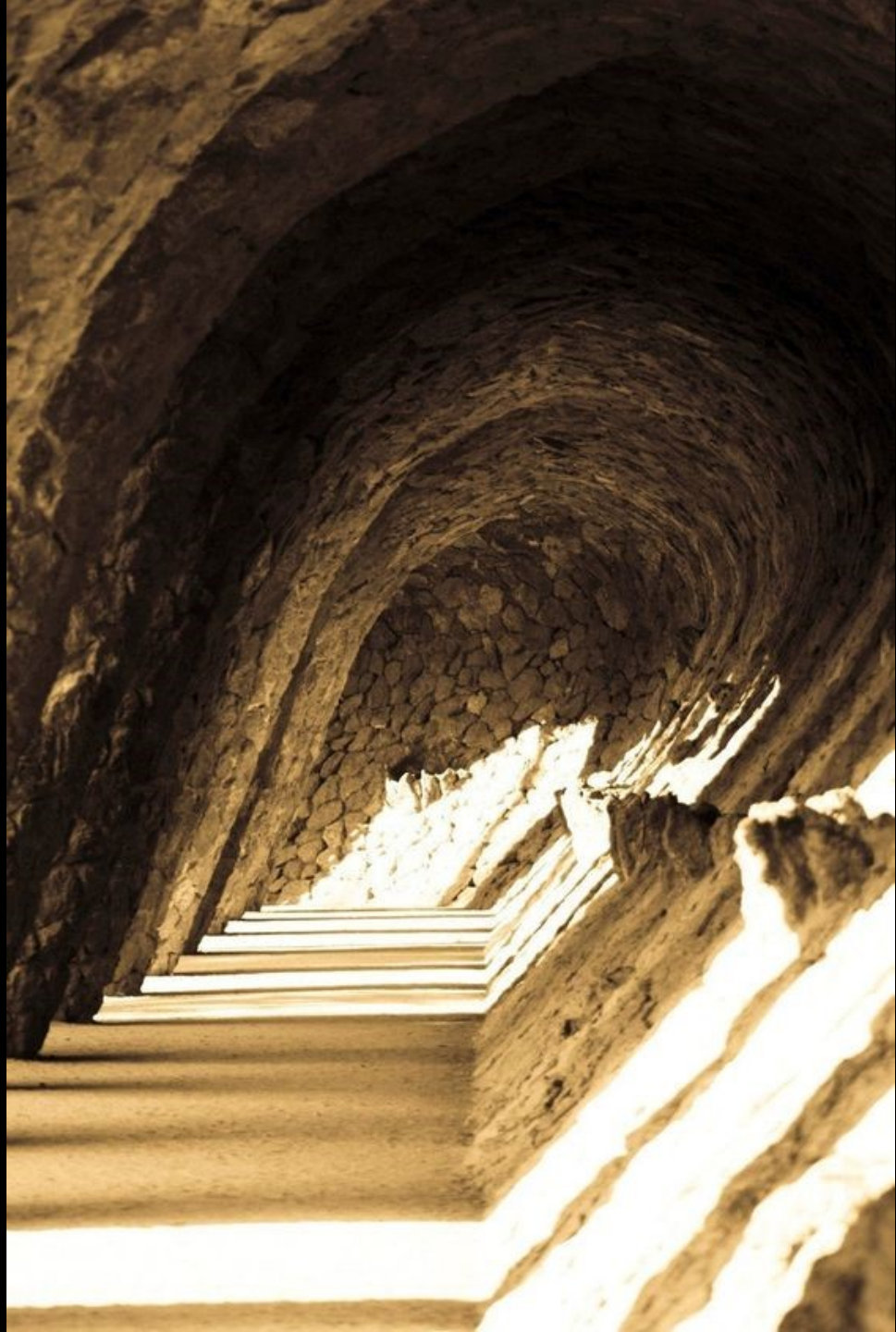








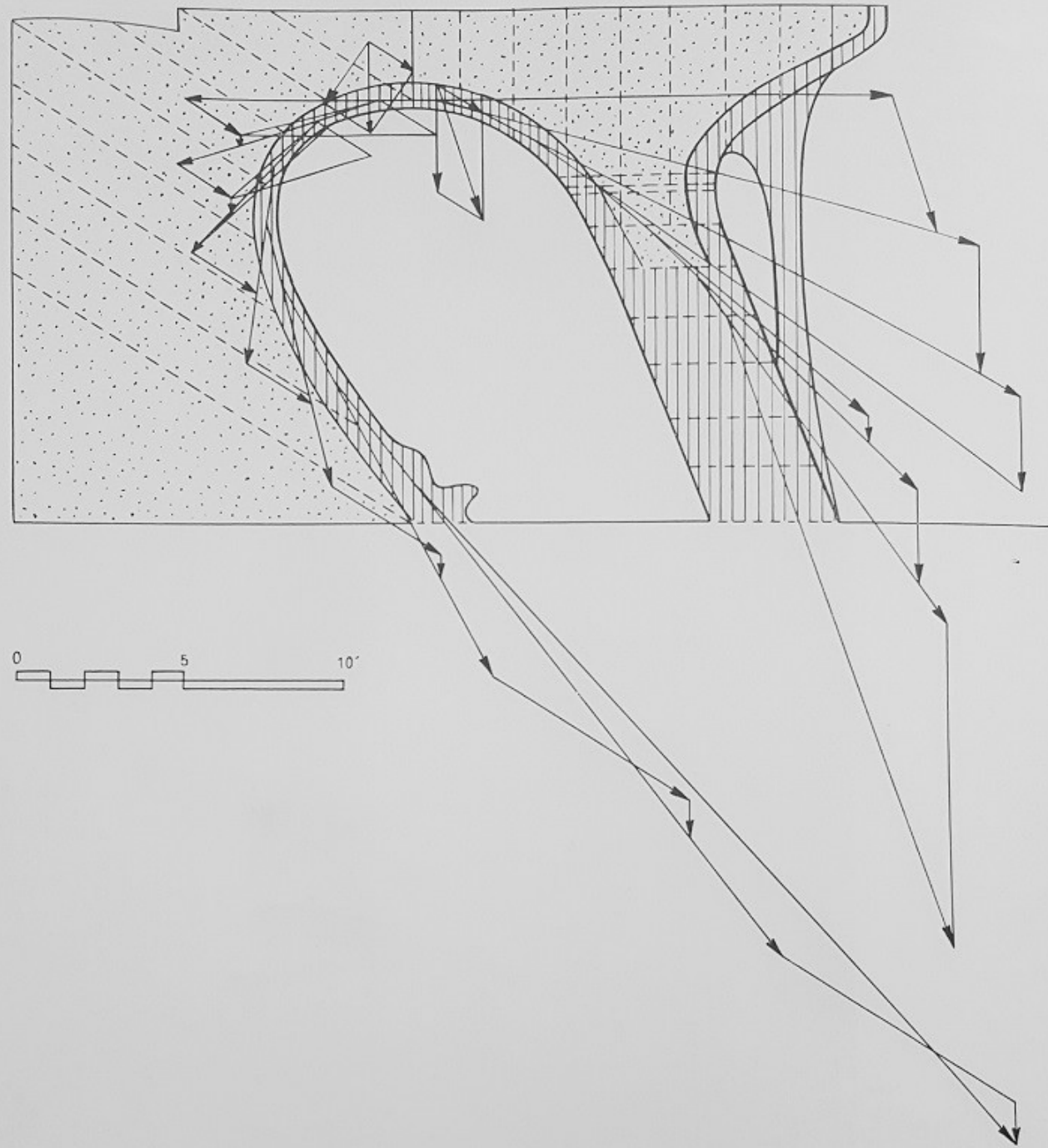
























