

# edilportale<sup>®</sup>

## TOUR 2017

Ristrutturazione, riqualificazione  
energetica, comfort abitativo,  
adeguamento antisismico, BIM



Roofingreen



**Brescia, 17 Maggio 2017**

**Arup: Data Driven Design**

**Vincenzo Montefusco**

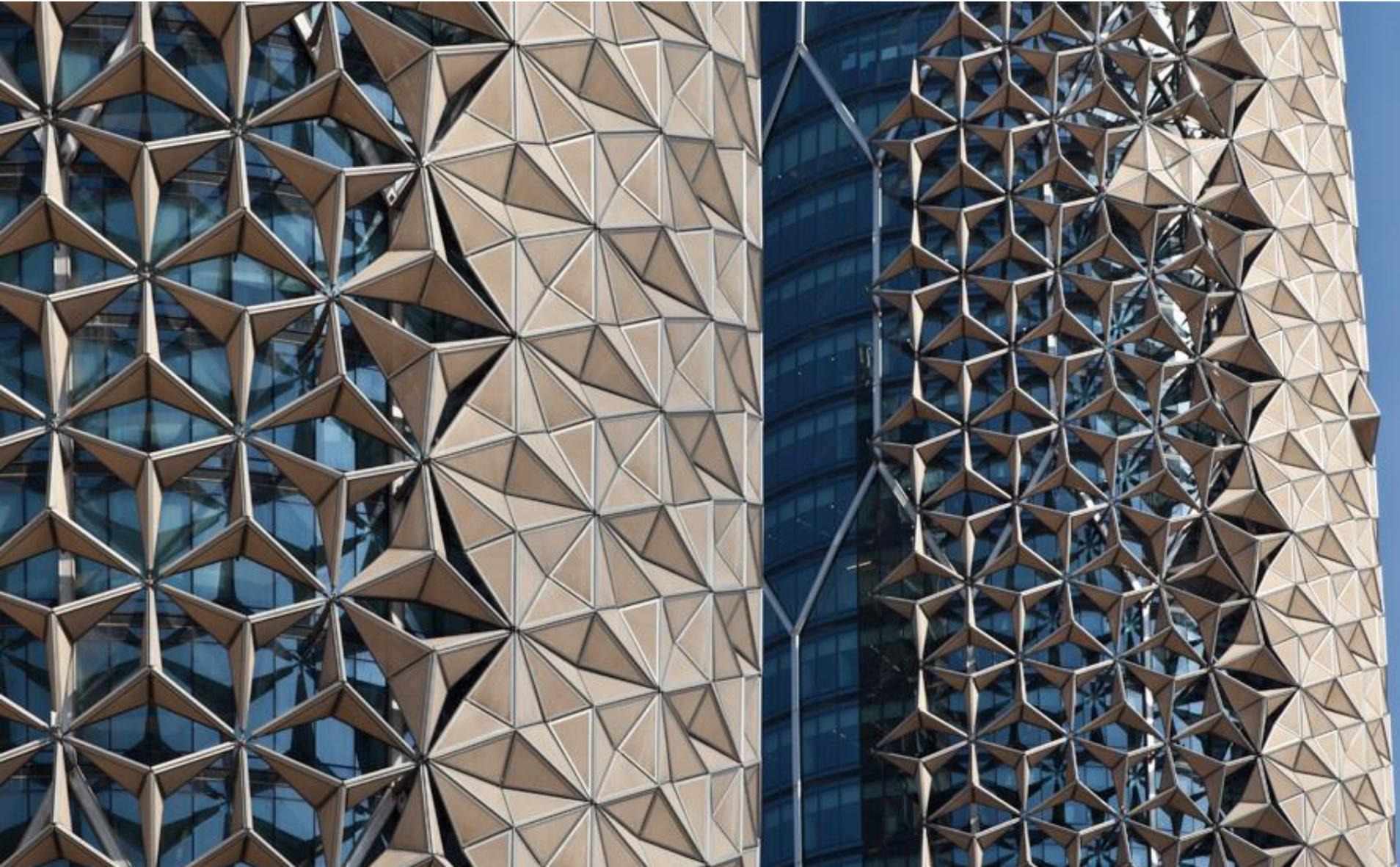




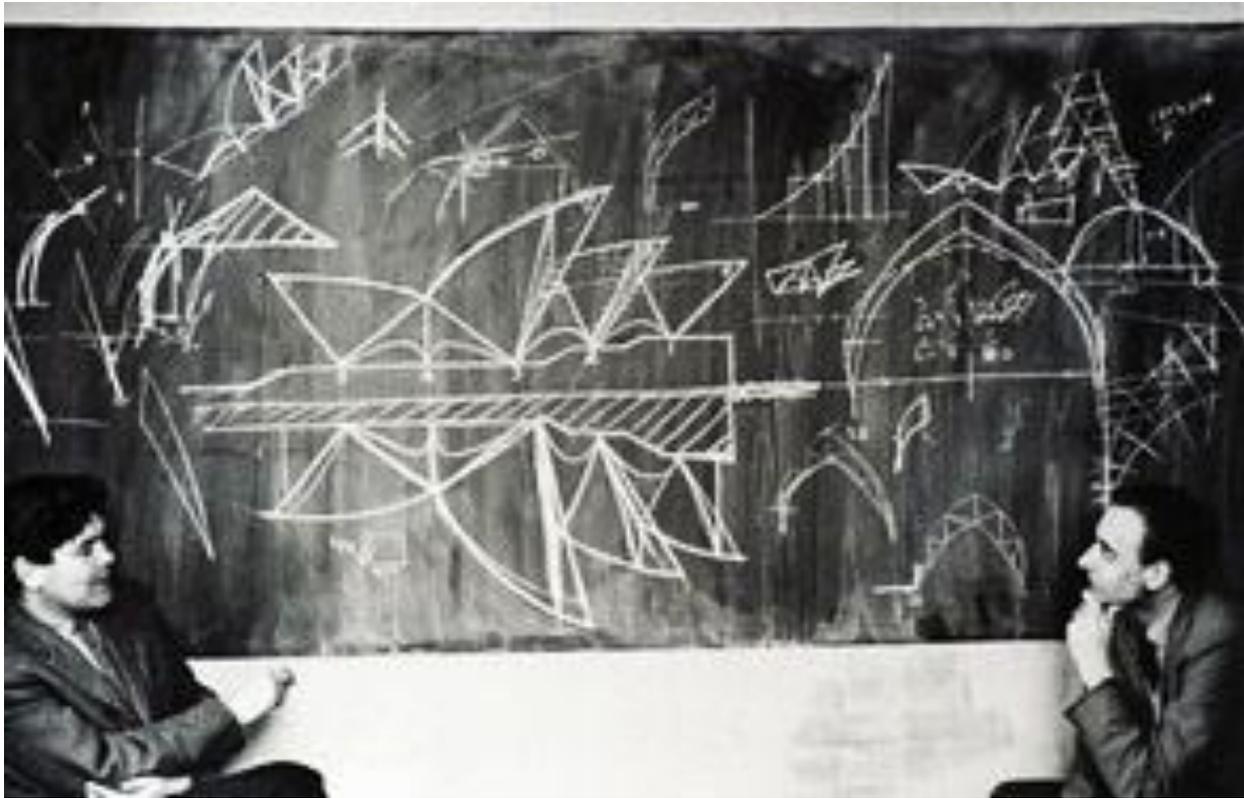


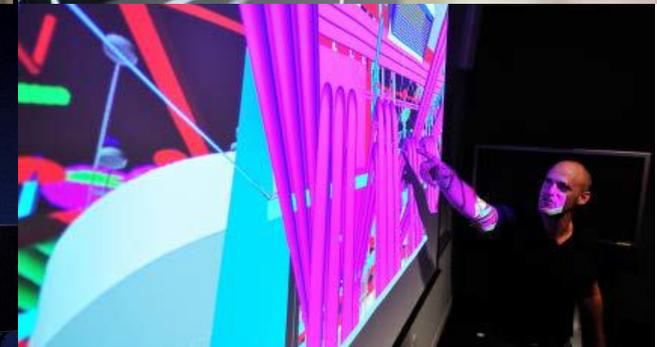
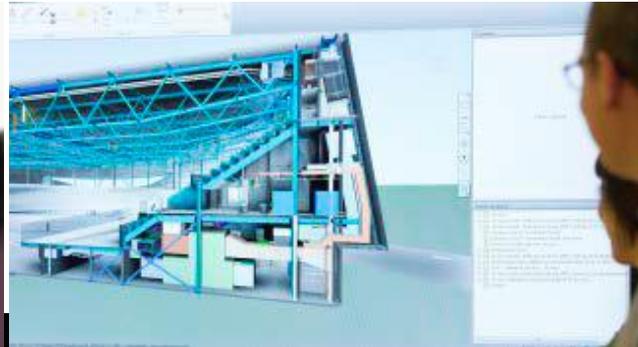






