

*Argamassa Armada in Salvador de Bahia \_ Elements 1 : 1*

UE ENAC from ENAC IA ALICE in collaboration with ENAC IA IIC BETON\_2016

Joao Filgueiras Lima, Lele (1932 -2014)  
Oscar Niemeyer (1907 - 2012)

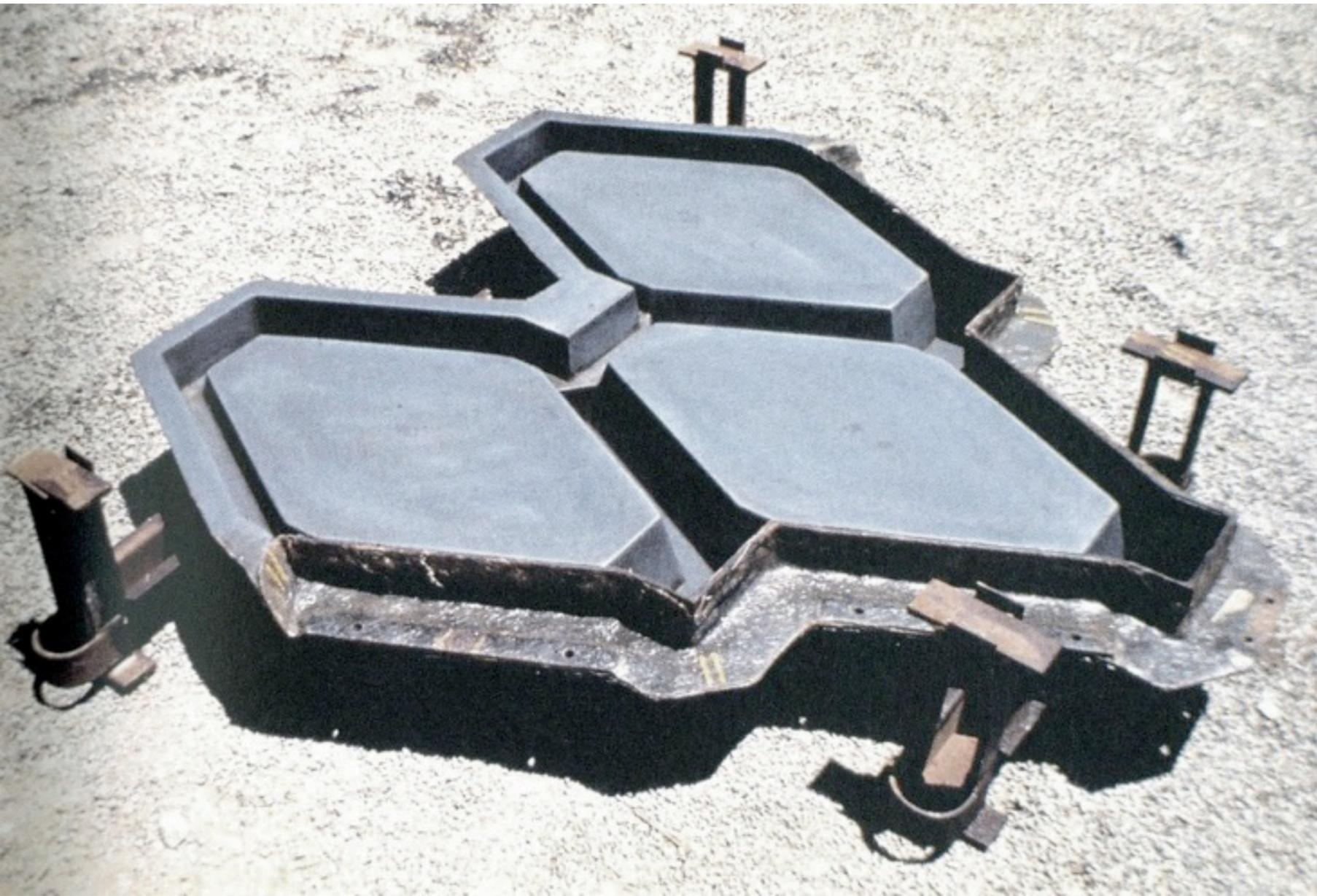




First factory, Abadiania, 1982 - 84



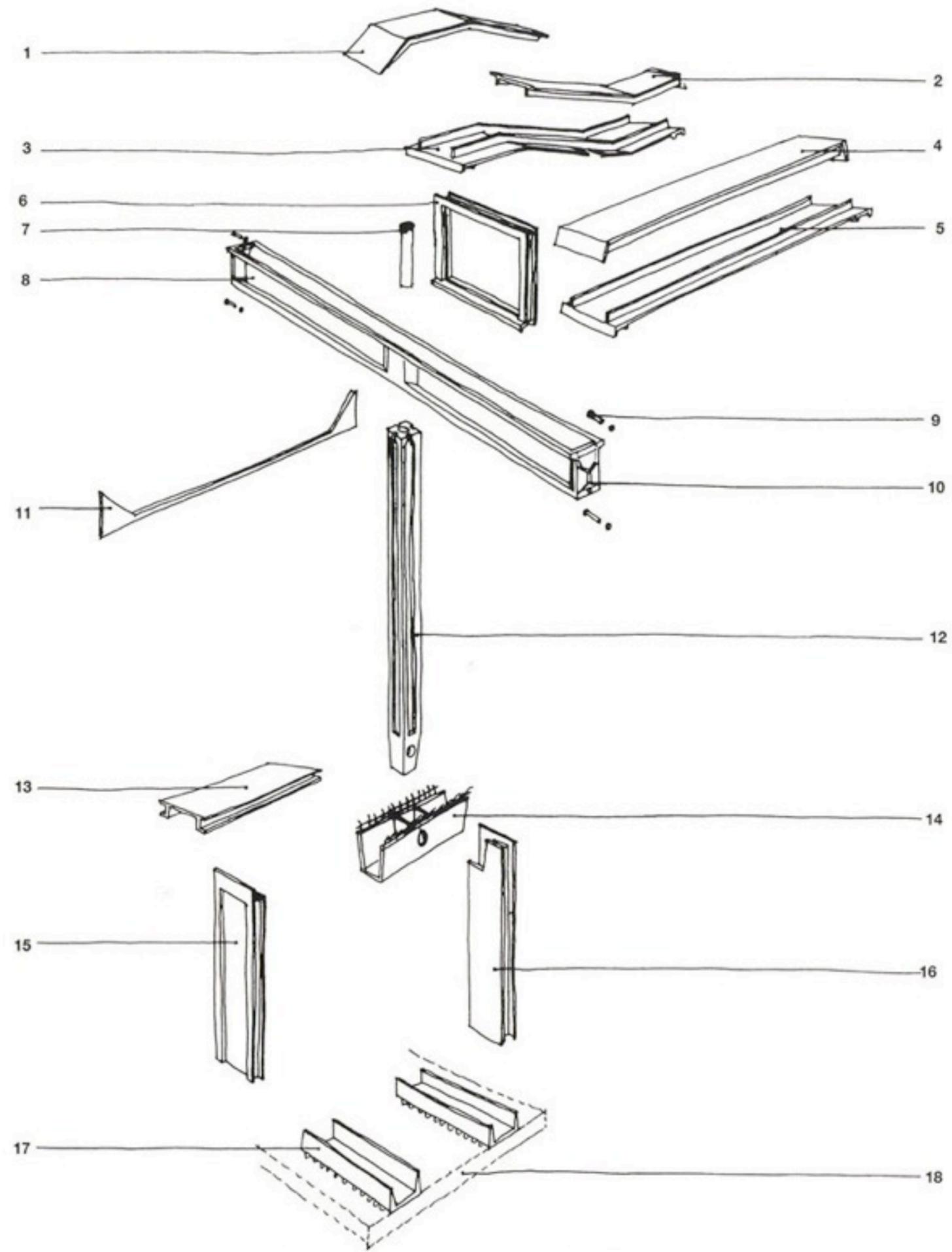
