

# La Philharmonie de Paris

Christopher Day

MARSHALL DAY   
Acoustics





PHILHARMONIE  
DE PARIS

2015 Season: Book now!



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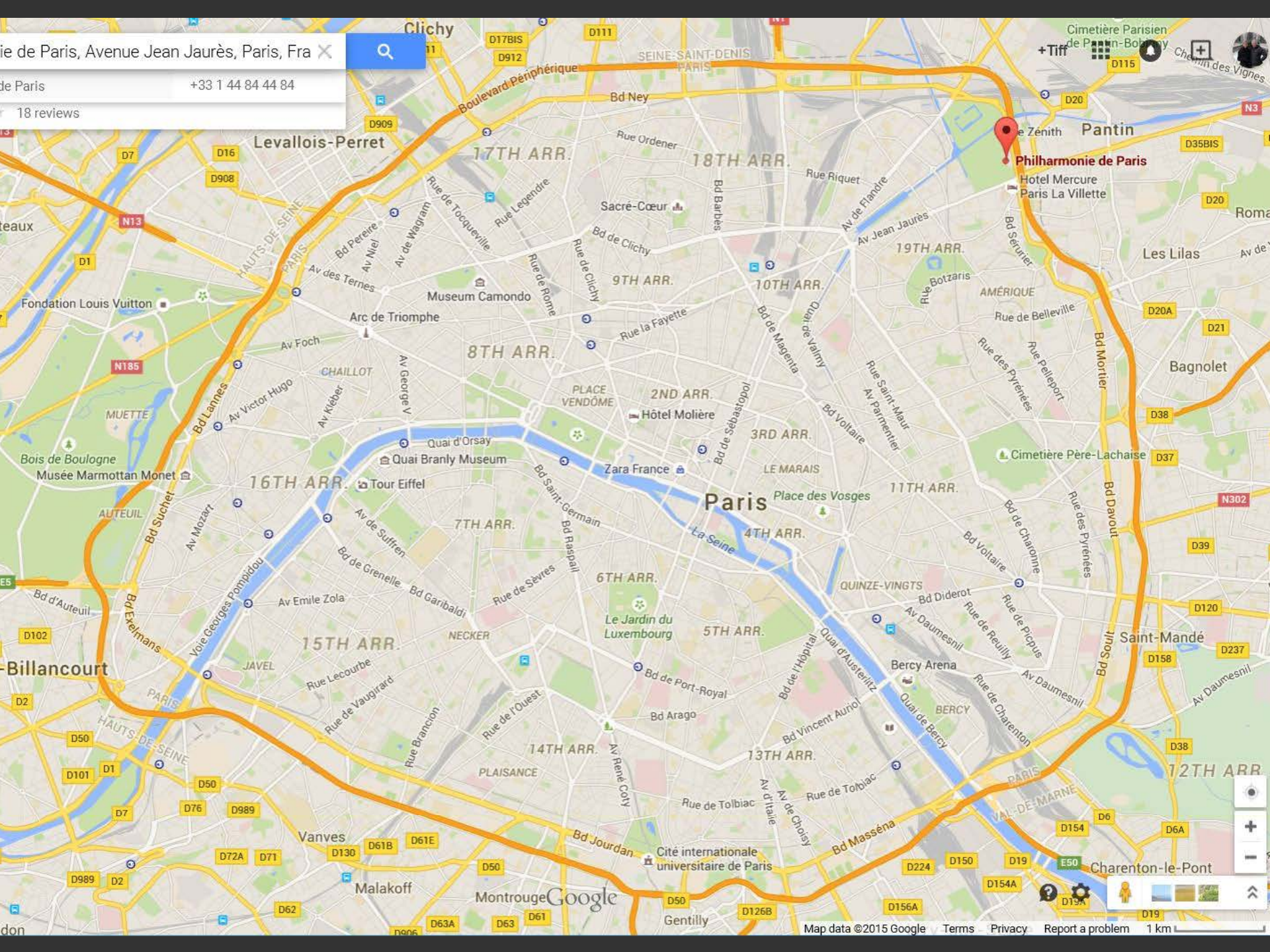


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# Background

- The Client
  - Philharmonie de Paris
  - Ministry of Culture/City of Paris
- The History
- The Site

ie de Paris, Avenue Jean Jaurès, Paris, Fra X  
de Paris +33 1 44 84 44 84  
18 reviews



Philharmonie de Paris  
Hotel Mercure Paris La Villette

Paris



# Follies – Bernard Tschumi









# The Competition

- 98 international teams
- Credentials for short list of 5
- Call from Jean Nouvel

# Why MDA?

- Client's Acoustician
- International reputation
- Innovative design
- 26 December 2006  
Credentials
- 90 pages of govt forms



# We Made it !

5 January 2007

- Jean Nouvel/MDA Team
- 2 other French Architects
- Zaha Hadid
- 1 Austrian
- 1 Dutch

# The Design Competition

- 10 weeks
- 6 teams
- 98 page Architectural Brief

# 40 Page Acoustical Brief

- Called for:
  - Surrounding seat layout
  - Clarity *and* reverberance
  - 10 objective criteria specified
  - Adaptability for all musical genres
  - A new typology – not .....



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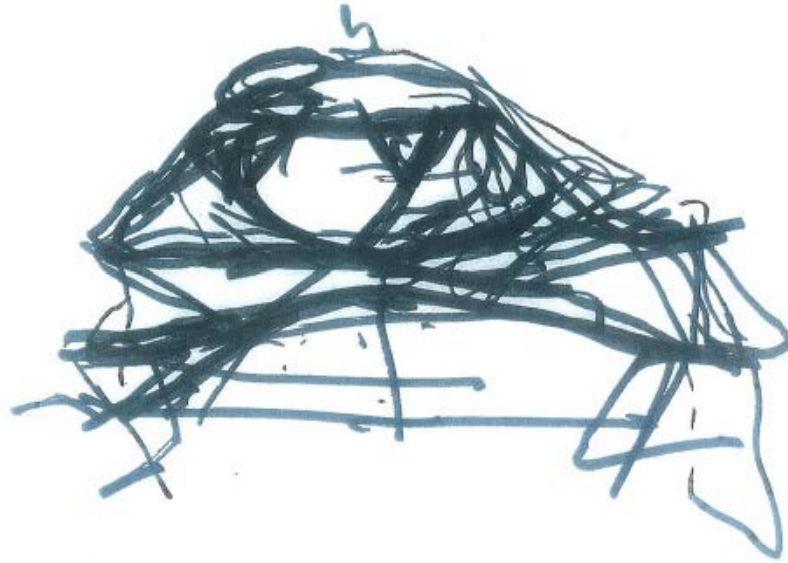


Week 3

Our team of youngsters arrives on a high.....

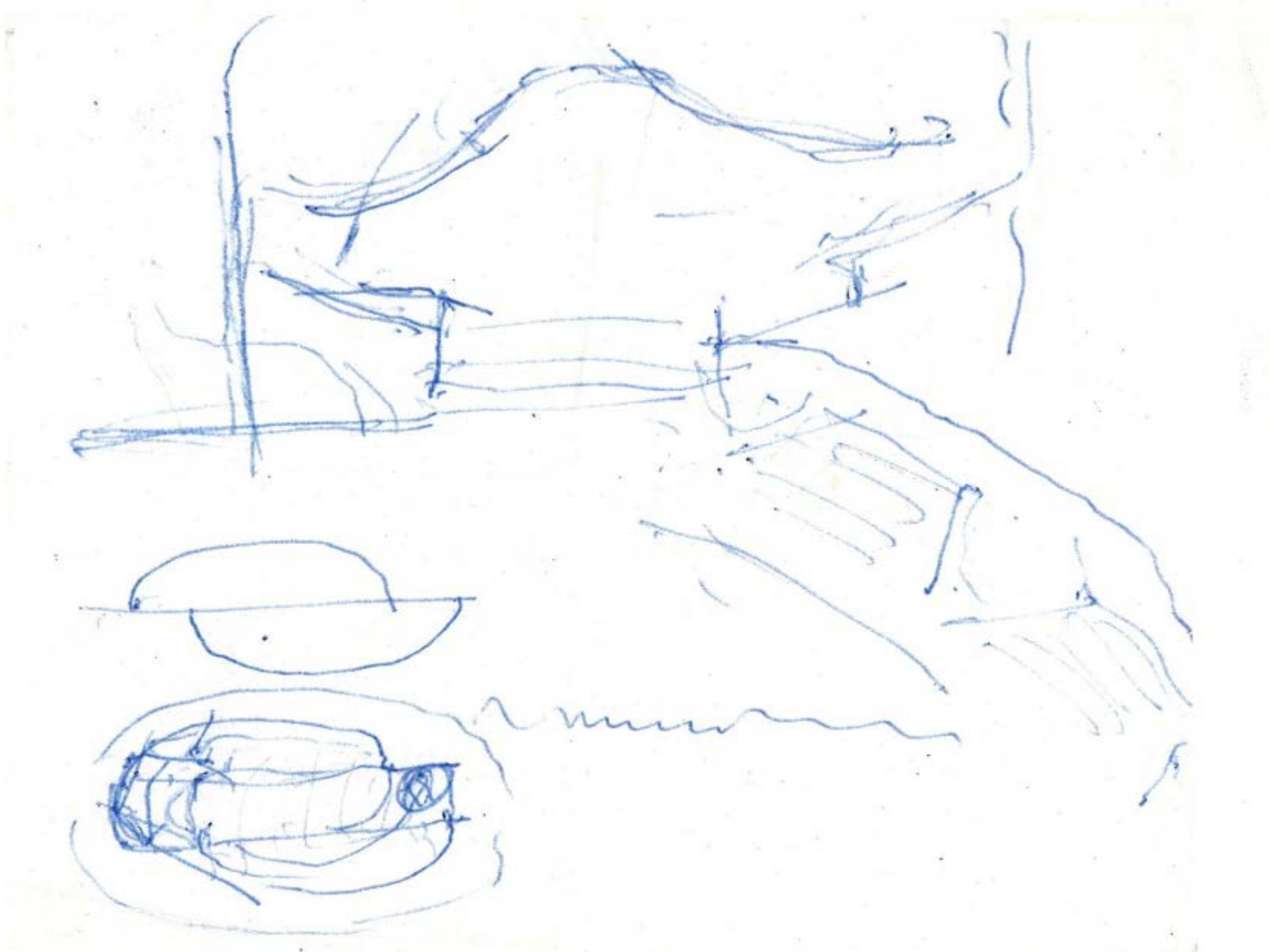


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# Conceptual Design Process

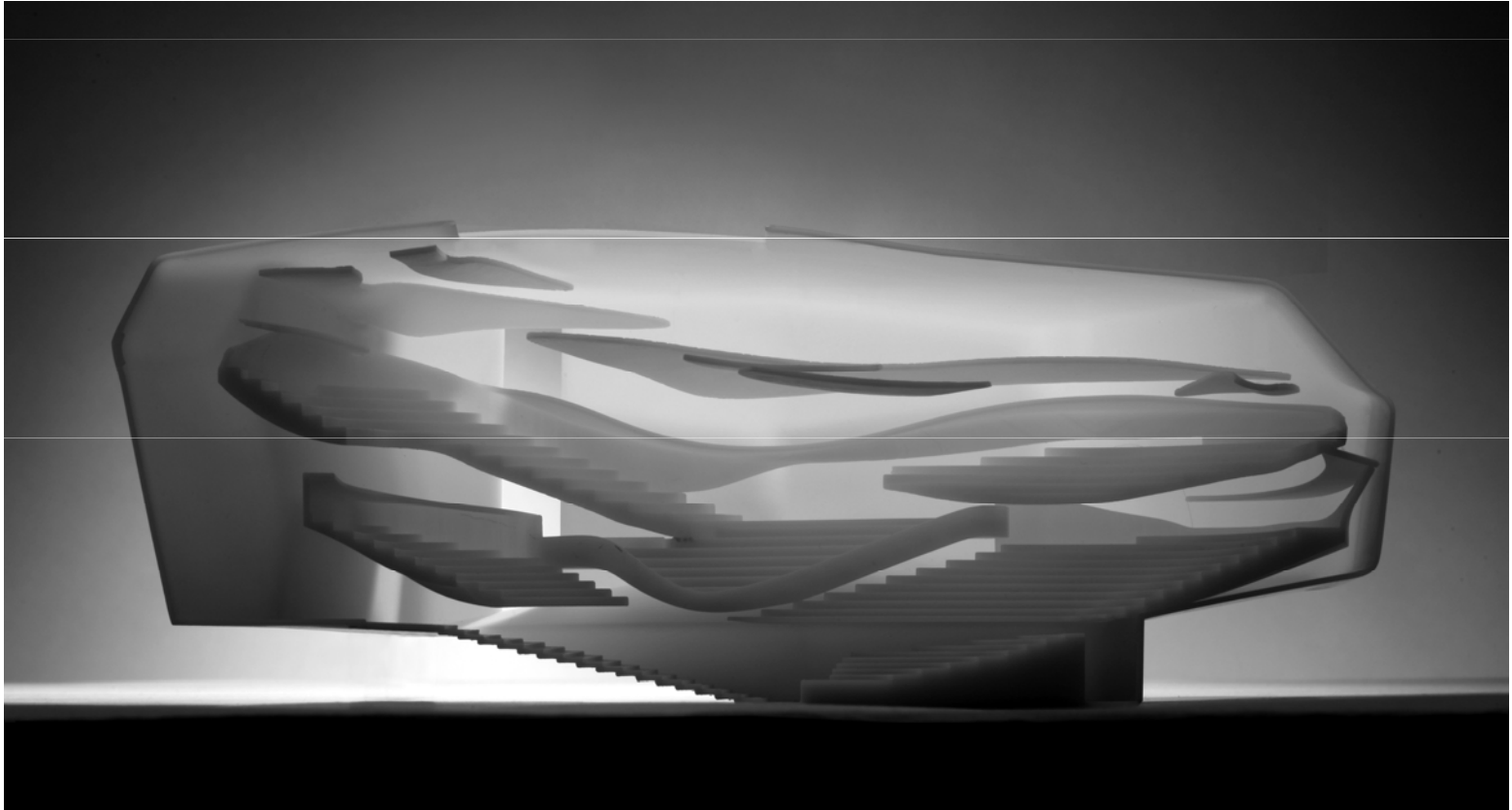






# Architectural Realisation

Two nested chambers







Outer space with its  
own architectural  
and acoustical  
presence

Inner space providing visual and acoustical intimacy between performer and audience