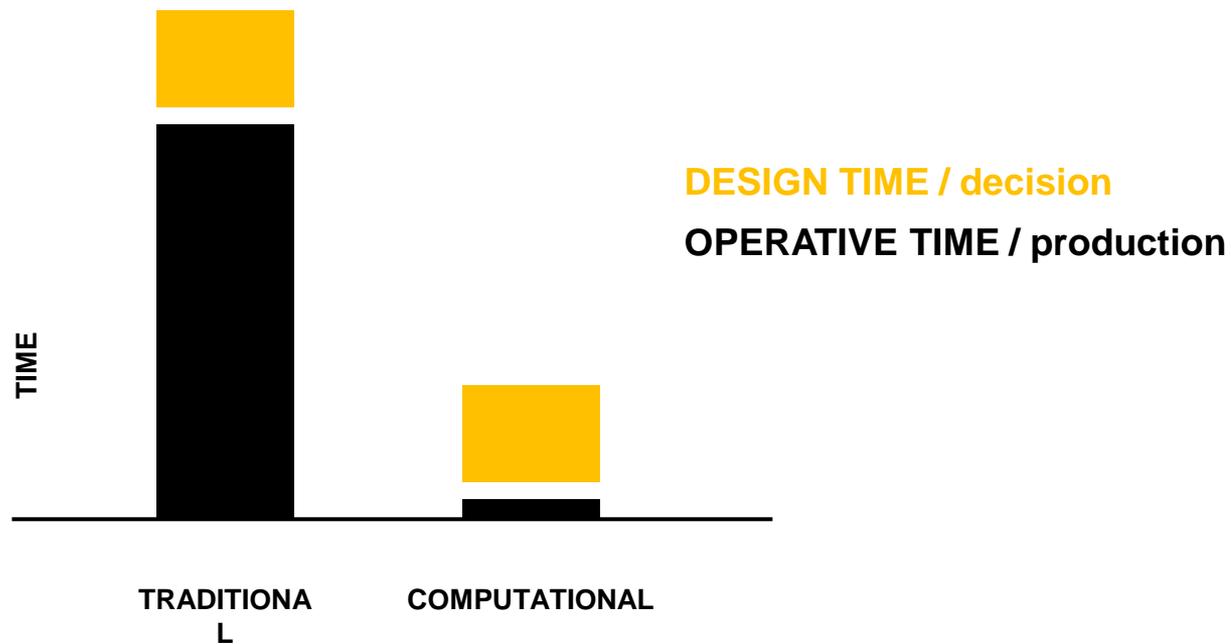




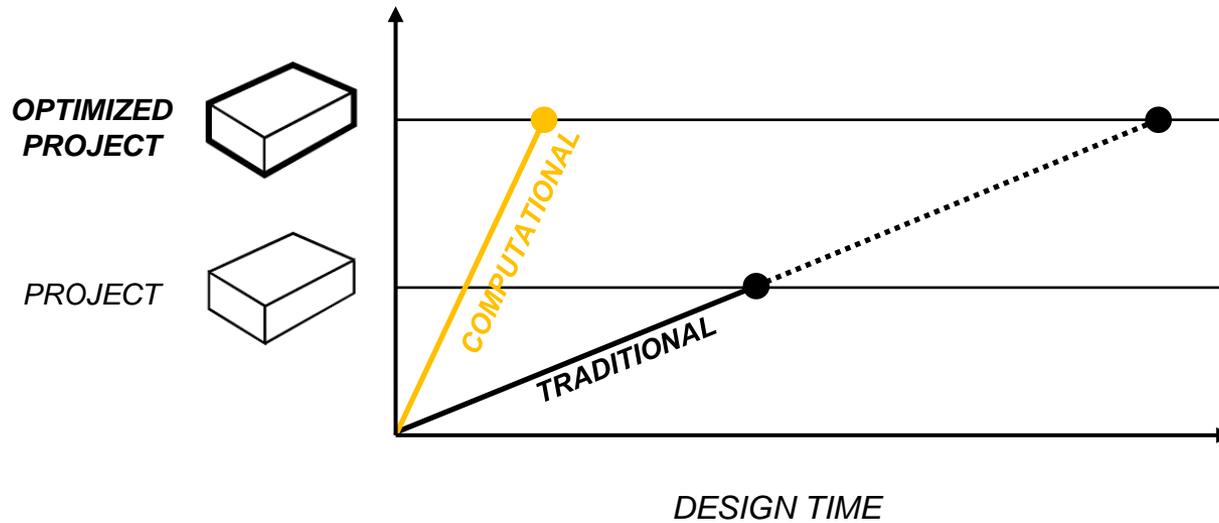


***PERCHÉ DIGITAL ?***

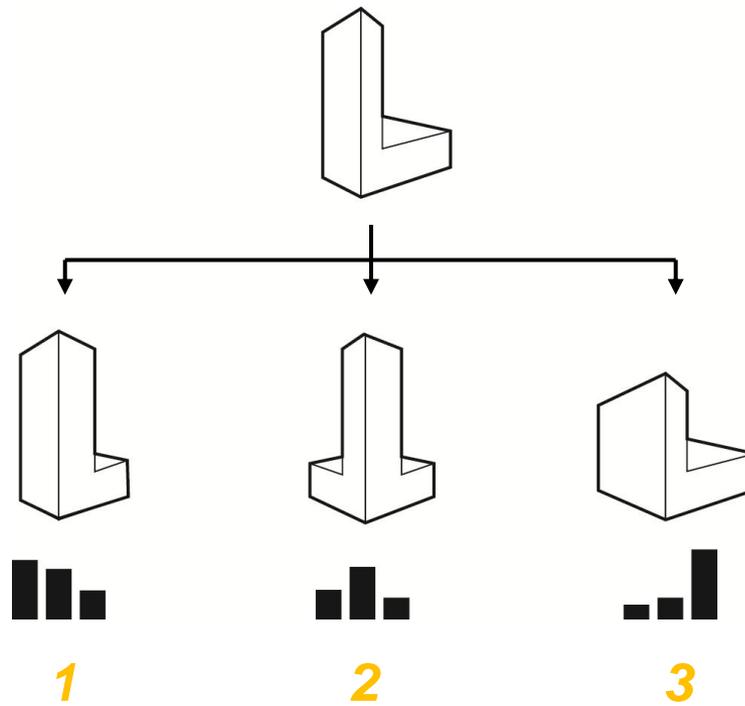
***SAVE  
TIME***



## OPTIMIZE SOLUTIONS



## ***INFORM DECISION***



***DESIGN  
OPTIONS***

**ARUP**  
EXPLORING SOLUTIONS

**SHADOW**

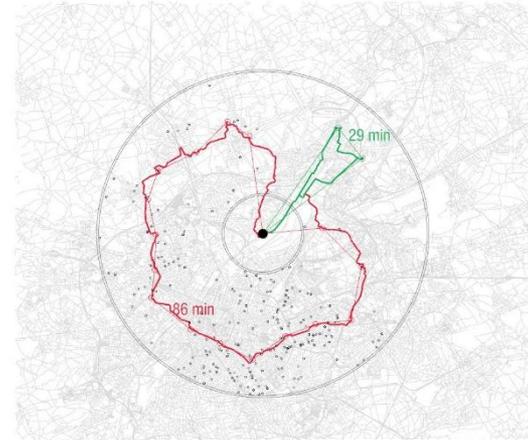
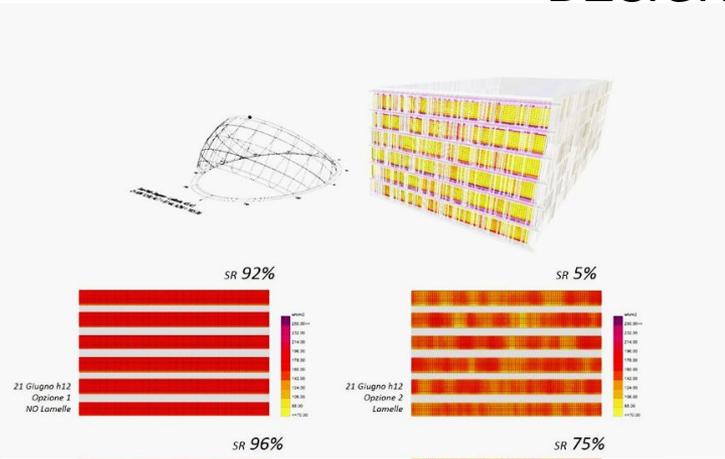
- RUN
- INSTANT
- WHOLE DAY
- 1/2 2.4h

**INSOLATION (I)**

- RUN
- CUMULATIVE
- PEAKS
- INSTANT
- 1/2 2.56h

**INSOLATION (II)**

- RUN
- THRESHOLD (W/m2) 45
- PLAZZABO (S-YALM) 0.5 / 0.5