Second factory, Abadiania, 1982 - 84



Part with holder for ropes tying, Salvador 1989



Part with holder for ropes tying, Salvador 1989



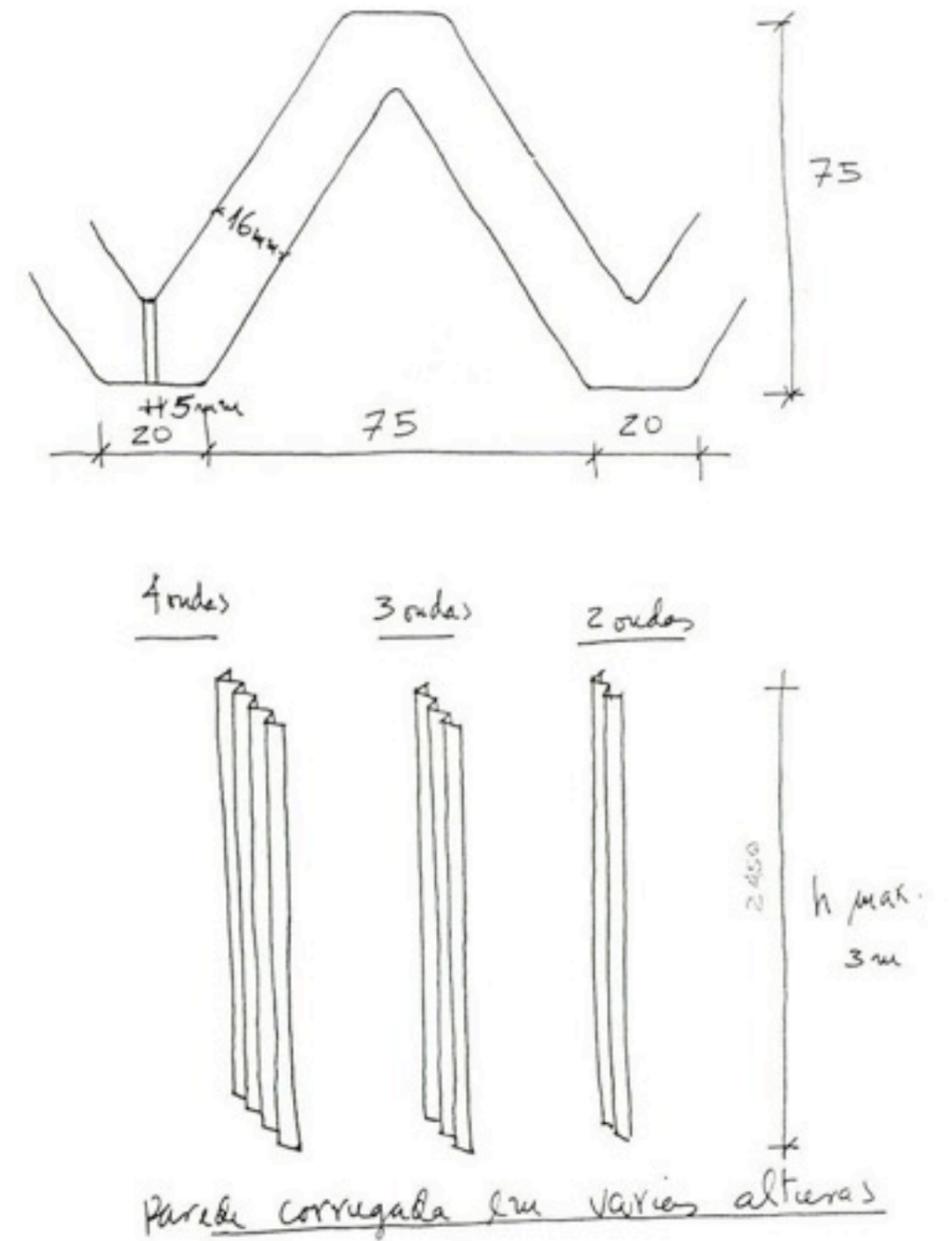
Study for future hospitals of Sarah Chain built with reinforcer mortar, 1988



Transitory School, pillars with an external cross-section of 15x15 cm with 1,5 x 4 cm slots in each face