# Competition Submission

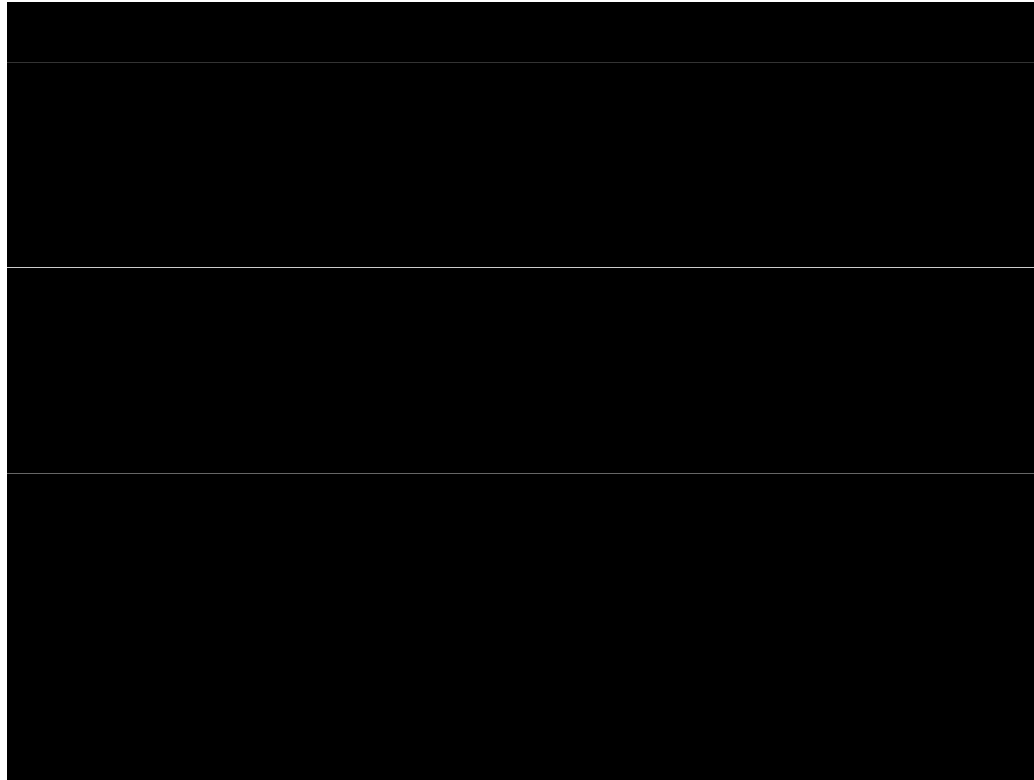
- 5 x A0 drawings
- 4 x A4 Text
- Exterior Model
- Interior Model
- 2 min video

# Competition Video



# Two months later

Easter 2007

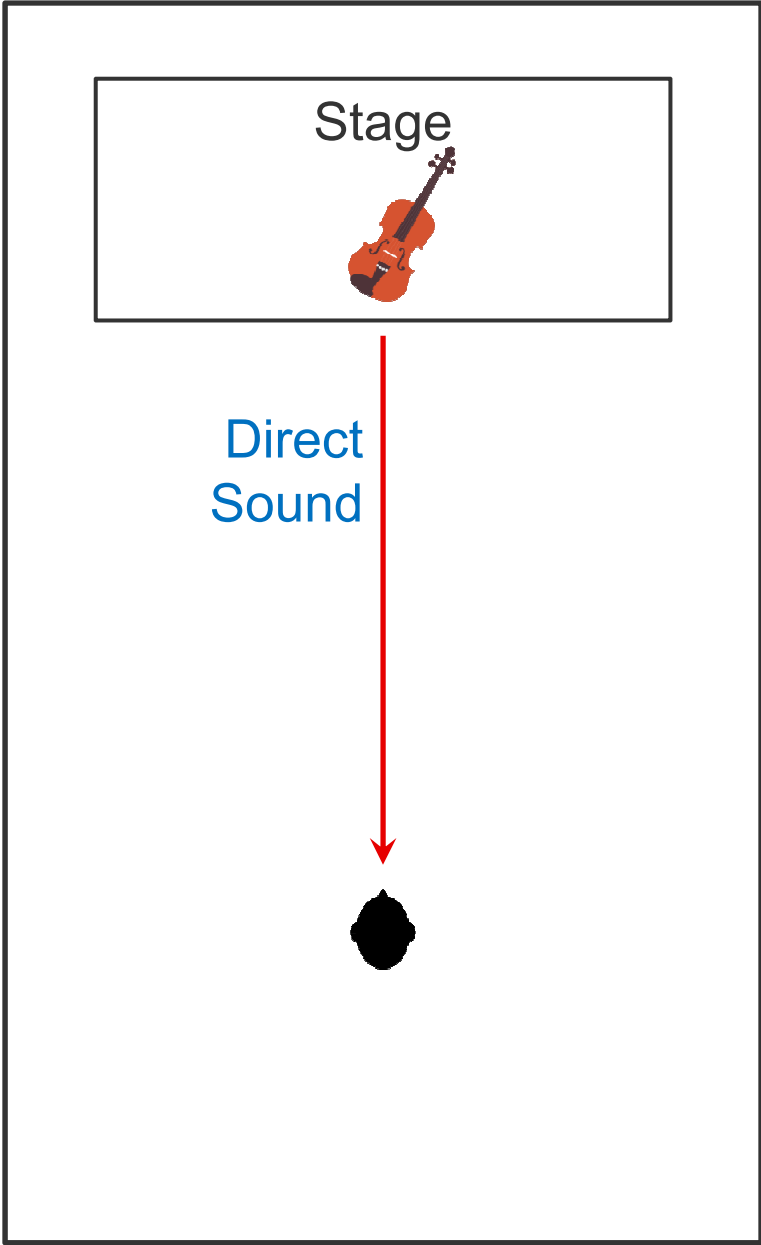


# Detailed Design

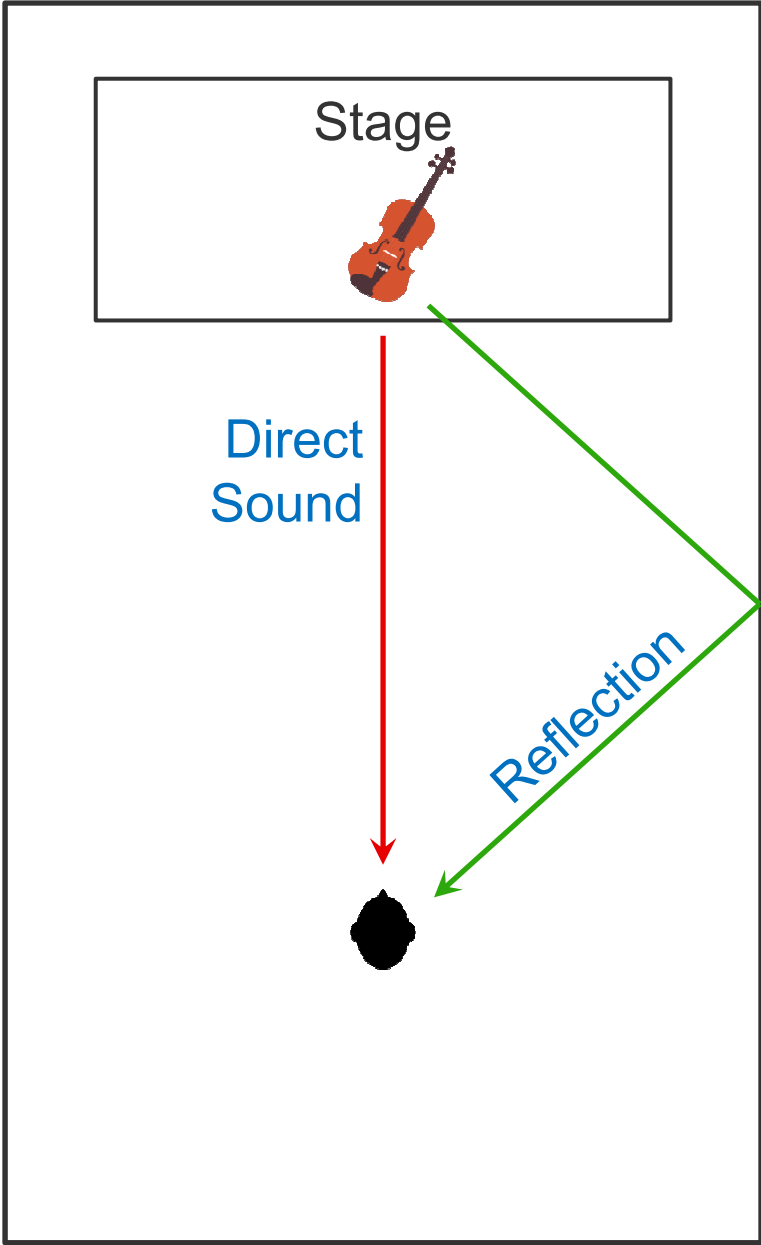
- Many aspects
- Surround Halls - Lateral Reflections