**ARUP**  
EXPLORING SOLUTIONS

**CONTROL PARAMETERS**

- INTERNAL DIAMETER (m) 2.0
- EXTERNAL DIAMETER (m) 8.0
- POLAR (deg) 17
- DISTANCE (m) 2.0

**VISUALIZATION**

- PICK-UP POINTS NETWORK
- SIMPLIFIED BUS ROUTES
- REAL BUS ROUTES (takes few seconds)
- GOOGLE-MAP BUS ROUTES

**TOTAL LENGTH (km)**

67.4

20 40 60 80 100

**ARUP**  
EXPLORING SOLUTIONS

OFFICE TO TEST

Scale 0 20

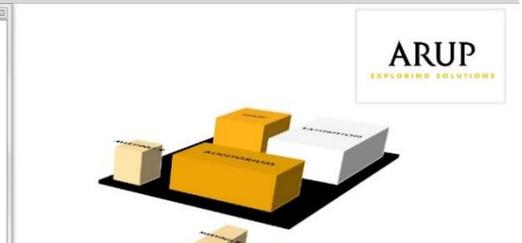
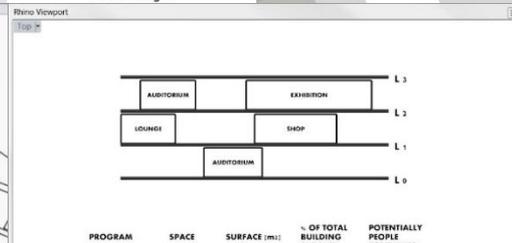
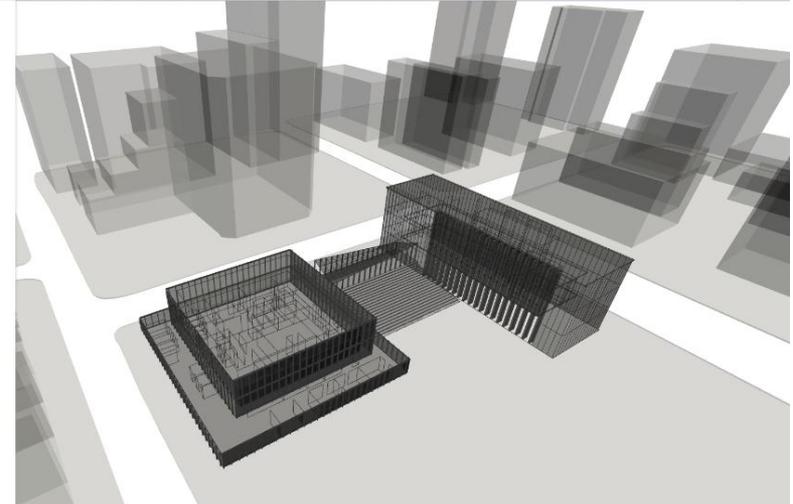
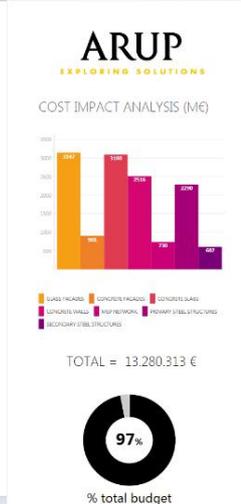
DESIGN OPTION