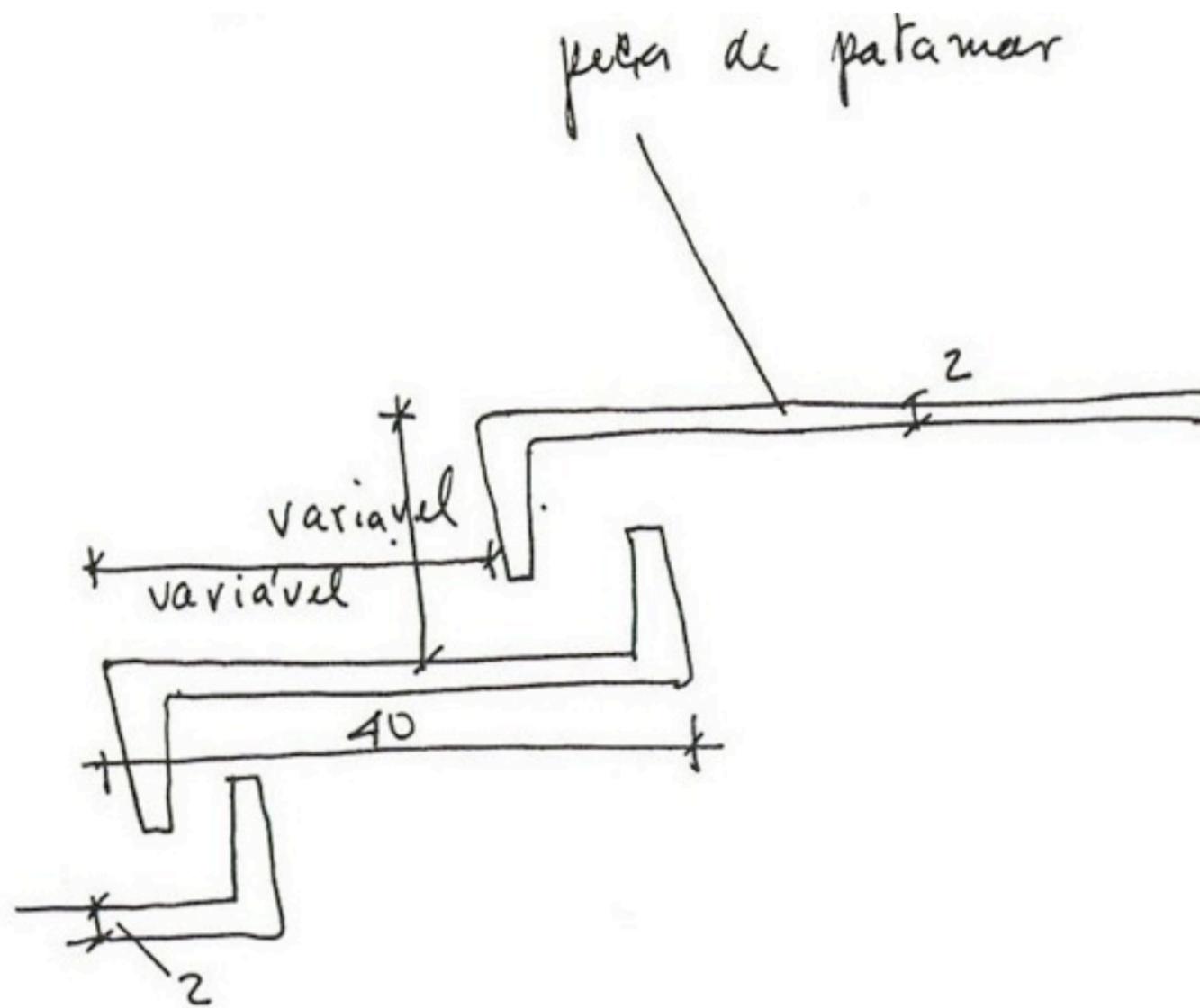


Recuperation of the historical Center , Assembly - FAEC Salvador, BA 1988 ,with Lina Bo Bardi