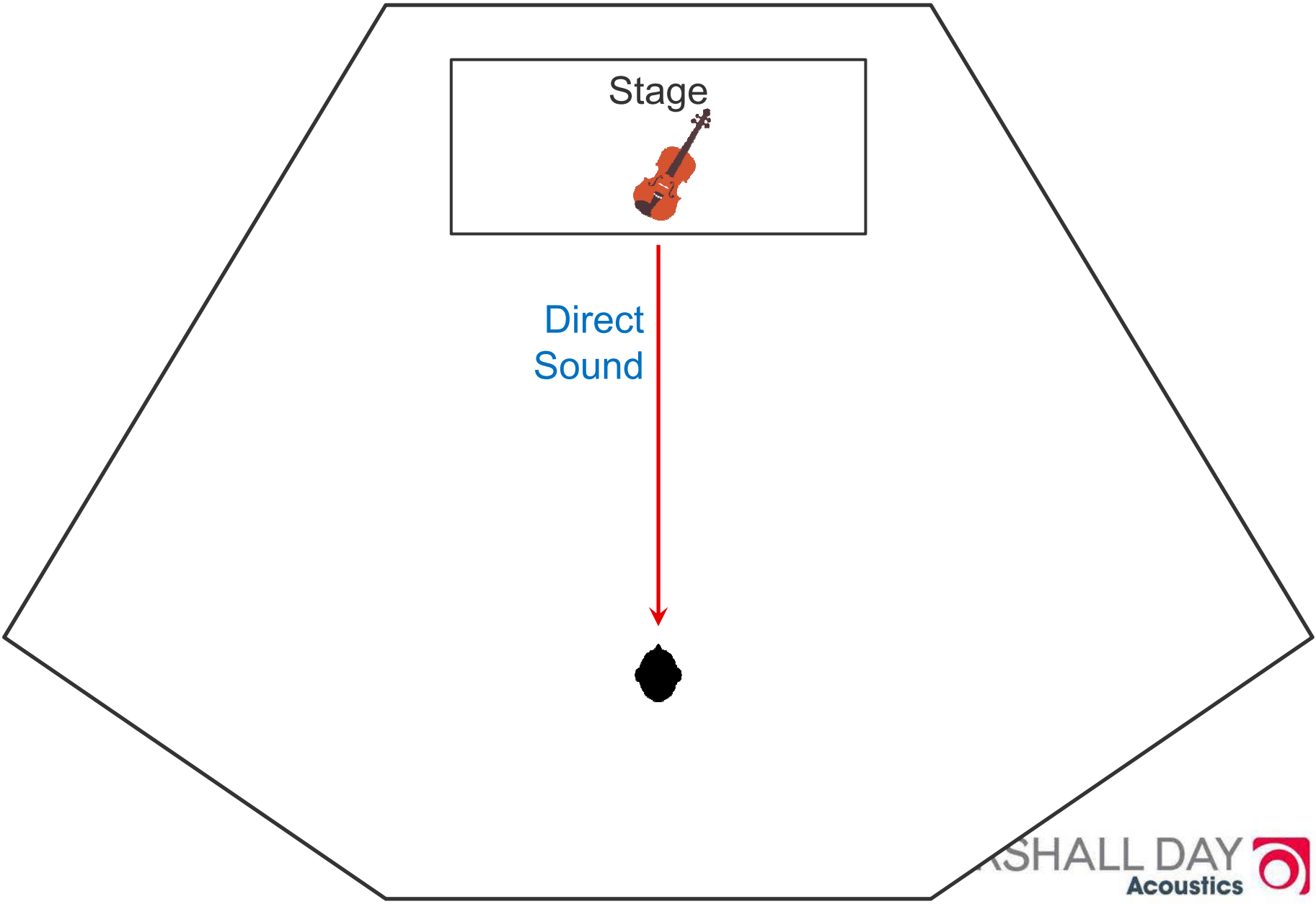
Stage









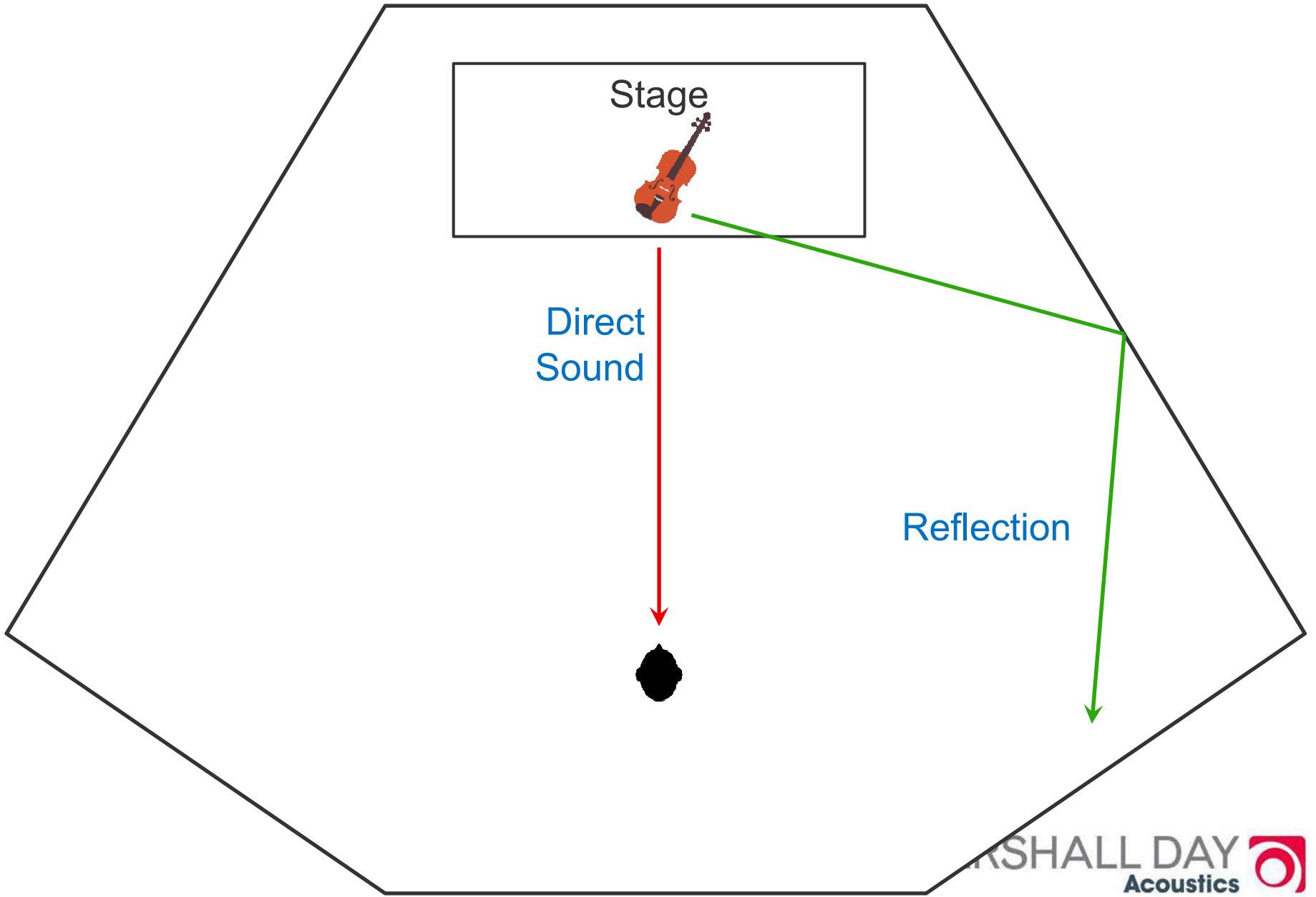


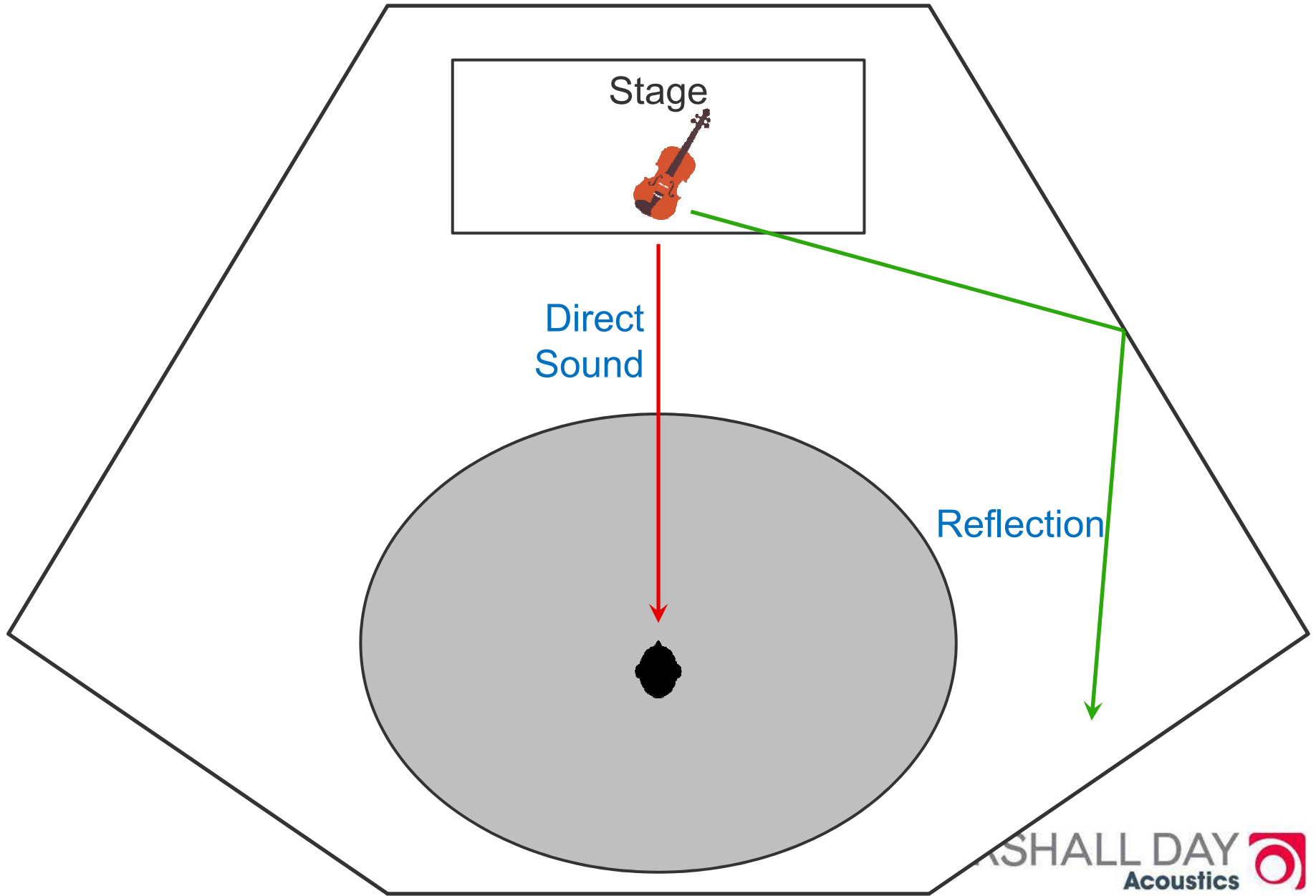
Stage



Direct  
Sound

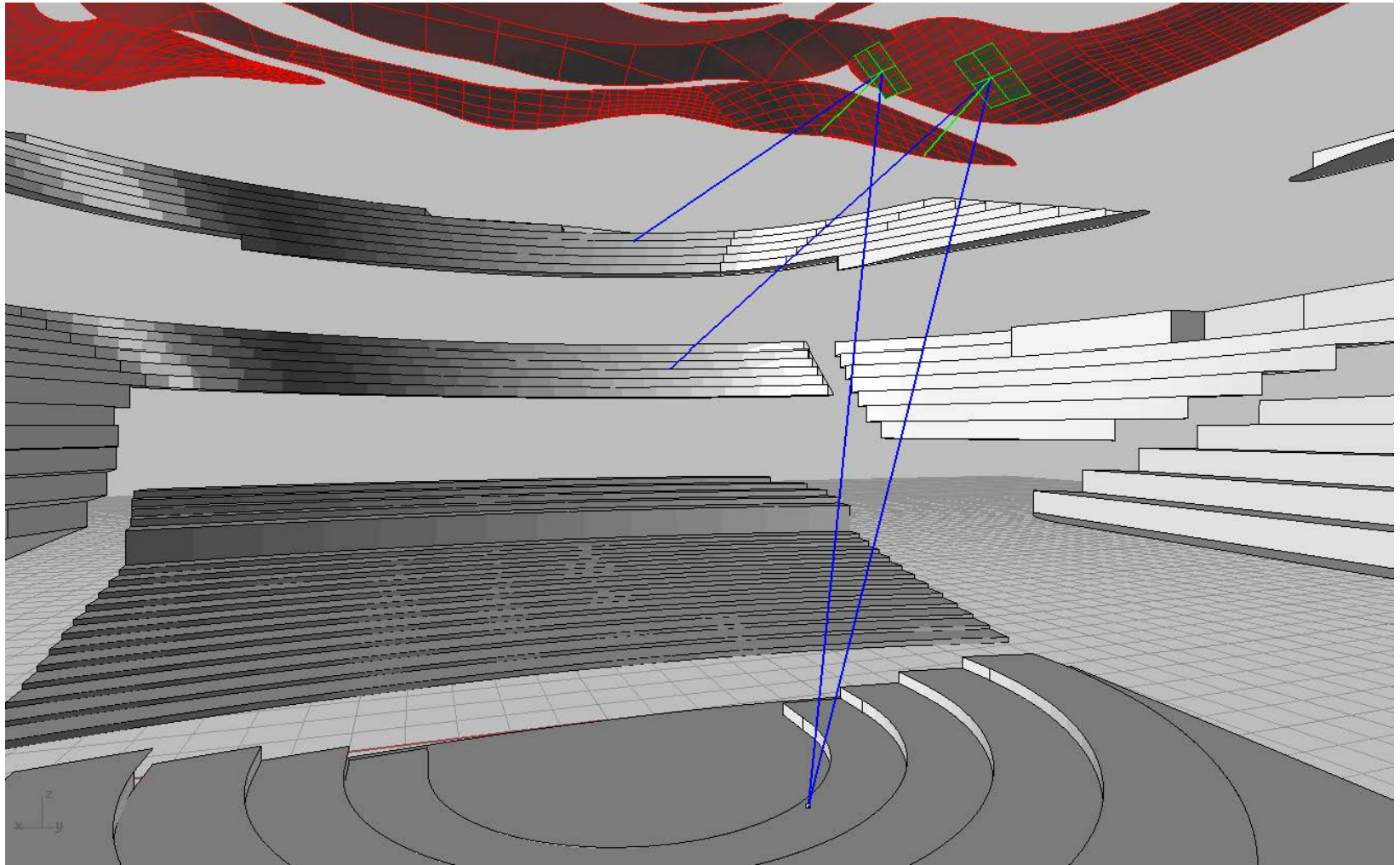


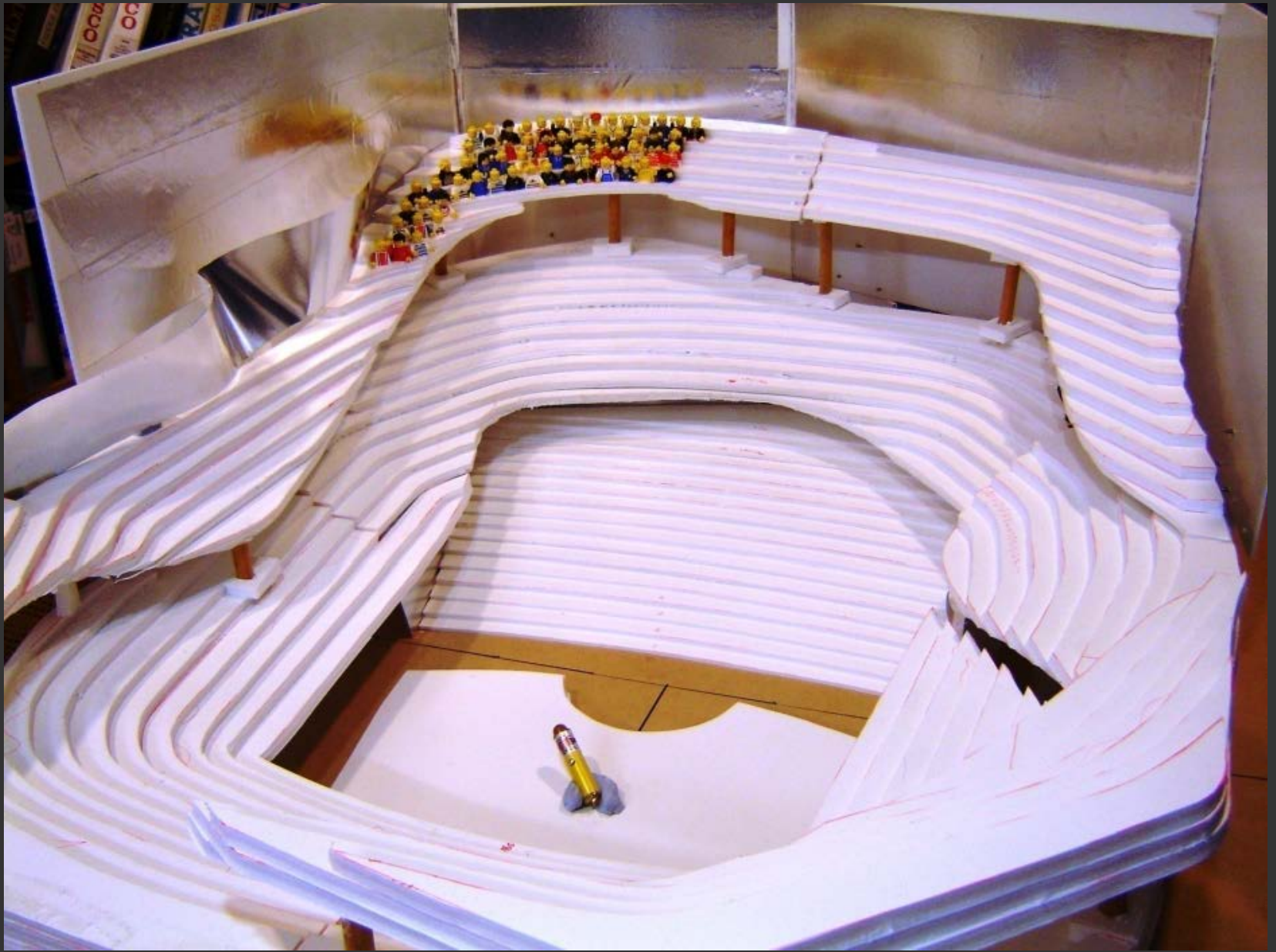


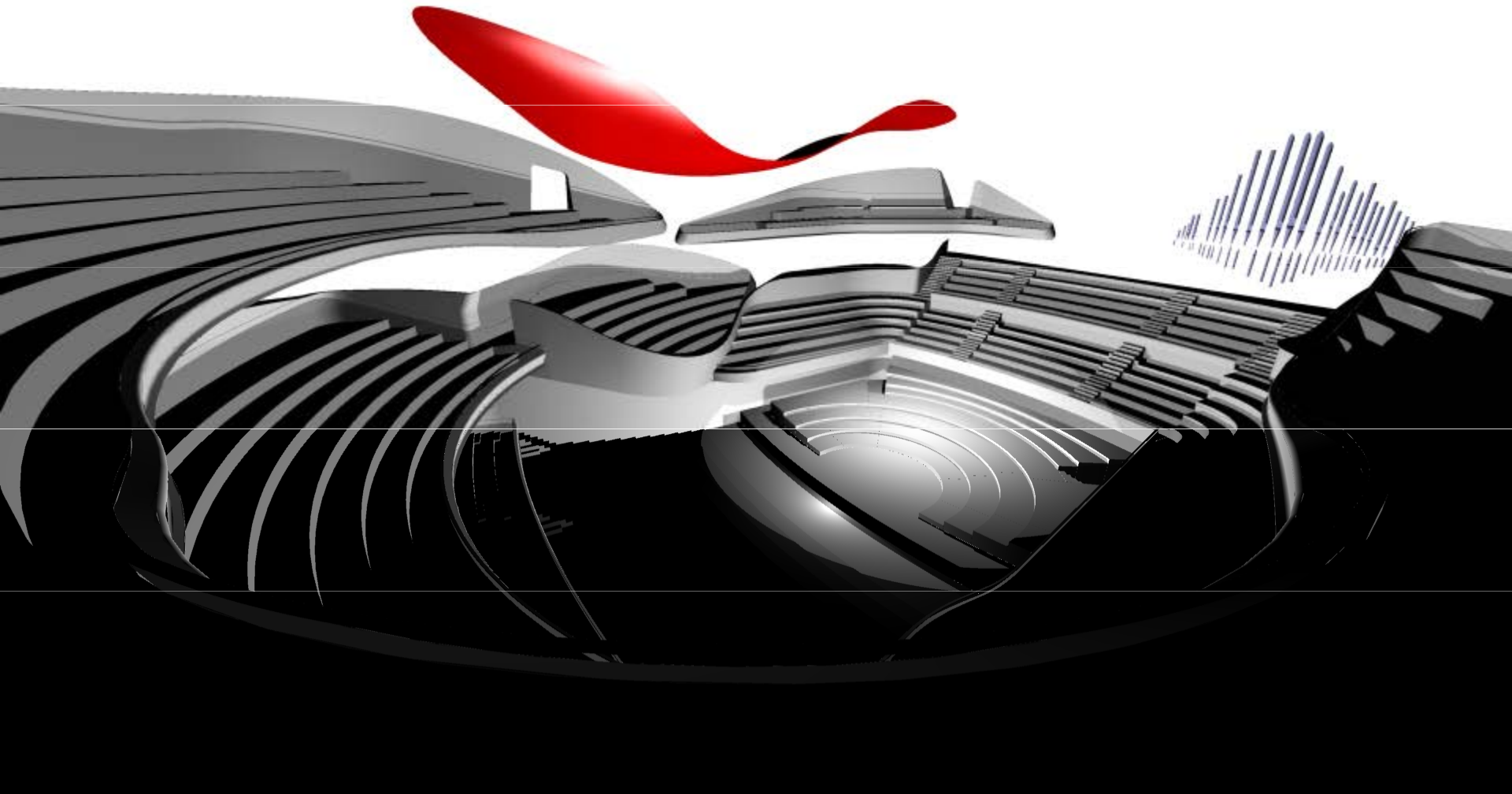




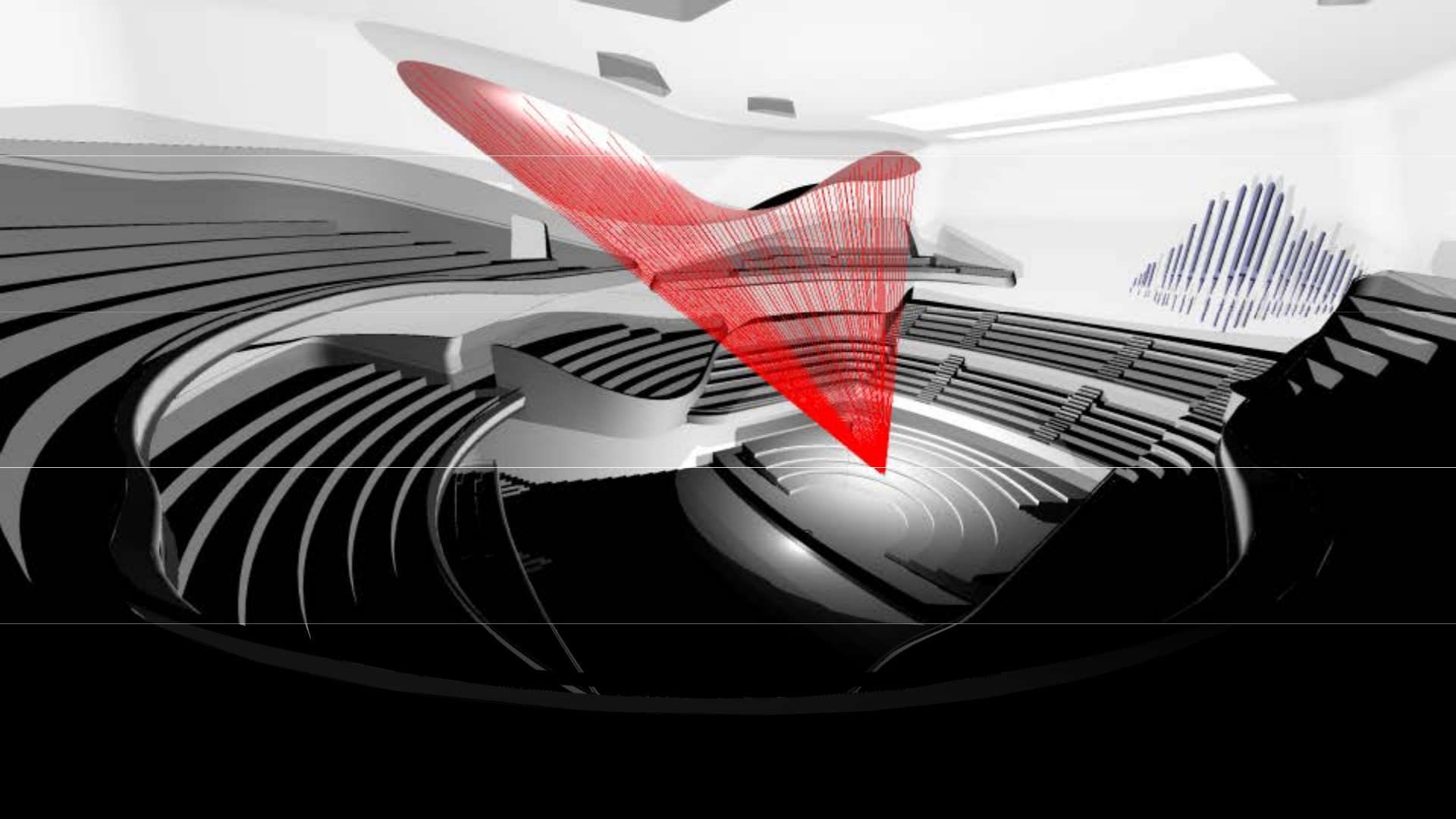