option 1

RAISE GRAPH

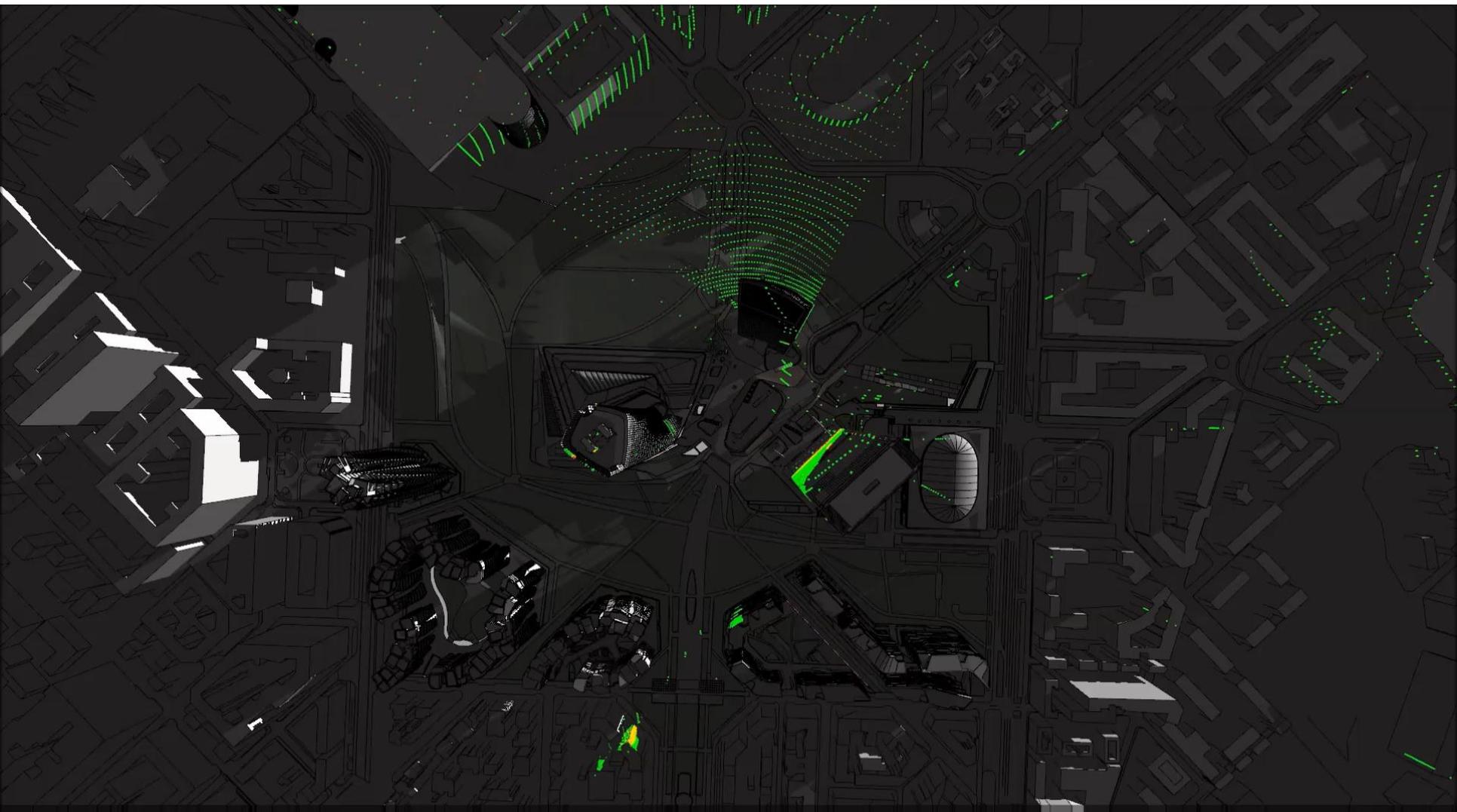
Scale 0 10

EXPORT TO REVIT

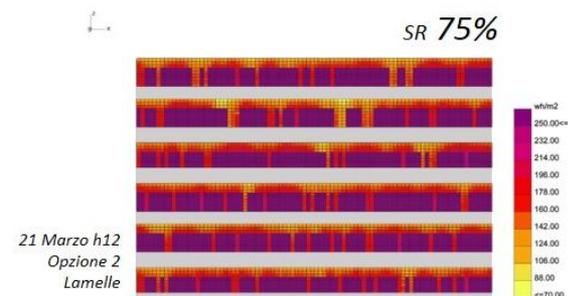
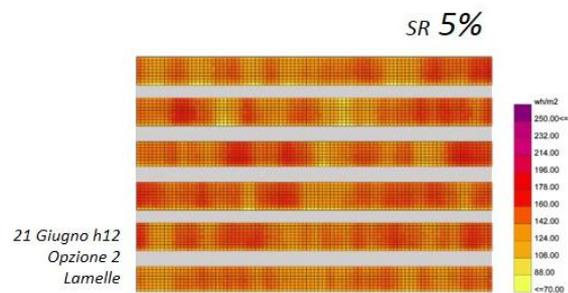
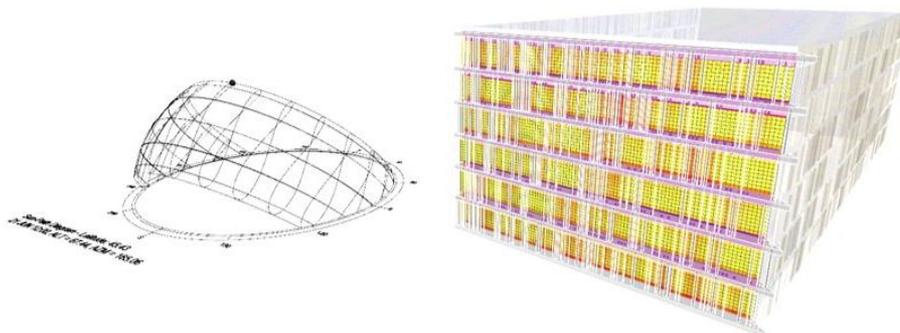