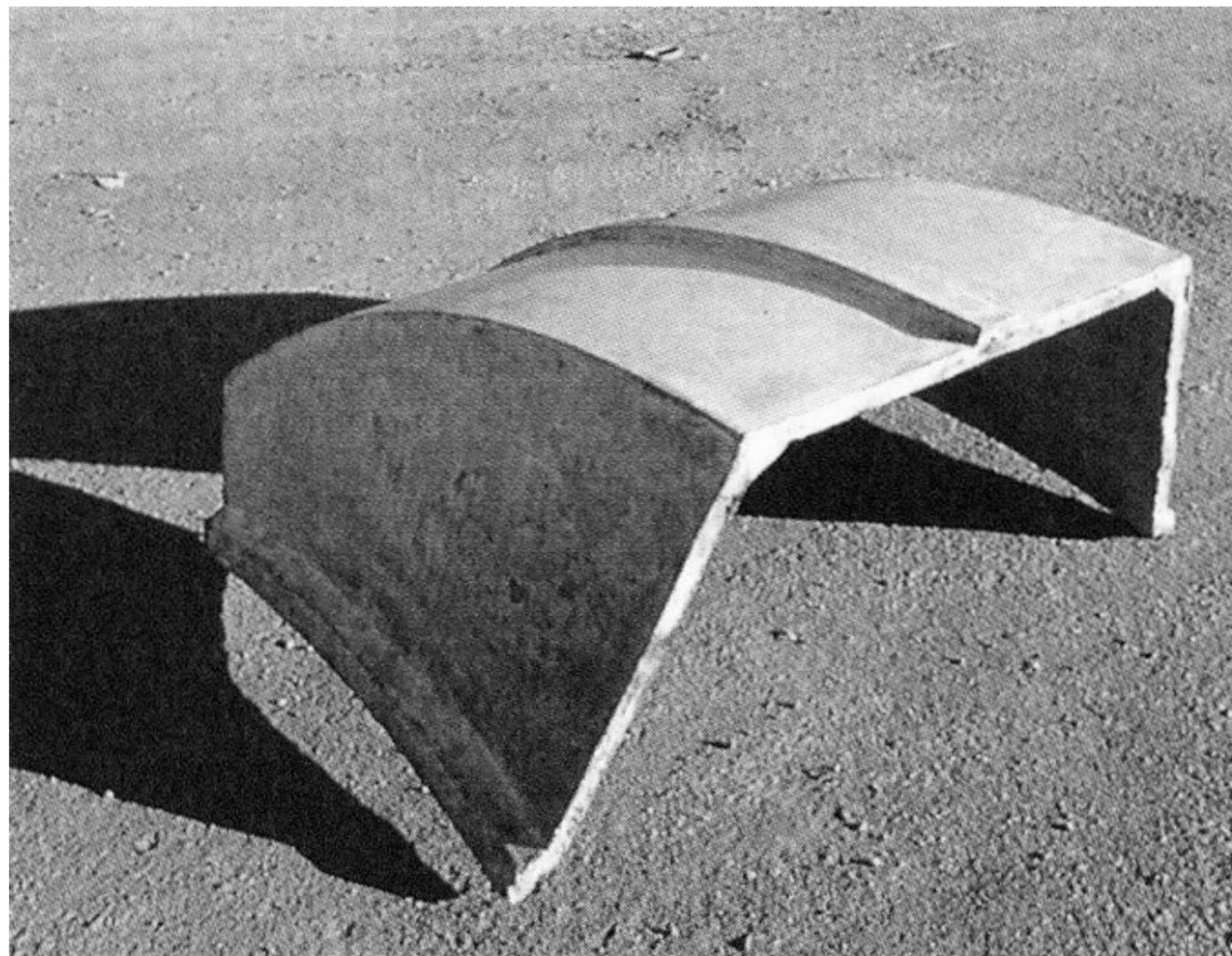


Section of the steps made in the factory with the extent of 1,25 m

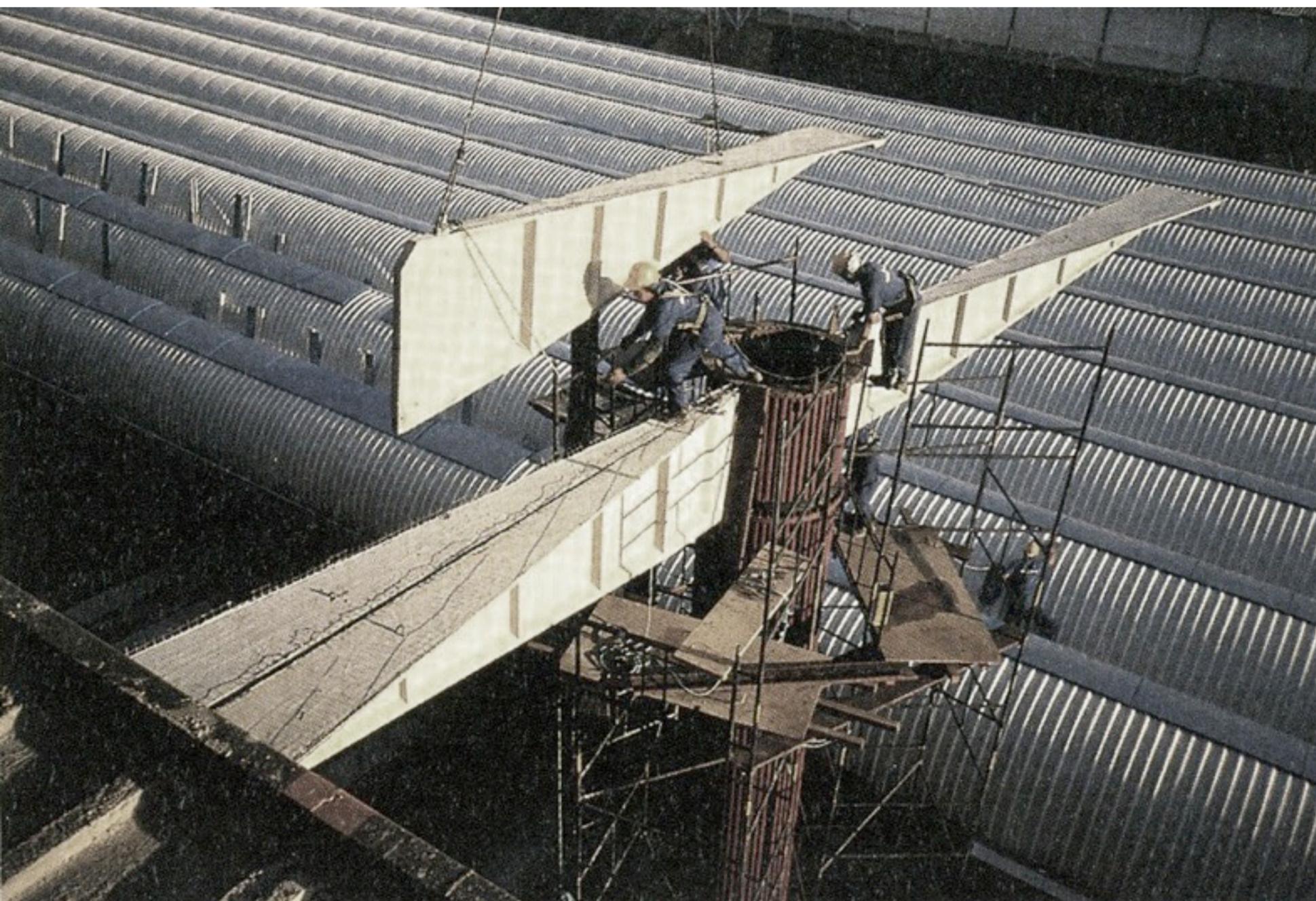