# Optimising Reflectors

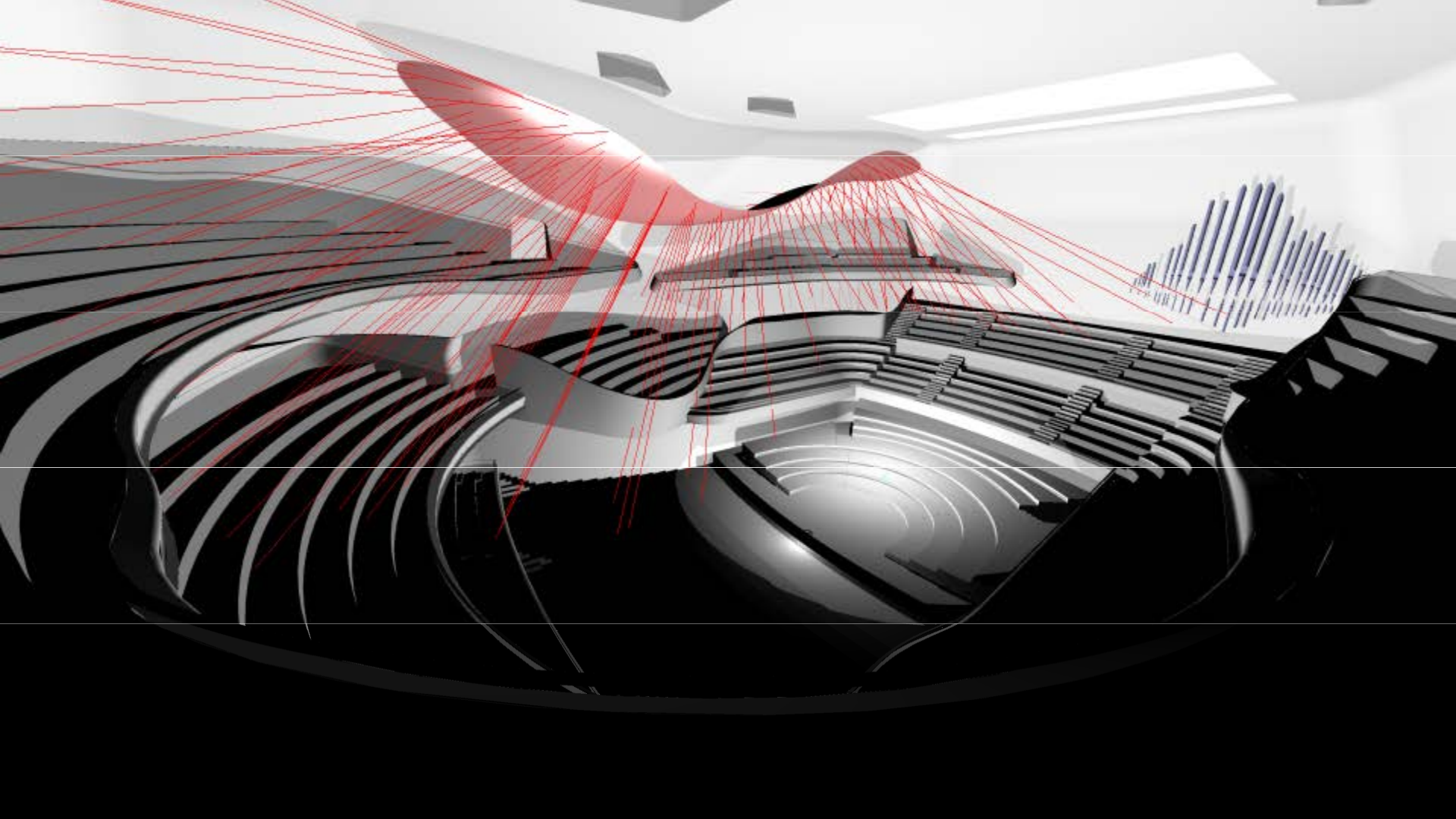


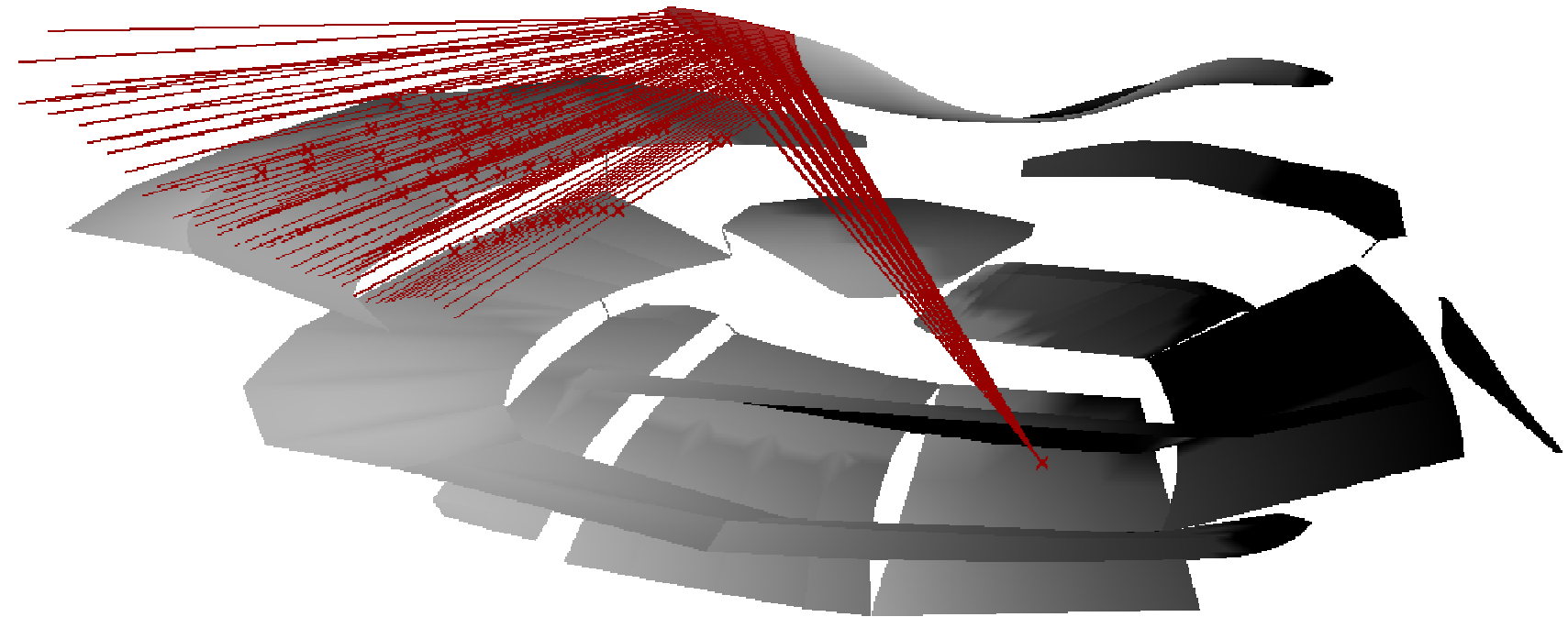


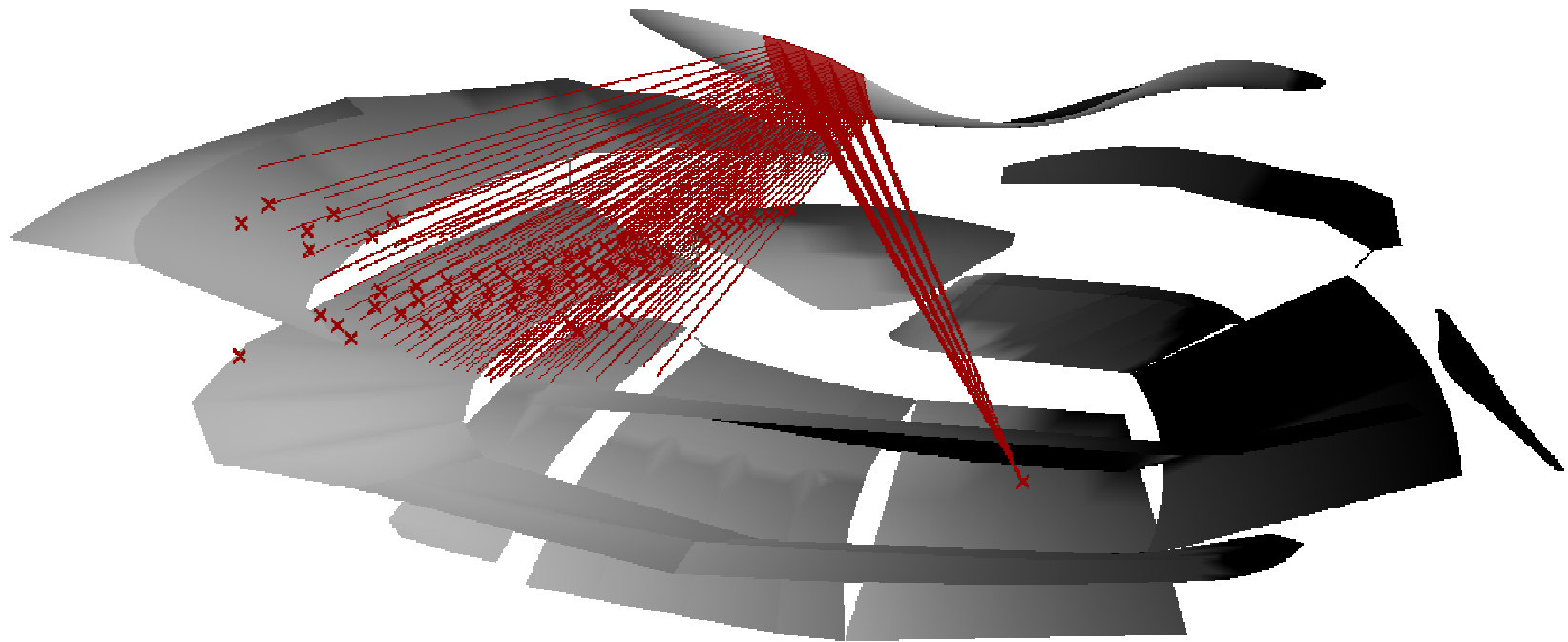


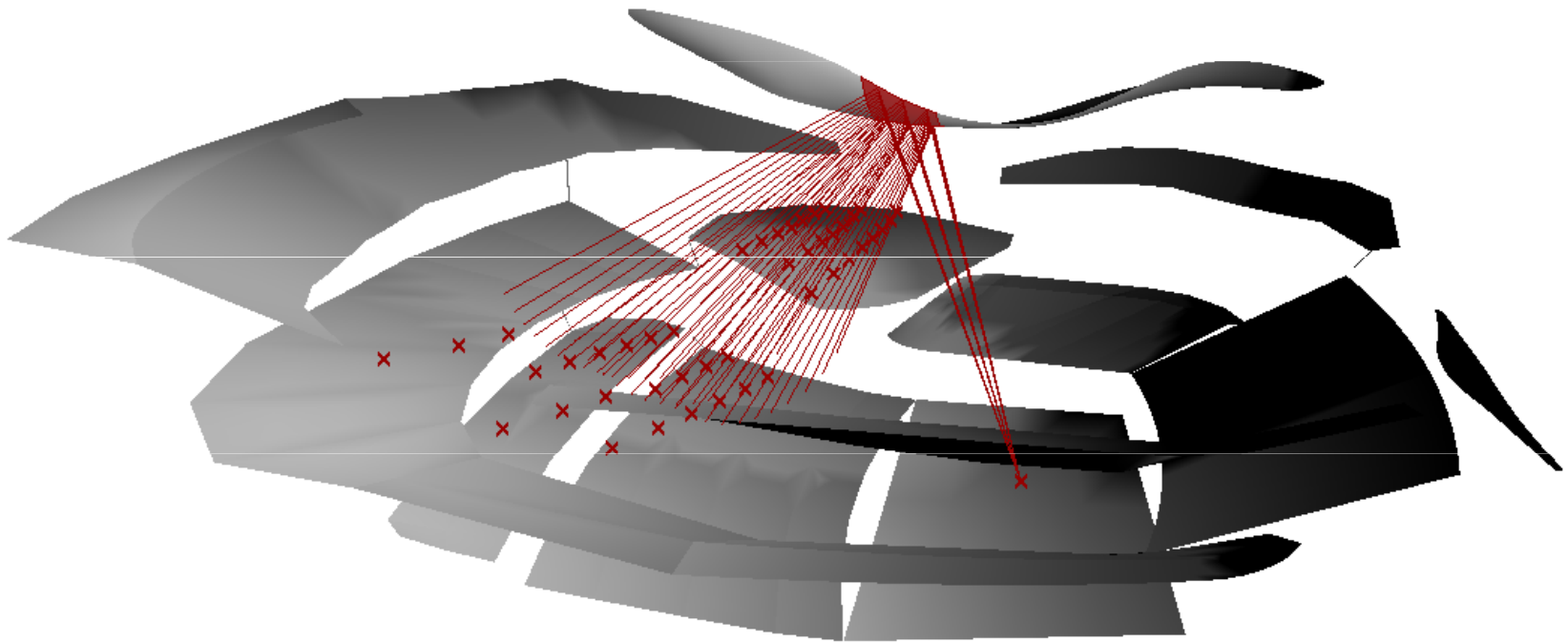


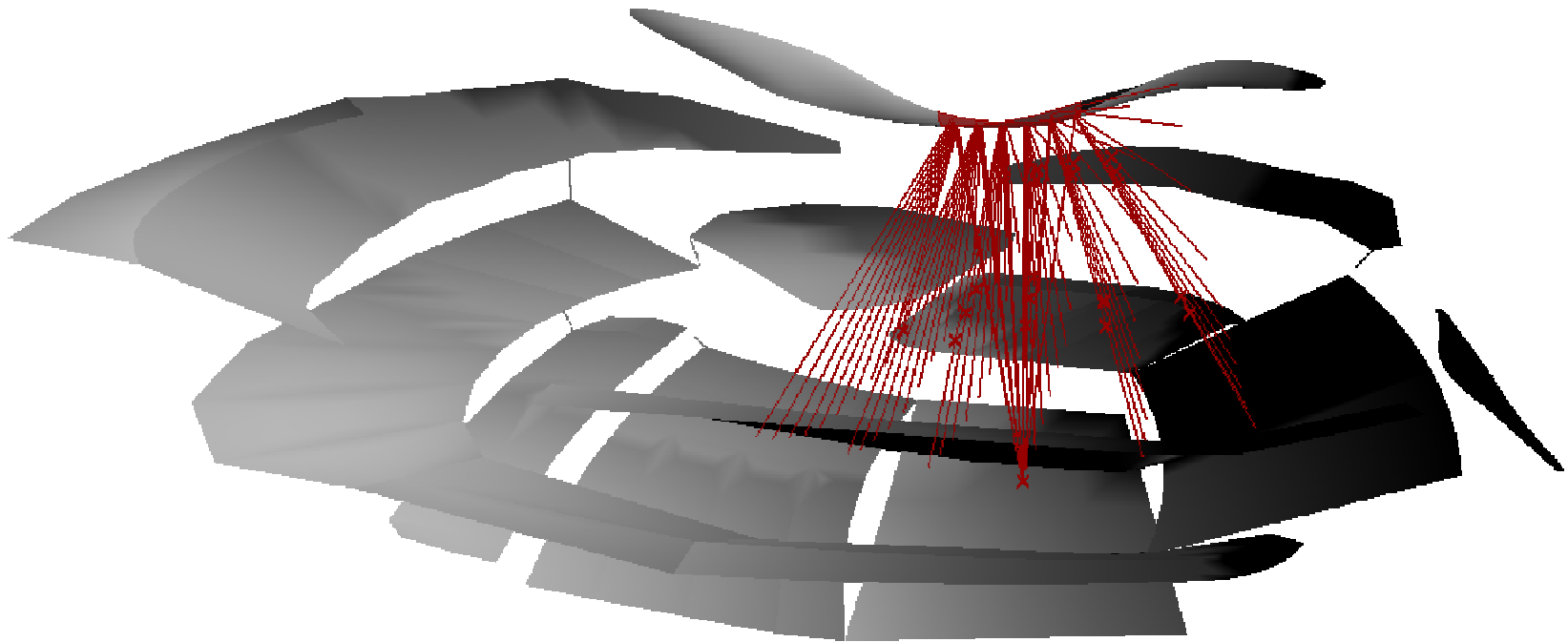


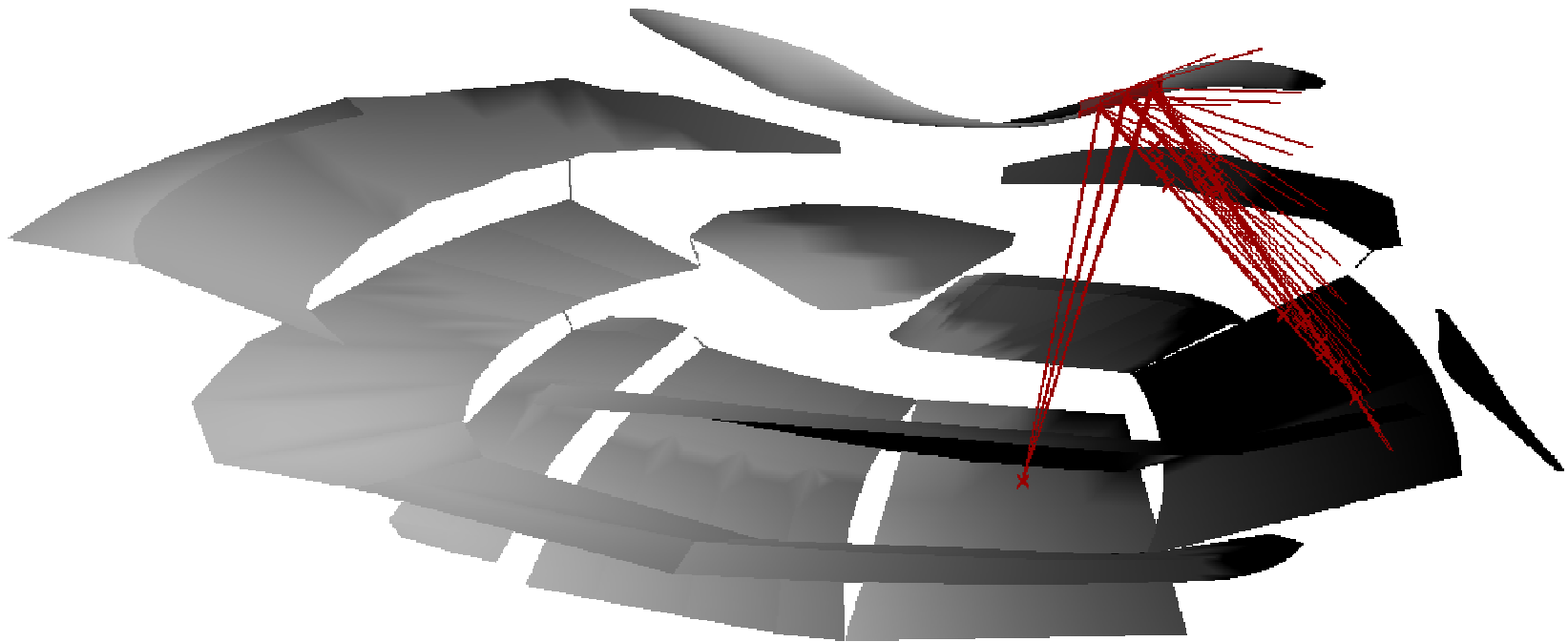


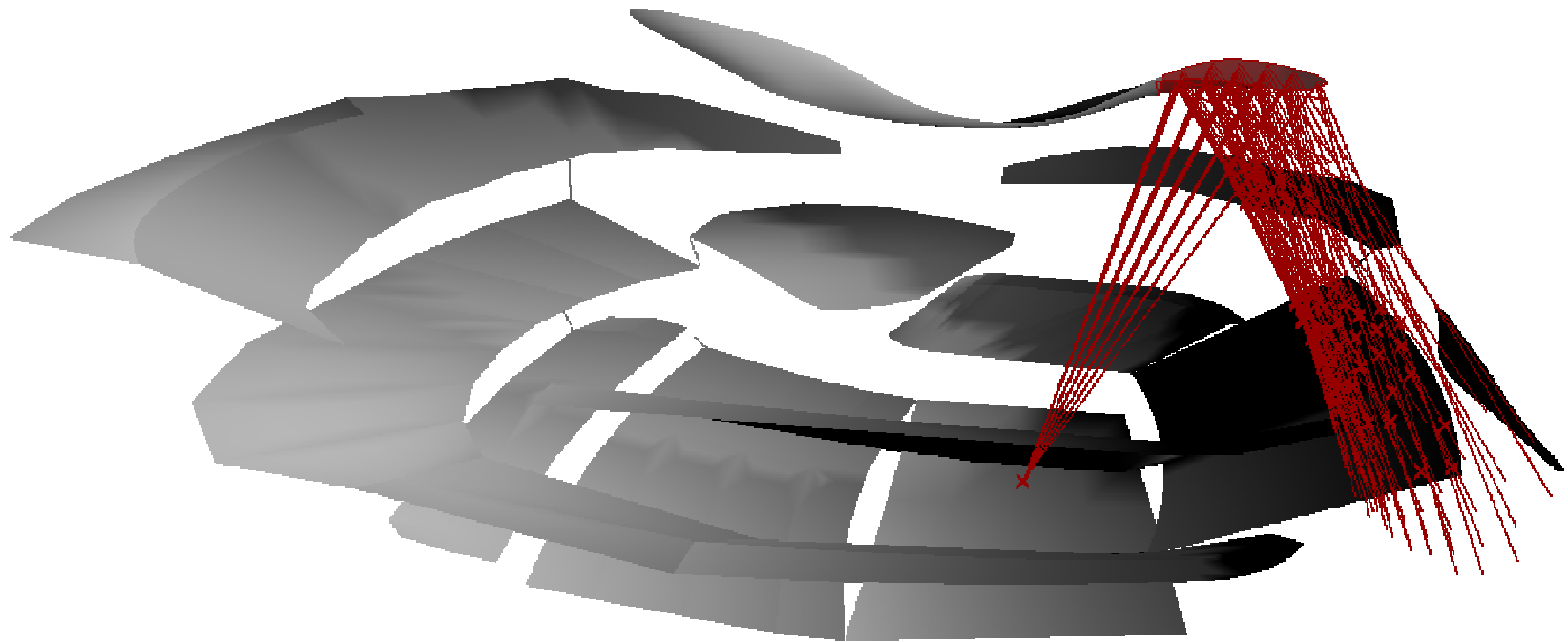














# Construction

- 2009 - Price 3 times Budget