## ***REFERENCES***



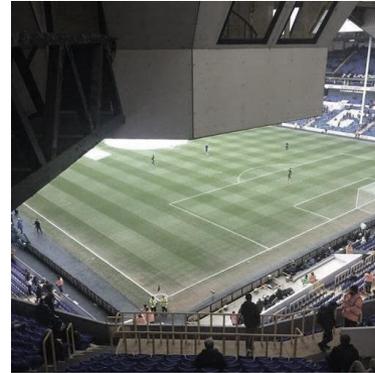






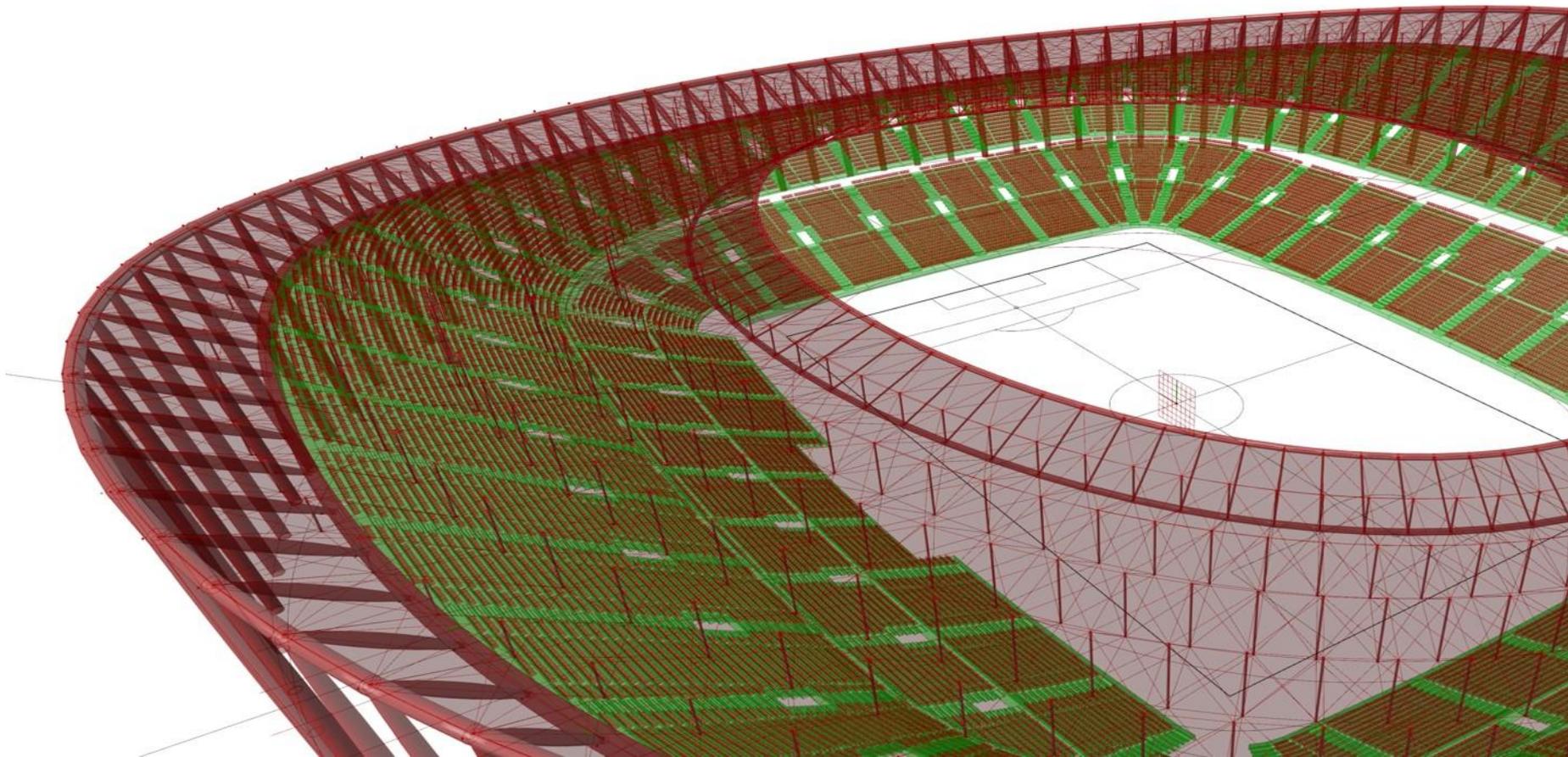




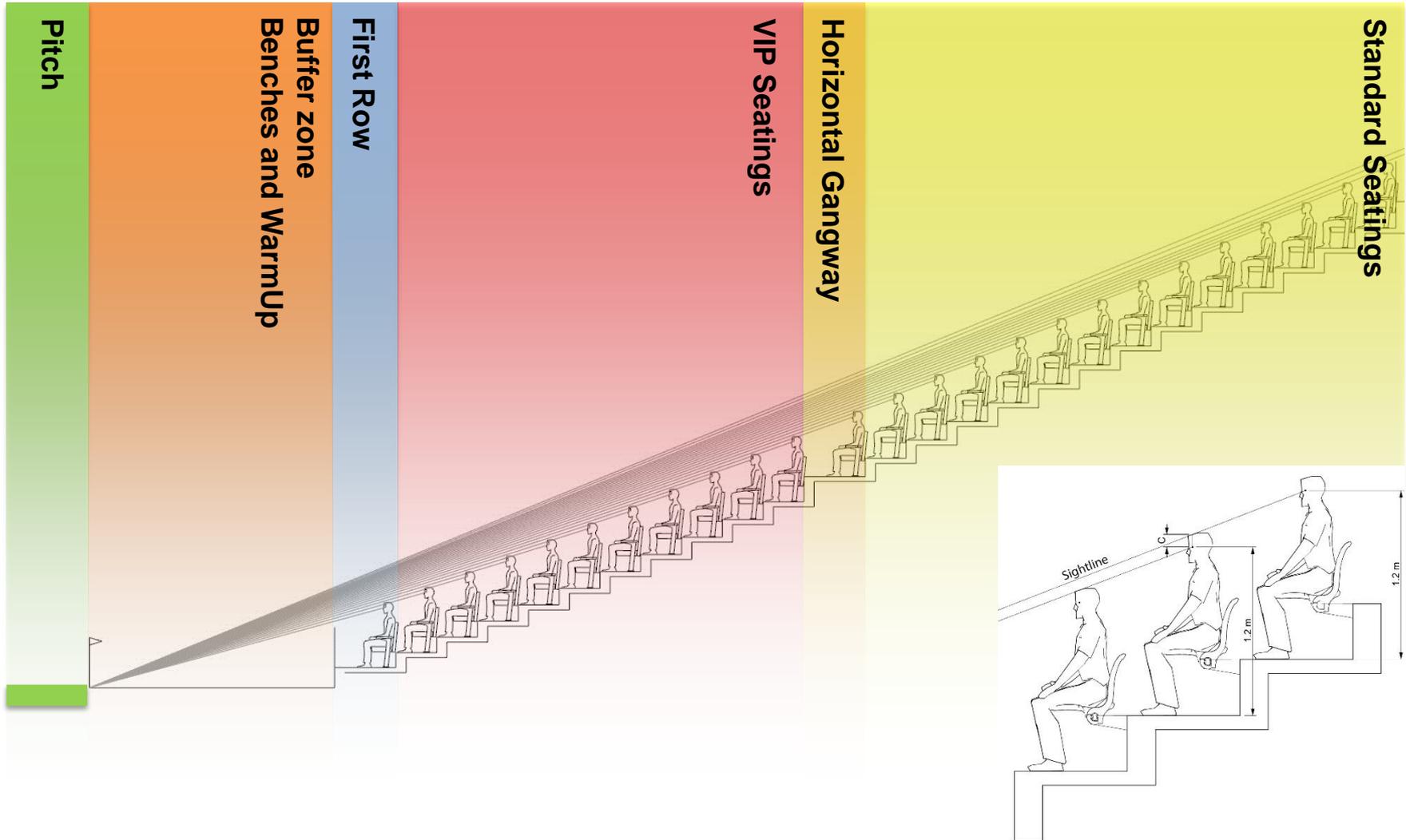


*Lo Stadio è un'opera definita da **regole precise**.