Shed, Day Nurseries, Salvador de Bahia, 1987

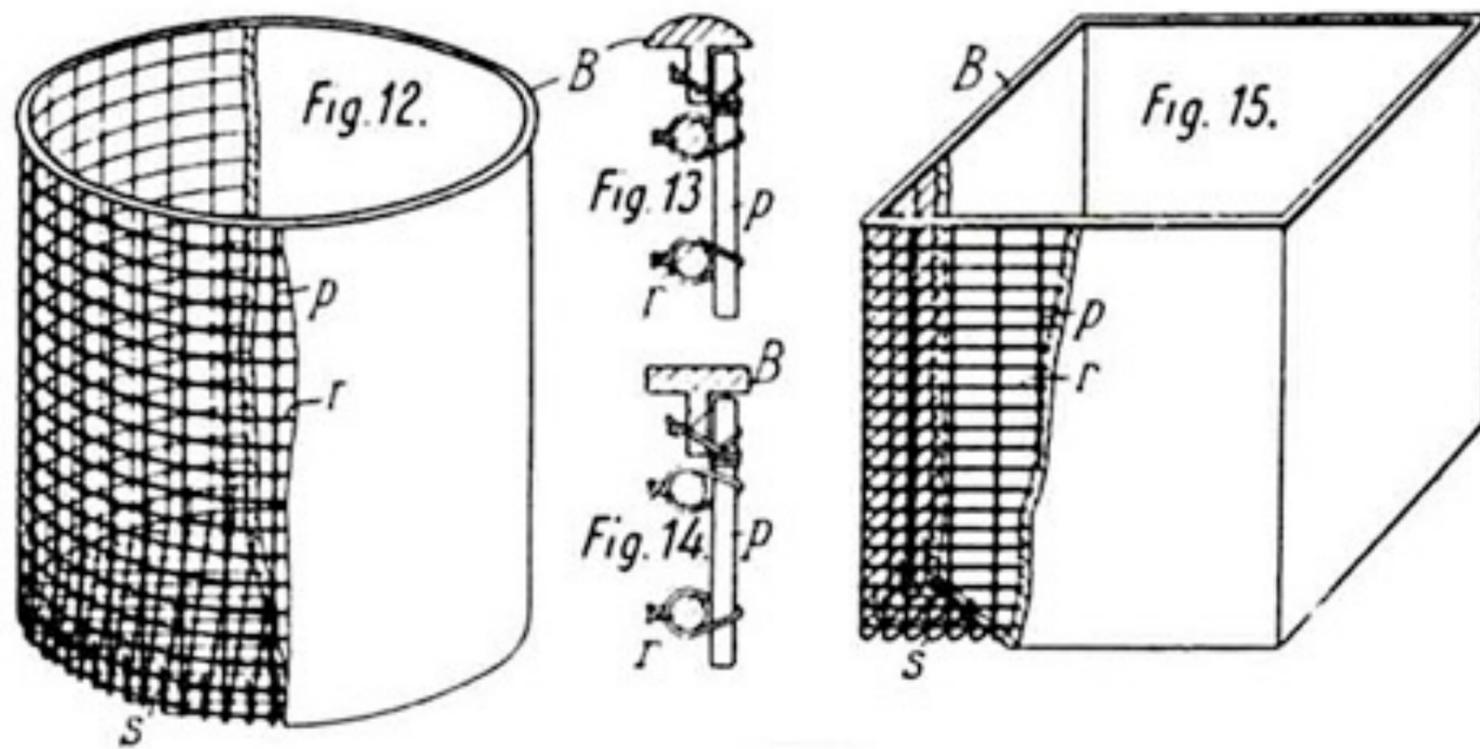


Shed, Day Nurseries, Salvador