- 2 year hybernation
- Negotiation
- 2011 - All go
- 2014 - Opening delayed twice
- 14 January 2015 – set in stone
- Colleague 12 Dec 2014

12 December 2014



14 January 2015



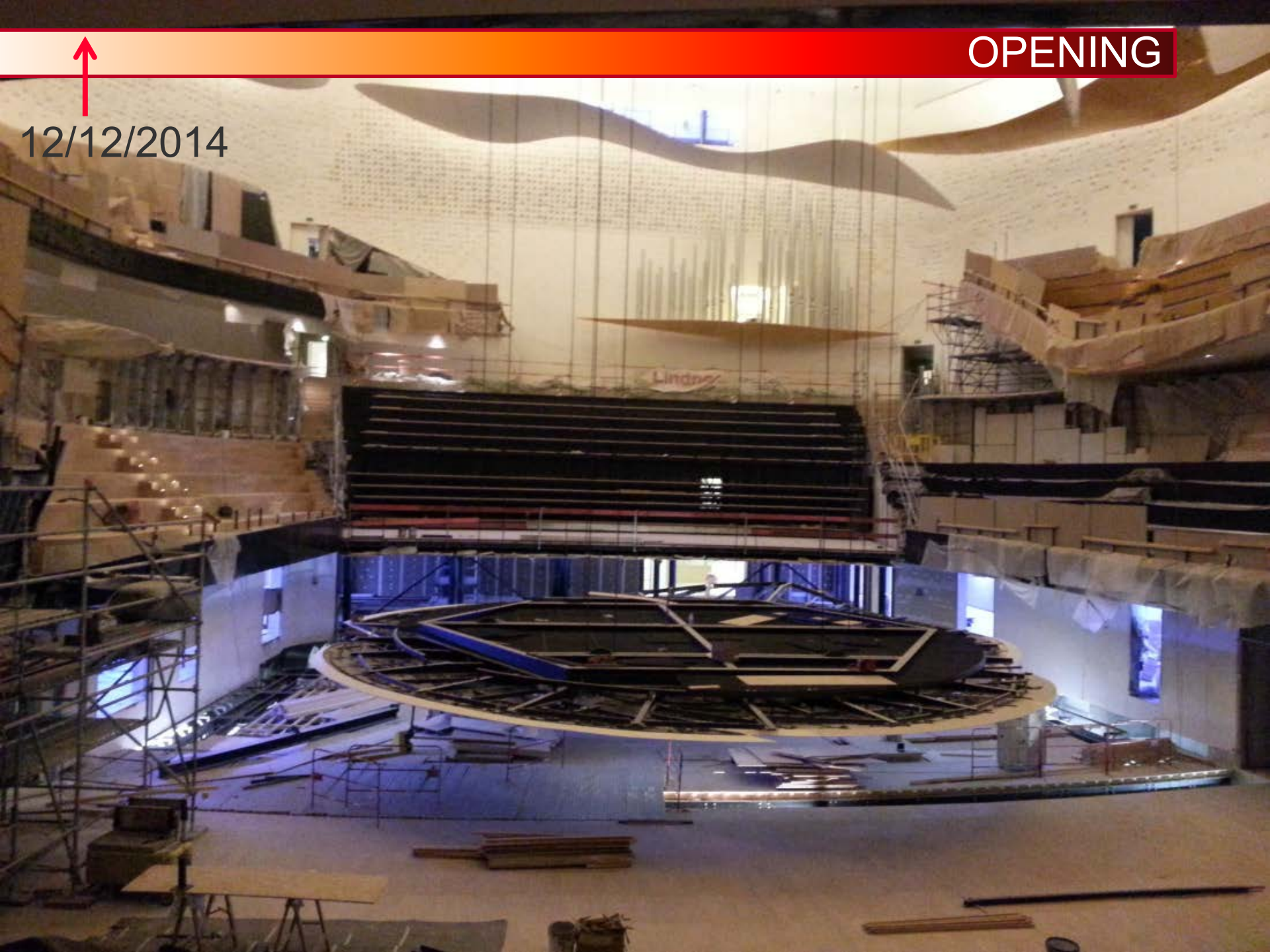
12/12/2014



OPENING



12/12/2014



04/01/2015



OPENING

04/01/2015



# Charlie Hebdo Tragedy - 7 Jan



# 4 Days to Opening







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# 3 Days to Opening March of Solidarity





# Boulevard Voltaire



# The Hard Hat Concert









# The Hard Hat Concert

- The Sound – Peter Exton
- Euphoria & Champagne
- The Bass player



# Opening Night

- Jean Nouvel Boycott
- Difficult decision
- “Commissioning includes listening”