*

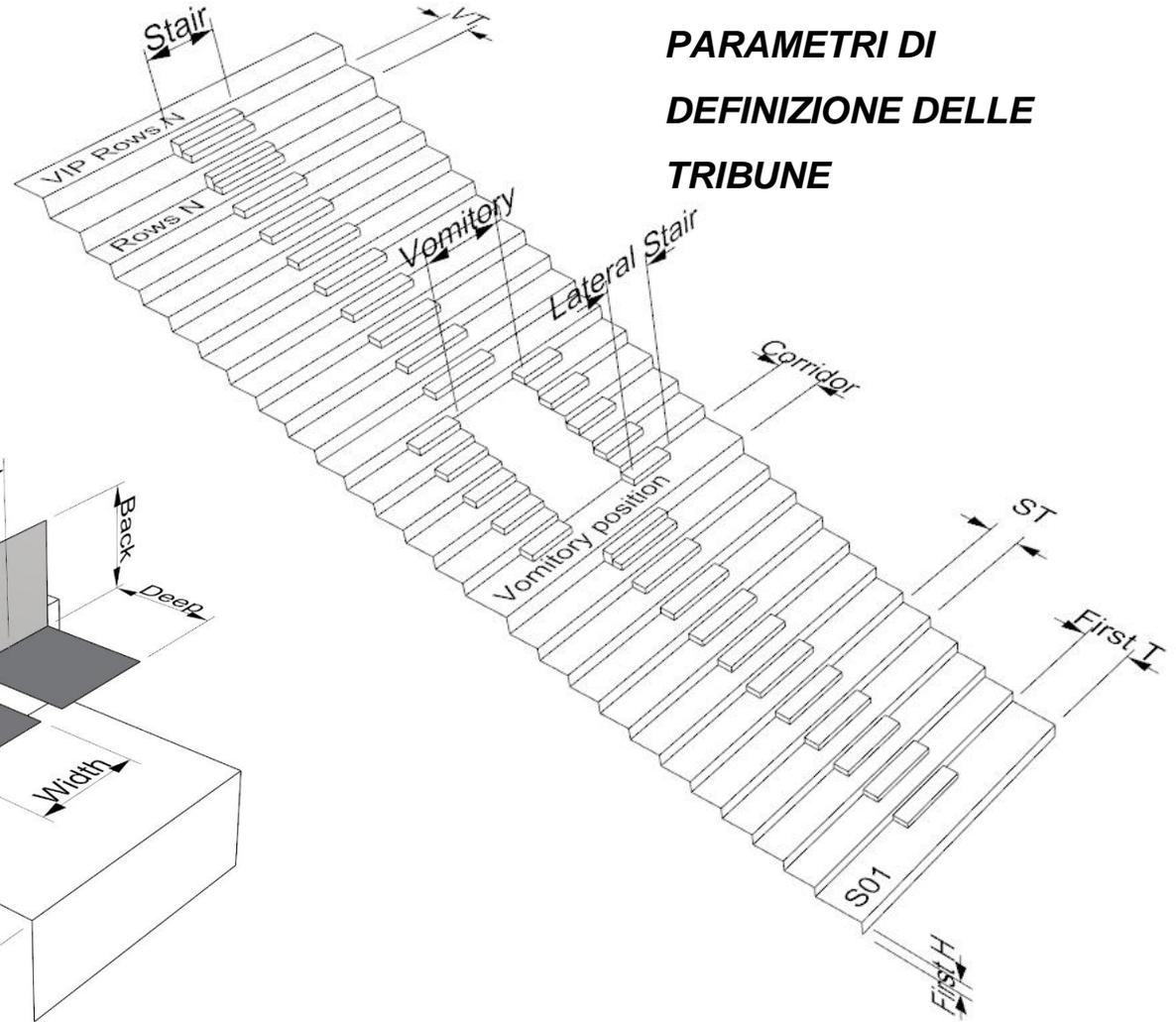
*Visibilità degli spettatori, sicurezza e accessibilità sono alcuni dei **fattori che ne determinano la forma**.*