de Bahia, 1987



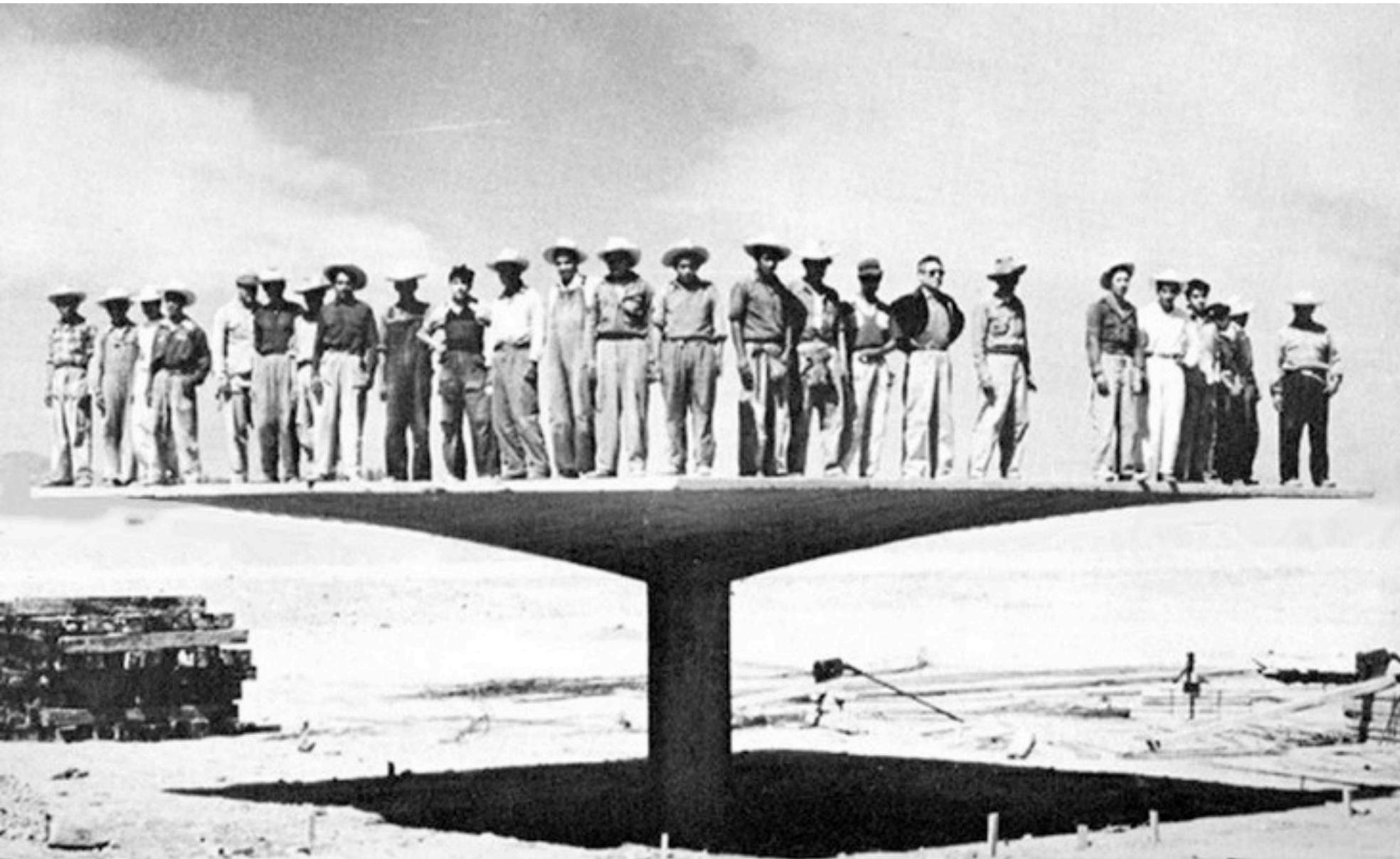
Assembly of the infirmaries solarium, Hospital, Fortaleza, 1991