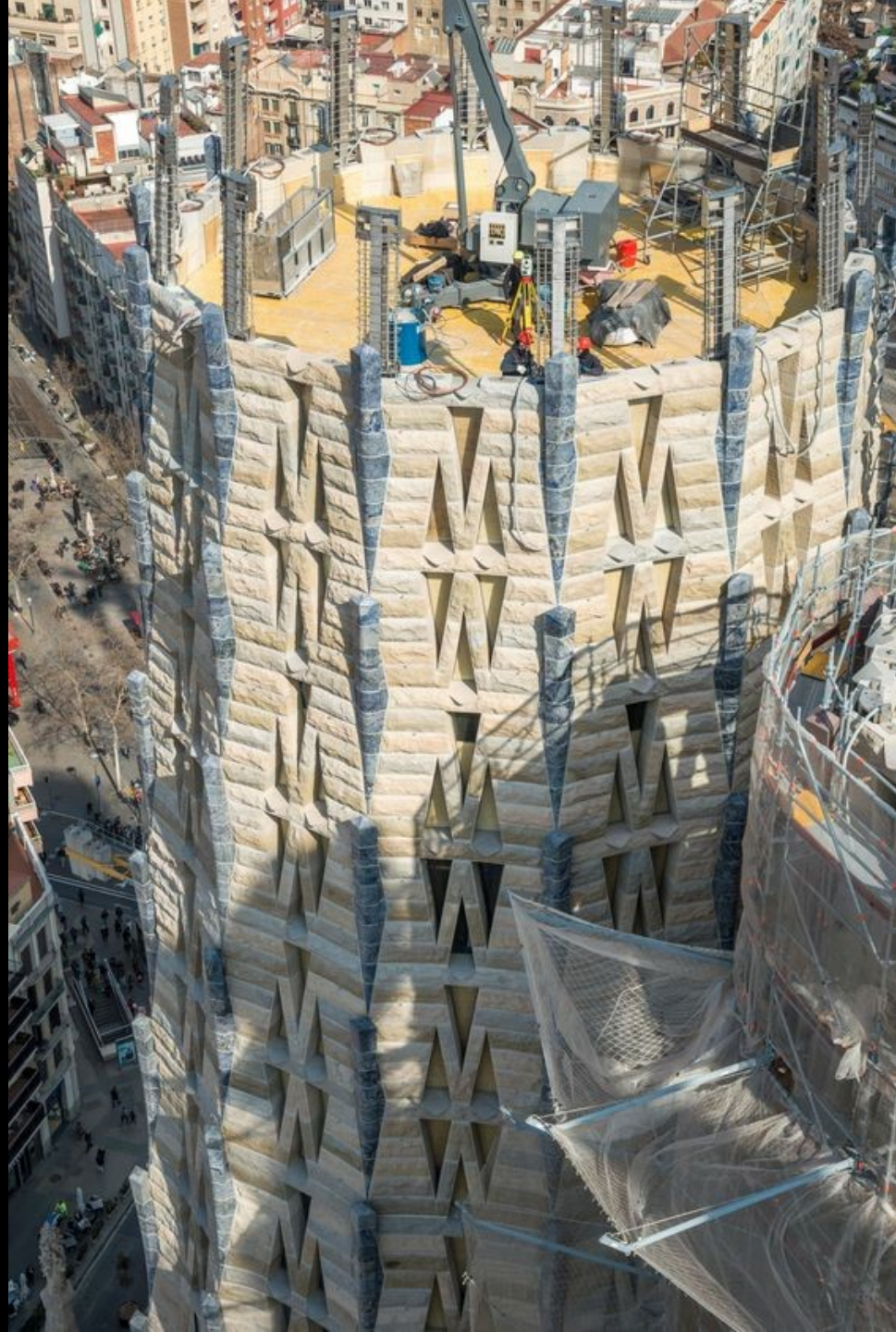






































100. 101. Final plan and cross section for the *Sagrada Família*.