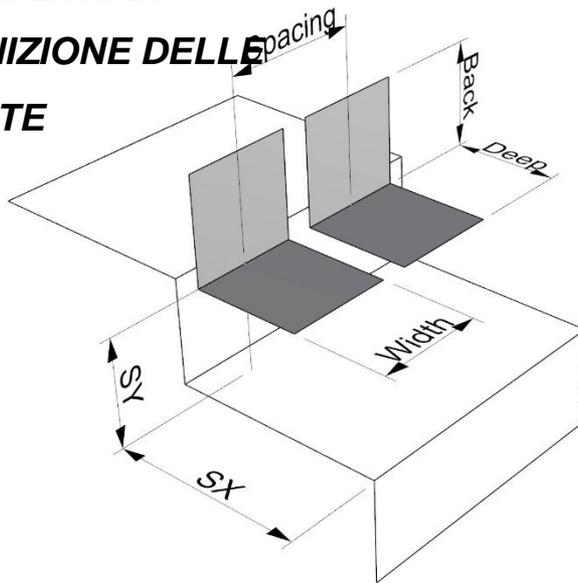
*DEFINIZIONE DELLA TRIBUNA*



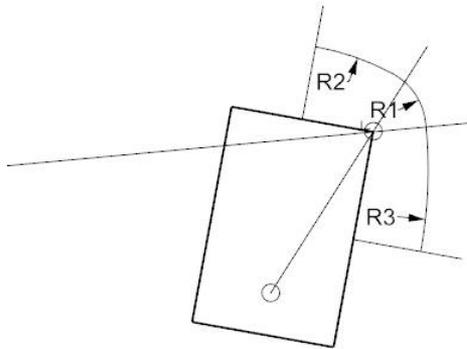
**PARAMETRI DI  
DEFINIZIONE DELLE  
TRIBUNE**



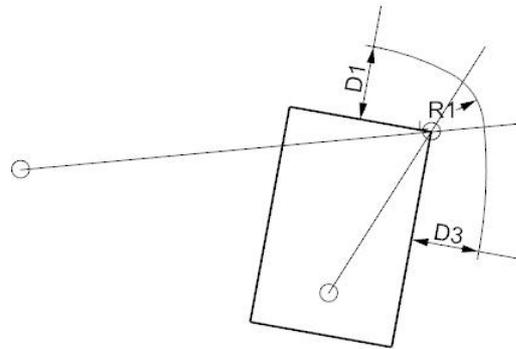
**PARAMETRI DI  
DEFINIZIONE DELLE  
SEDUTE**



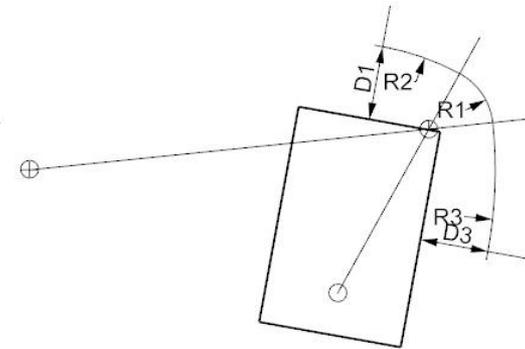
1 Metodo



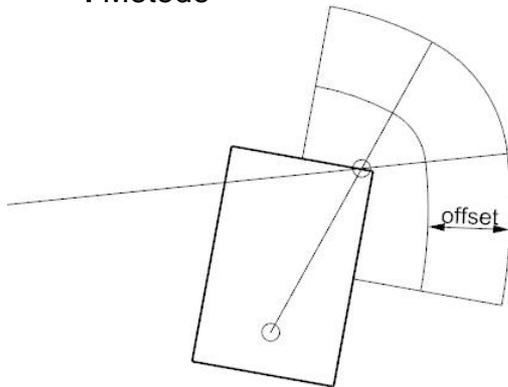
2 Metodo



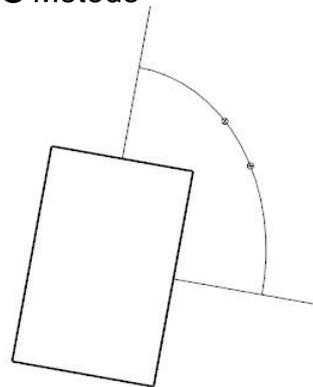
3 Metodo

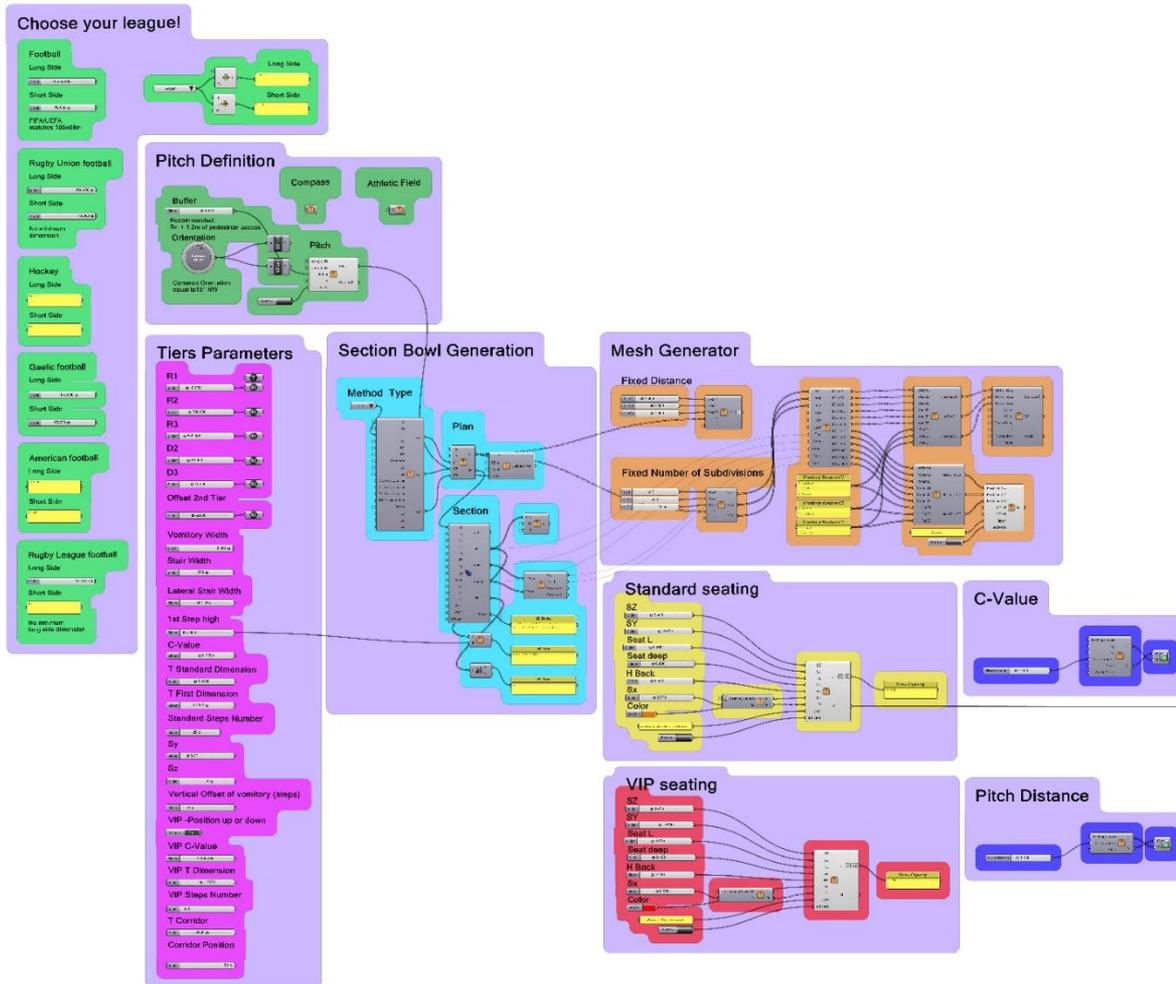


4 Metodo

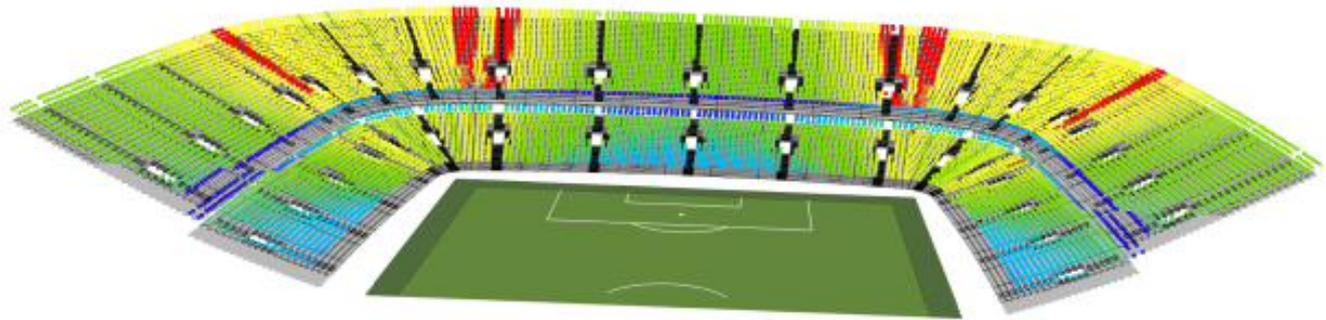


5 Metodo

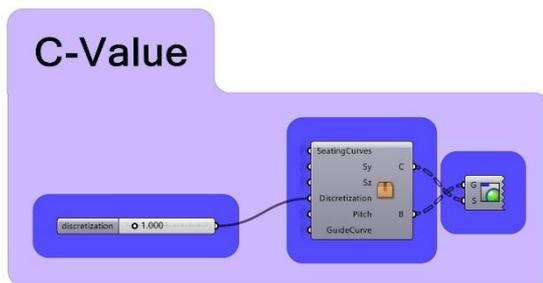




- PITCH GENERATION*
- PARAMETERS*
- SECTIONS GENERATION*
- BOWL MESH*
- SEATS*