# Opening Night



# TV Coverage







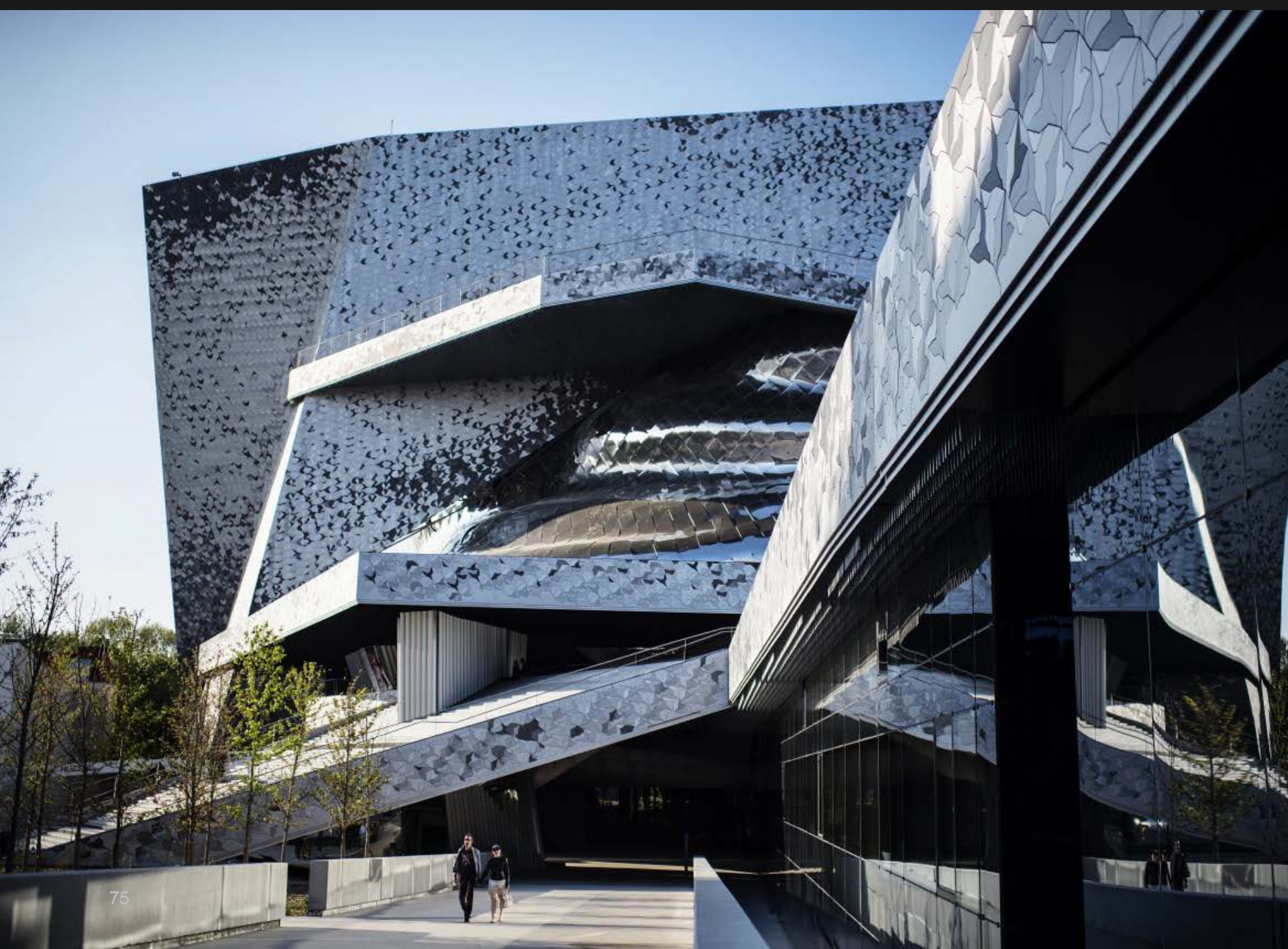


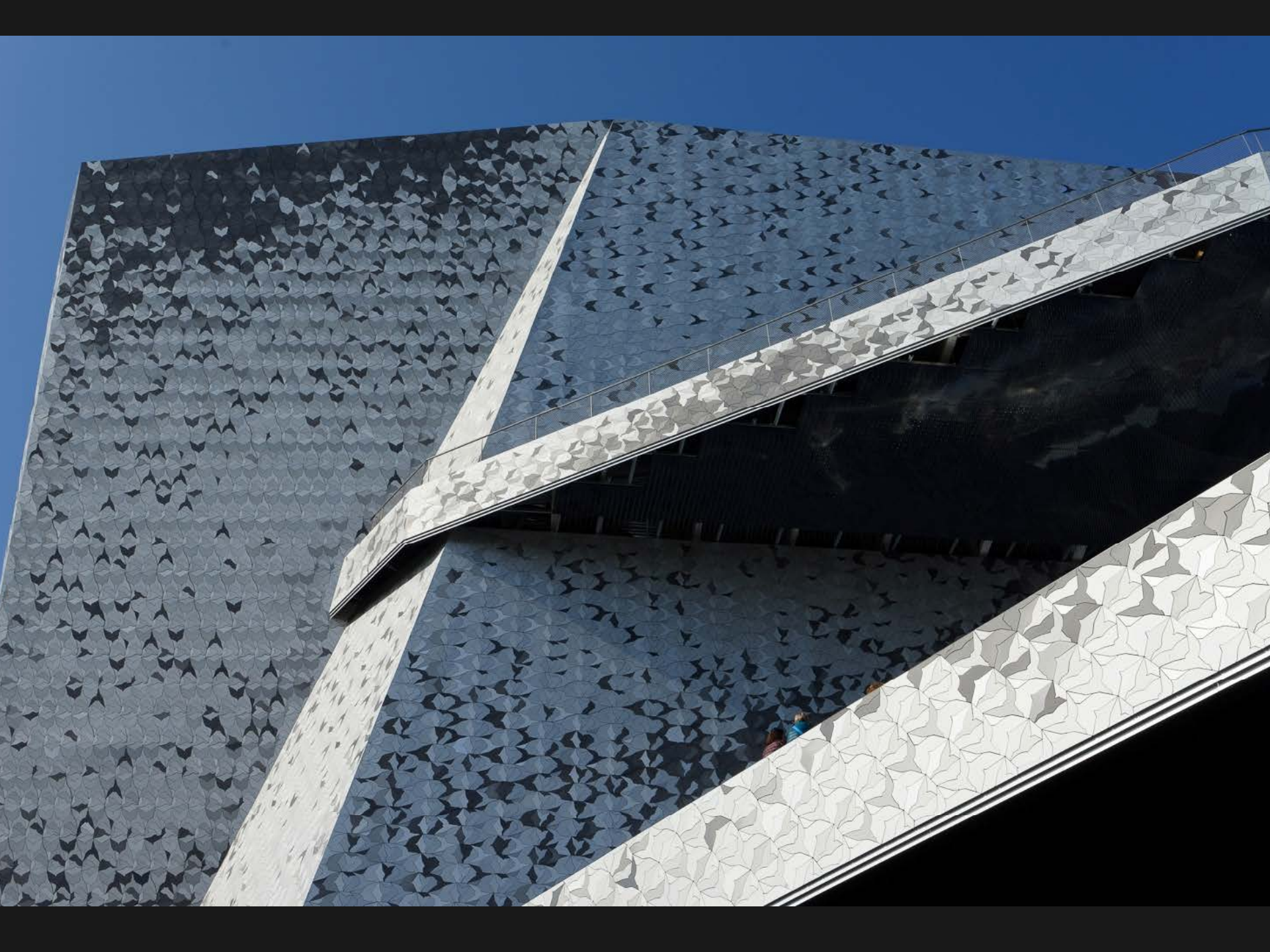


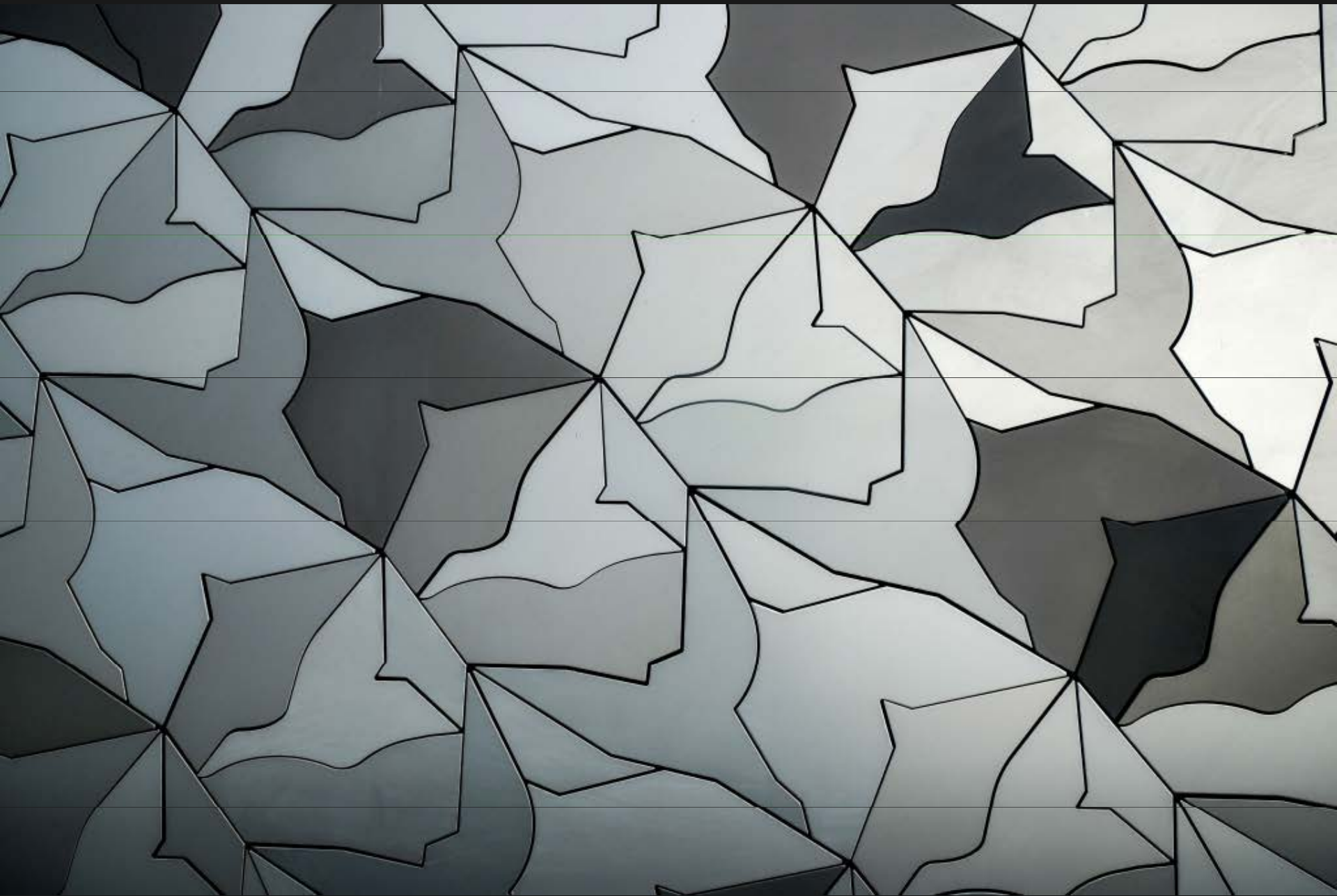
# The Outcome

- External Architecture
- Incomplete - controversial

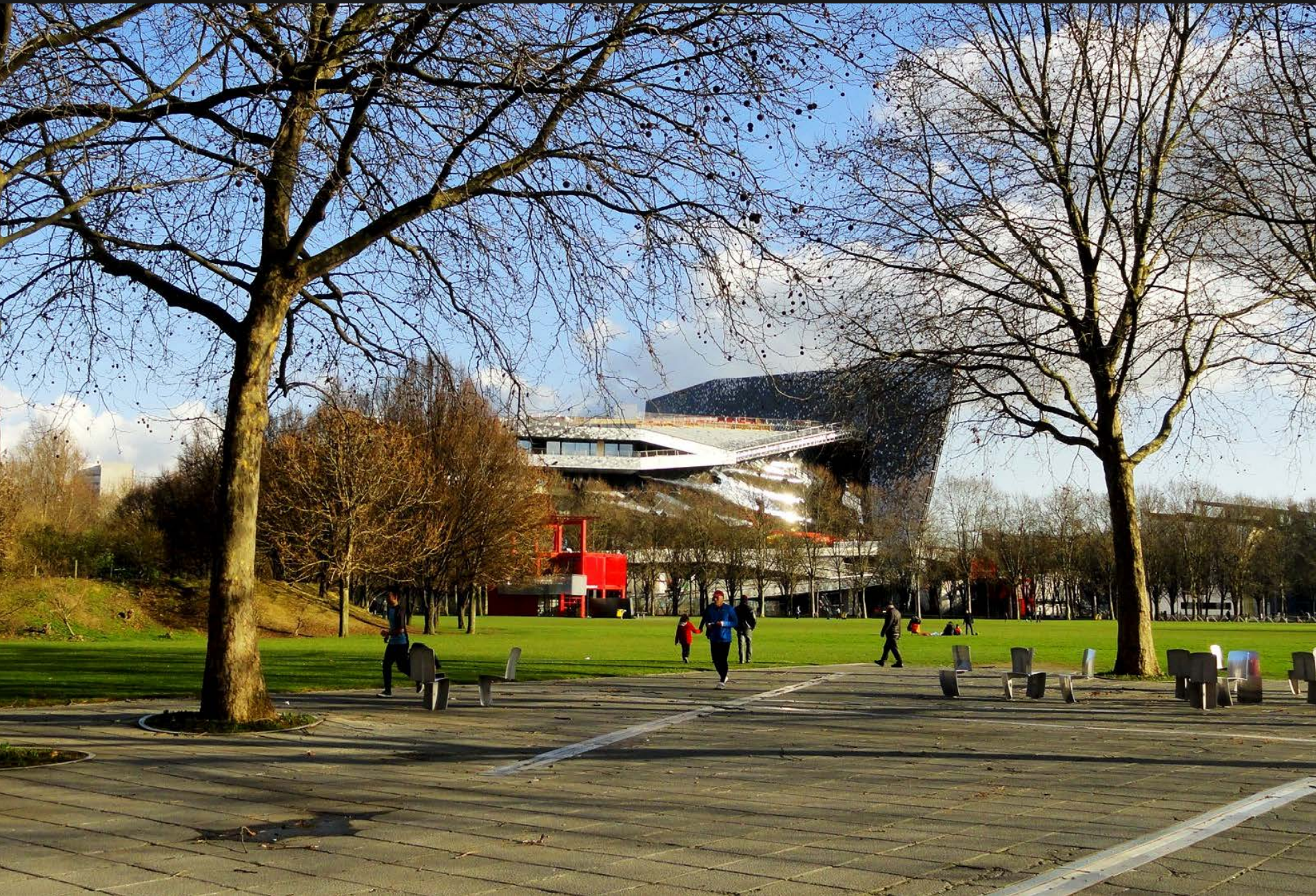












# The Outcome

- Internal Architecture – stunning











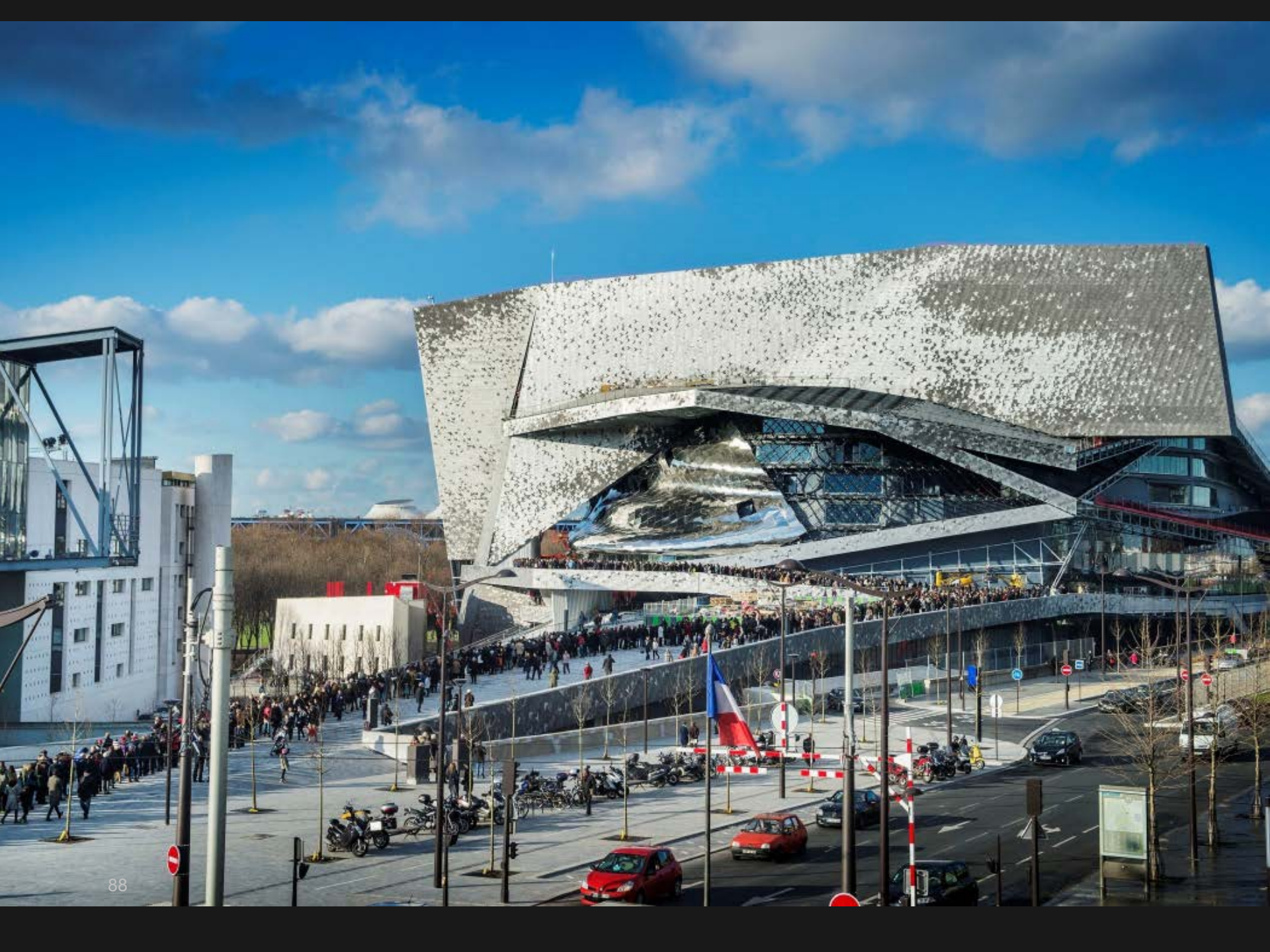
# The Outcome

- Adaptability – excellent



# The Outcome

- Music to the People
- Success
  - 270 concerts from January to June 2015
  - 312,000 tickets sold
  - €10 - €100 per ticket
- 60% new audience
- Sold out (November)
- Open Days