> Birth of reinforced cementitious materials



Joseph Monier, Paris (1823 - 1906), First patent for Iron + Cement in 1867

> approx. 1867 + 100



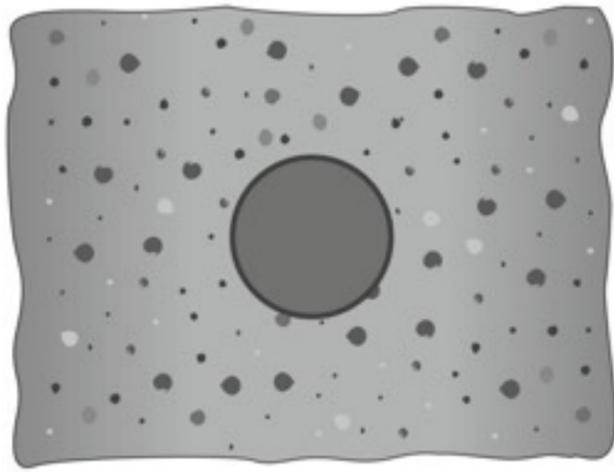
Félix Candela Outerino , Madrid, (1910-1997)

Escuela Superior de Arquitectura de Madrid, graduated in 1935

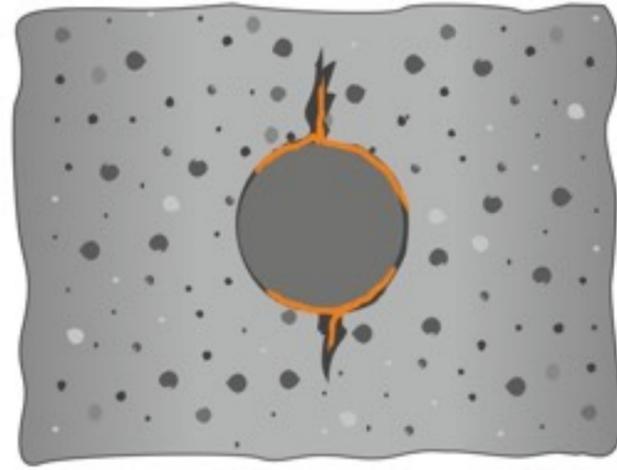
*> 2000 a.c = 1867 + 133*



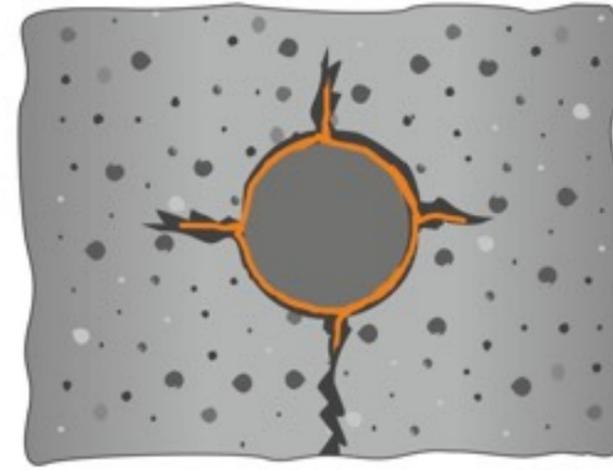
Reinforced Concrete (steel-reinforcement)