- C-VALUE*
- FIELD DISTANCE*



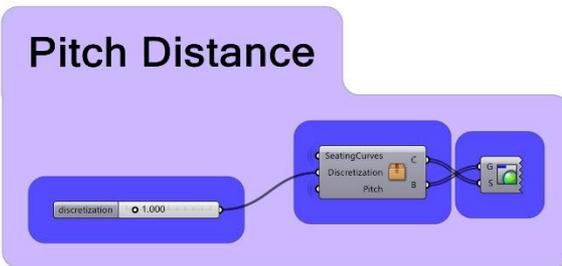
## SCRIPT DI ANALISI DEL CATINO



Possiamo rilevare il C-Value di ogni singola seduta



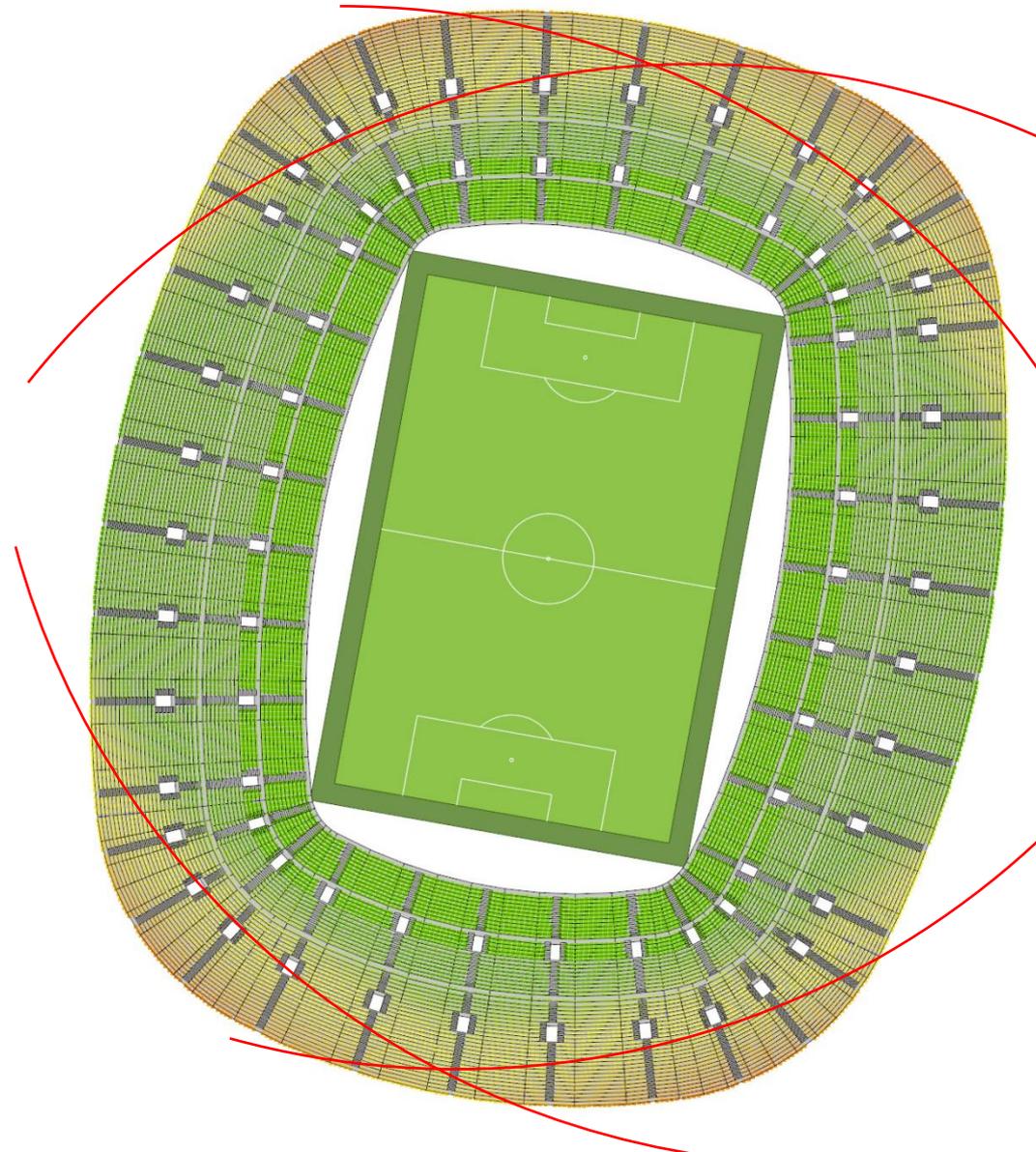
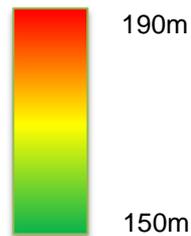
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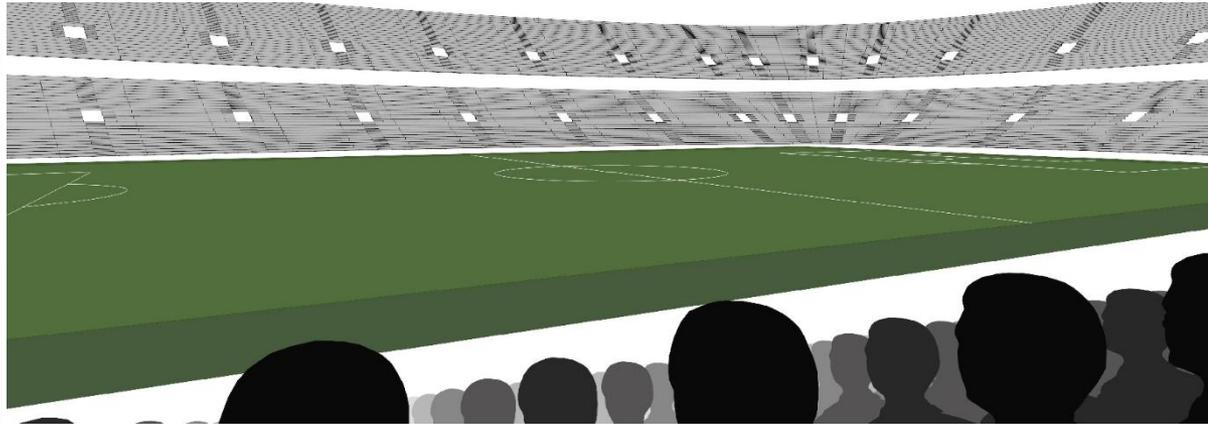


Possiamo rilevare la distanza di ogni seduta dal corner opposto.

Interpolazioni di differenti fattori rappresentano la qualità globale di ogni singola seduta

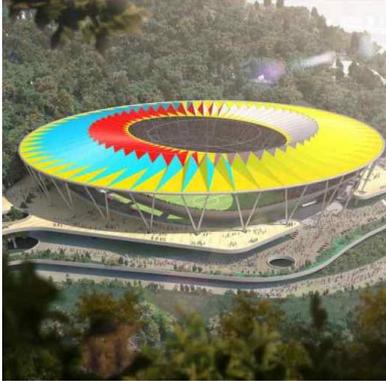
**Distanza dal  
corner  
opposto**











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**ARUP**