# The Outcome

- Acoustics – overwhelming reviews

# The New York Times

*“... from first impressions it seems **acoustically marvellous**”*

*“... the acoustics were enveloping in the best sense. You never felt swamped with orchestral bigness and brashness; **though reverberant, the sound had detail and clarity**”.*

**Anthony Tommasini**, The New York Times  
On the Philharmonie de Paris

*“Paris has what could be one of the **finest acoustics** for orchestral music anywhere”*

*“If the other 2,399 seats are as good as the one I was sitting in, I think that the Philharmonie could be one of the most dynamic and exciting places to hear orchestral music in the world”*

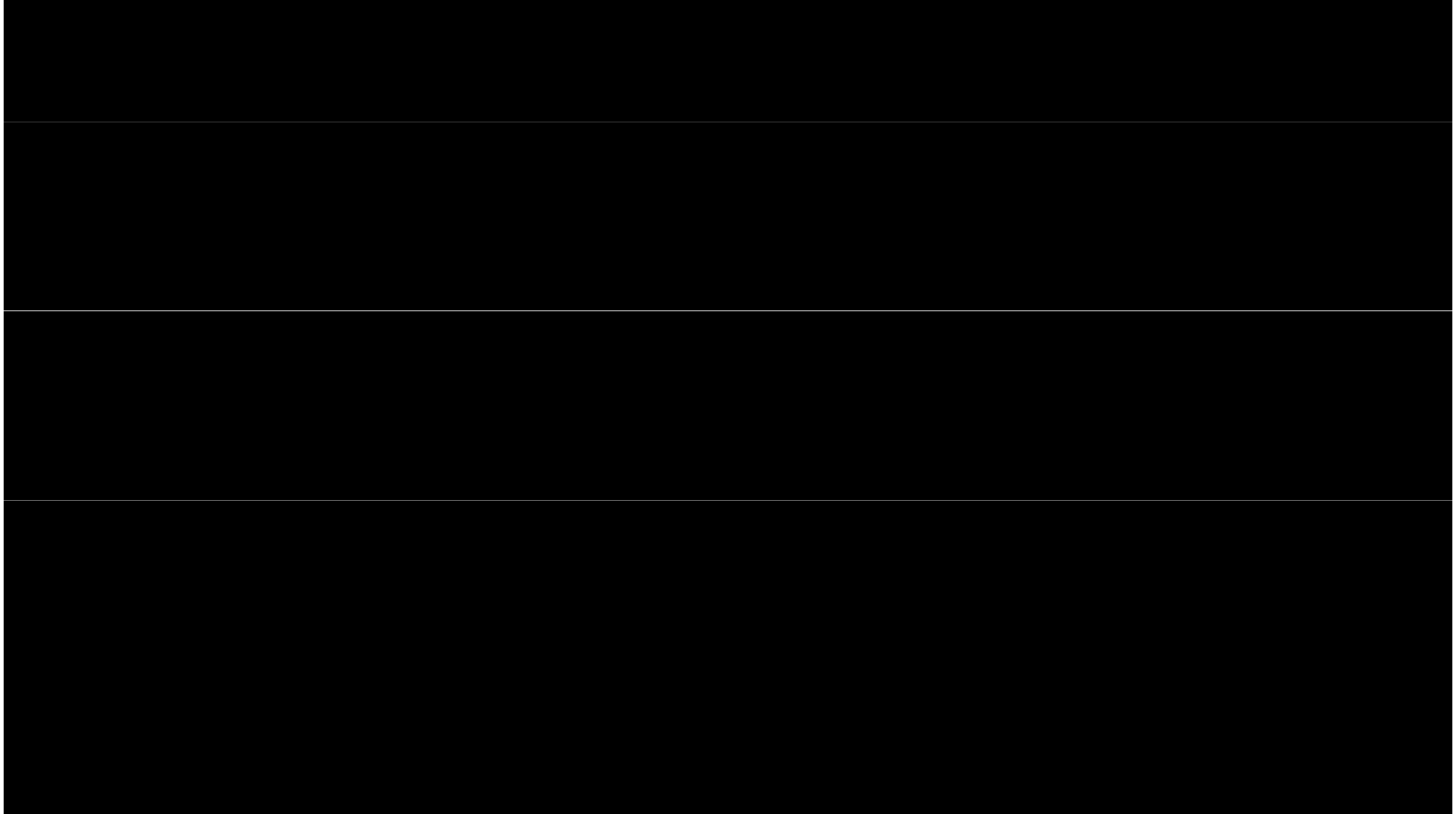
*“In short: pretty stunning. I can’t remember a new hall sounding this good or this characterful ... There is a combination of dazzling clarity and generous depth in the **sound that makes the whole range of orchestral possibility feel like a vivid physical presence**”*

**Tom Service**, The Guardian  
On the Philharmonie de Paris

# Conductor

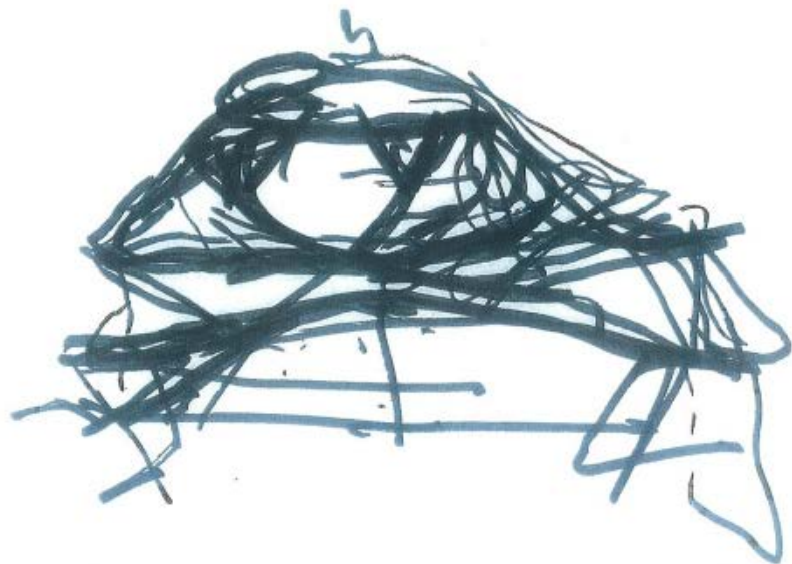


# Berlin Philharmonic



# The Outcome

- True to the Original Concept
- True to the Competition Design









PHILHARMONIE  
DE PARIS

2015 Season: Book now!



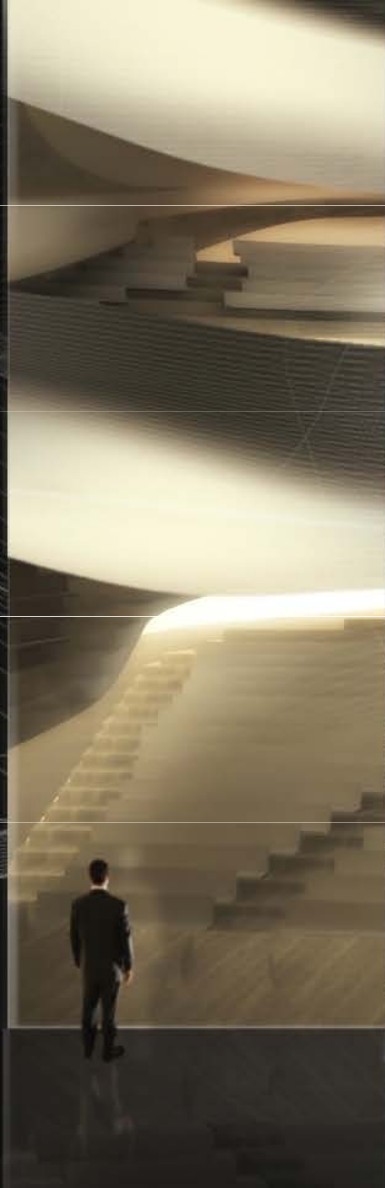
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# Conclusion

- Magnificent Public Building
- Brought Music to the People
- No rebuild required

# Finale



# The Marshall Day Octave Band



# The ~~End~~ Beginning

# Violinist – Renaud Capuçon

- The great violinist Renaud Capuçon played the first notes in the hall of the Philharmonie de Paris;
- *"I had the opportunity and honor, as a violin soloist, **playing the first musical notes issued in this magnificent hall** of the Philharmonie de Paris, at rehearsal. **This will remain one of the highlights of my life as a musician.** I was almost afraid, but I was immediately won over: the acoustics are bright, very natural; about the sound texture, it is clear and round. I had a feeling of comfort. I felt surrounded by music, it is the nature of the scenes set in the heart of the room. When it was the turn of the orchestra to play, I found that all the instruments were remarkably enhanced. The proximity of sensation is extraordinary. Everything is done so that the artist feels good. Certainly there will be some small adjustments to be made, but for now, this sublime room already sounds great. This is more than ready. As you see, I'm excited!"*

# Pianist – Helene Grimaud

- *"It's so nice to be in a space where you can have a physical experience of the sound - where the sound goes through you and envelops you at the same time. Sound is a vehicle for emotion. So, the more present it is, the more you can receive it physically - which will enhance the experience. That makes all the difference."*



# THE TIMES

*“... the new Philharmonie looks and sounds like something London’s musicians can only dream about: a world-class concert hall.”*

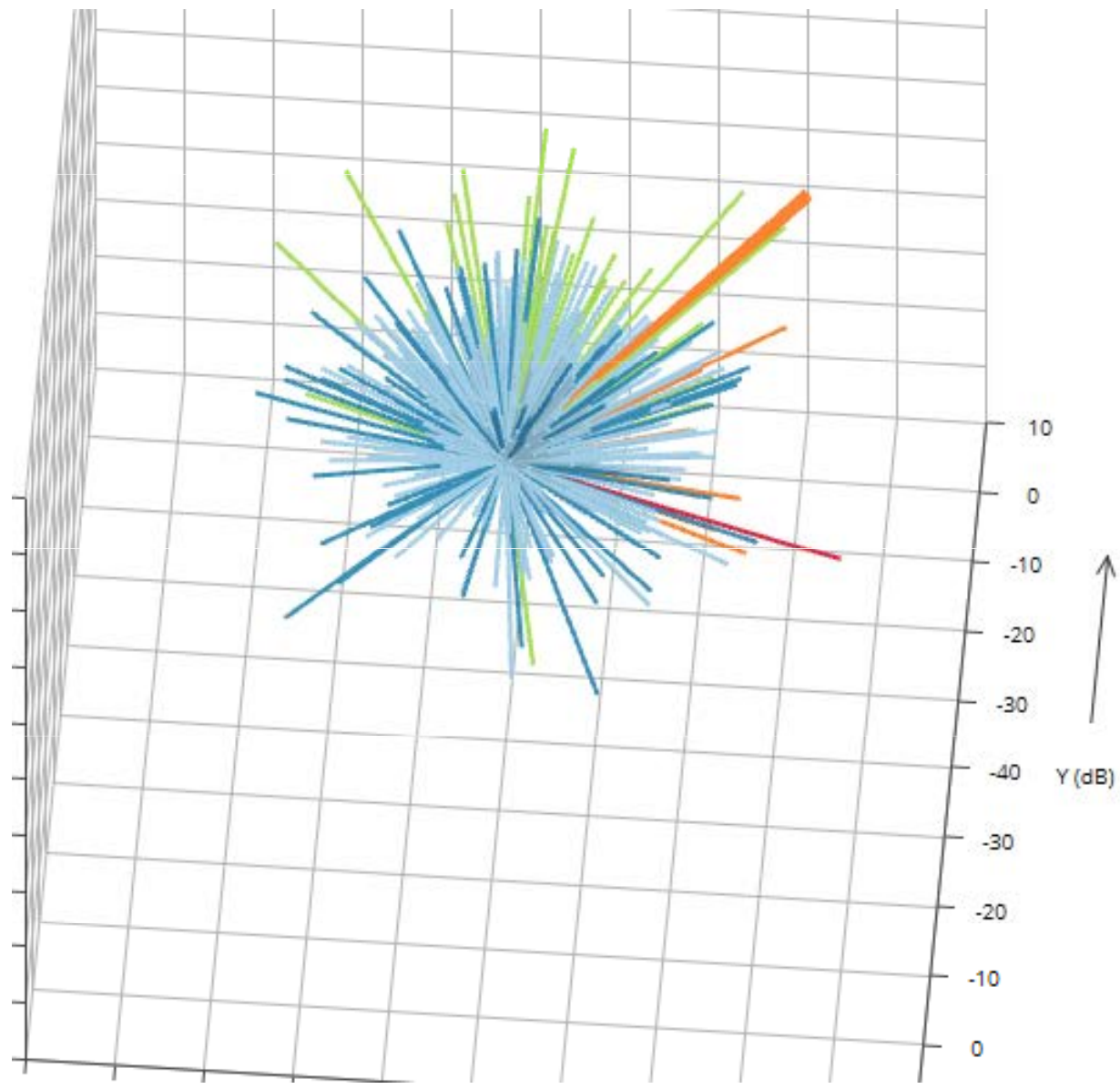
**Richard Morrison**, The Times  
On the Philharmonie de Paris

# Iris Measurements

- We need 6 hours clear
- Construction 24 hrs each day
- Music Rehearsal/Performance
- Sunday night – 11pm to 5am
- IRis
- 50 measurements in 6 hours
- BRILLIANT

# Iris





Selected Vector  
Magnitude = 5.2 dB  
Azimuth = 35.8°  
Elevation = 28.9°  
Time = 18 ms