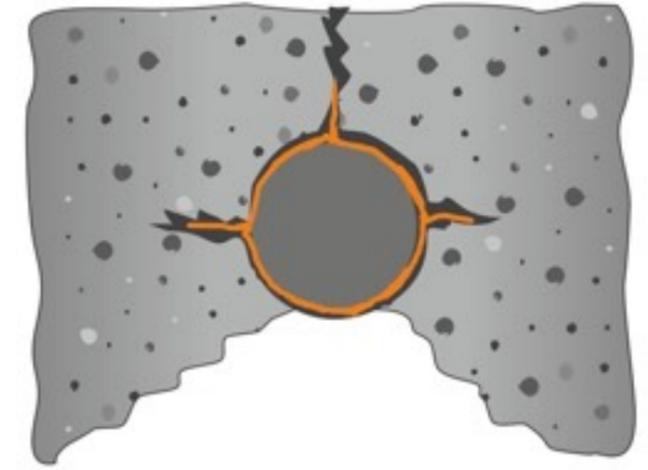
**BEFORE  
CORROSION**



**BUILT-UP OF  
CORROSION  
PRODUCTS**



**FURTHER CORROSION,  
SURFACE CRACK.  
STAINS,  
EVENTUAL SPALLING.**



**CORRODED BAR.  
EXPOSED.**

Corrosion process

> 2015 a.c = 1867 + 148



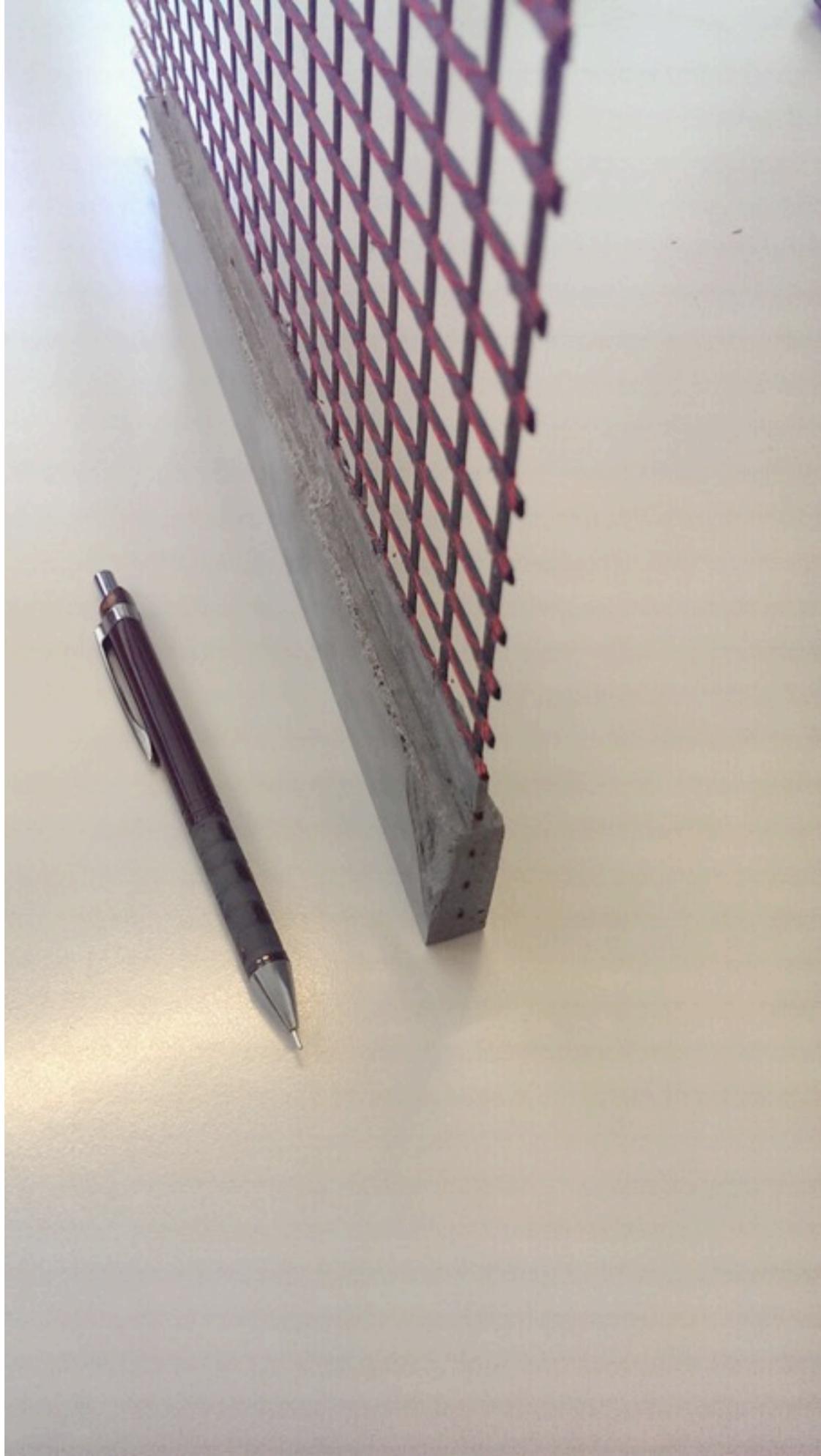
Concrete Cover min. 2.5-5.5 cm



Fiber Reinforced Concrete (Eternit), 1903



RWTH Pavillion Aachen. 2010



Test, i- beton EPFL

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- Agathe Mignon, Doctoral Assistant, ENAC IA ALICE

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