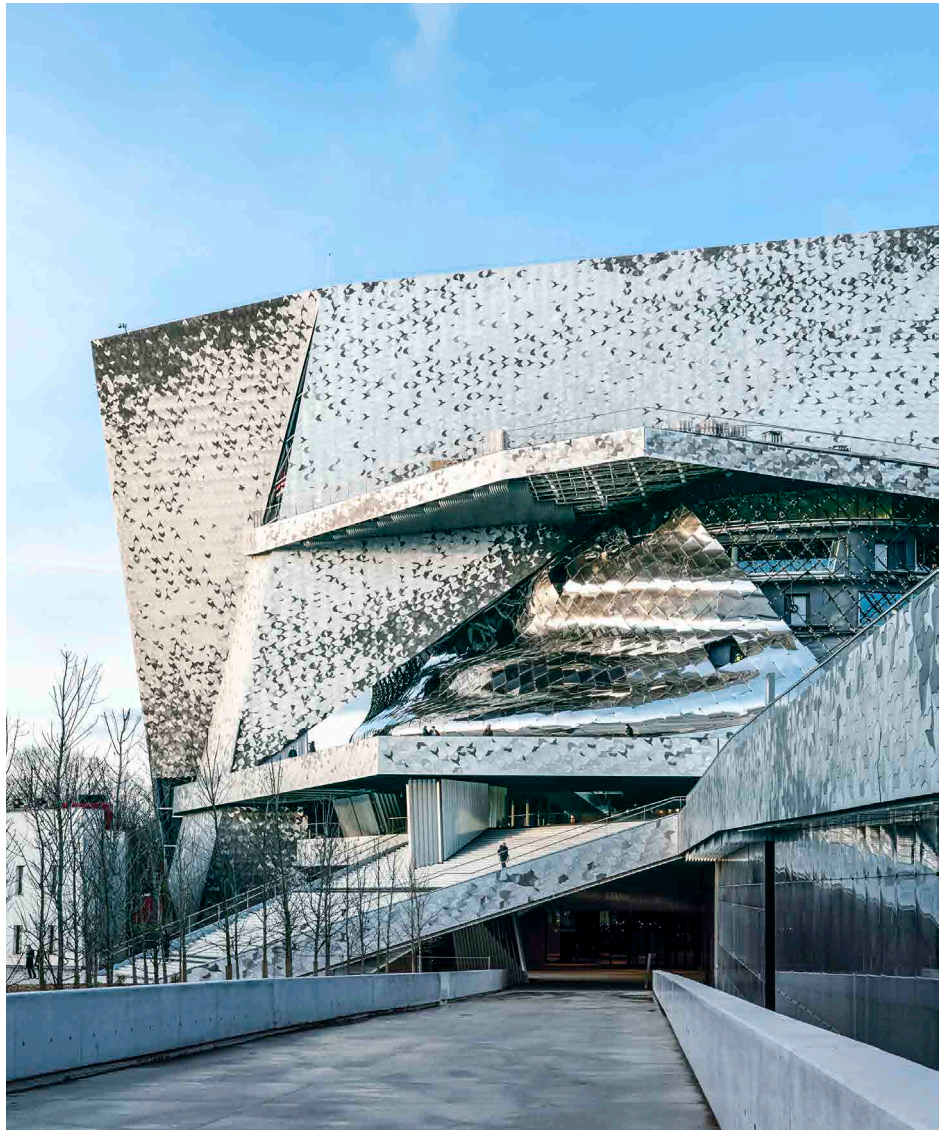# Philharmonie de Paris

Paris, France

The Philharmonie de Paris, an audacious building

Located in a working-class district, outside the centre of Paris, in the middle of the Parc de La Villette, the Philharmonie rises ready to be a new centre of pilgrimage for music lovers, local residents and even tourists. Jean Nouvel has created a building that is audacious both inside and out. Covered with 340,000 bird-shaped aluminium sheets in various colours, the building is a type of silver mountain that reflects the green of the park, embeds itself within it and invites passers-by to wander around it.

Technical details:

Name: Philharmonie de Paris

Location: Paris, France

Year of development: 2015

Architecture: Ateliers Jean Nouvel

Venue: Performing Arts Centre and Multipurpose Space

Acoustics: Harold Marshall (Marshall Day Acoustics) – Toyota - Eckhard Kahle

Client: Philharmonie de Paris

Capacity: 2,400 seats

Product: Custom Philharmonie, 5067 Minispace and 400 Oxymore

The Grande Salle, which was not designed following either the "vignoble" or "boîte à chaussures" shapes which were traditional until now, premiers a new, enveloping and adjustable model. It was designed simulating the warm colours and organic forms of a forest. Nouvel chose a unique solution to offer an allenveloping experience by placing the audience in balconies hanging at various heights. In this way, they are suspended, immersed in the hall and this gives the sensation of being within the orchestra. The sound literally envelops each and every one of these spaces as it can come in from behind.
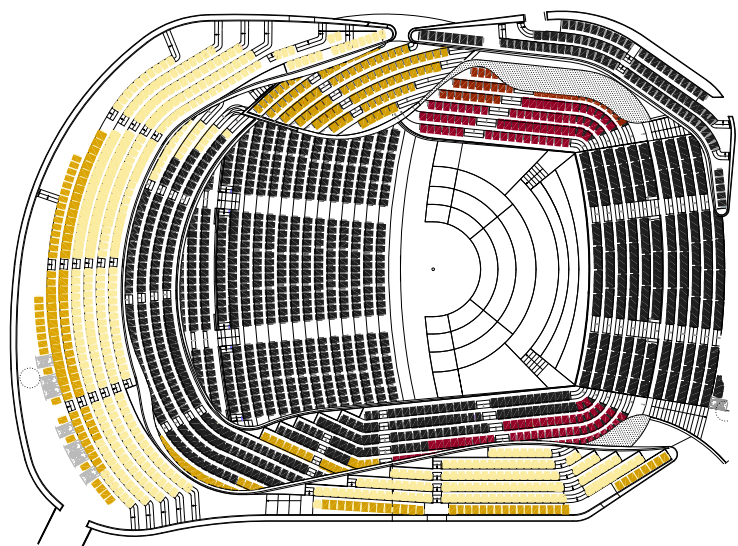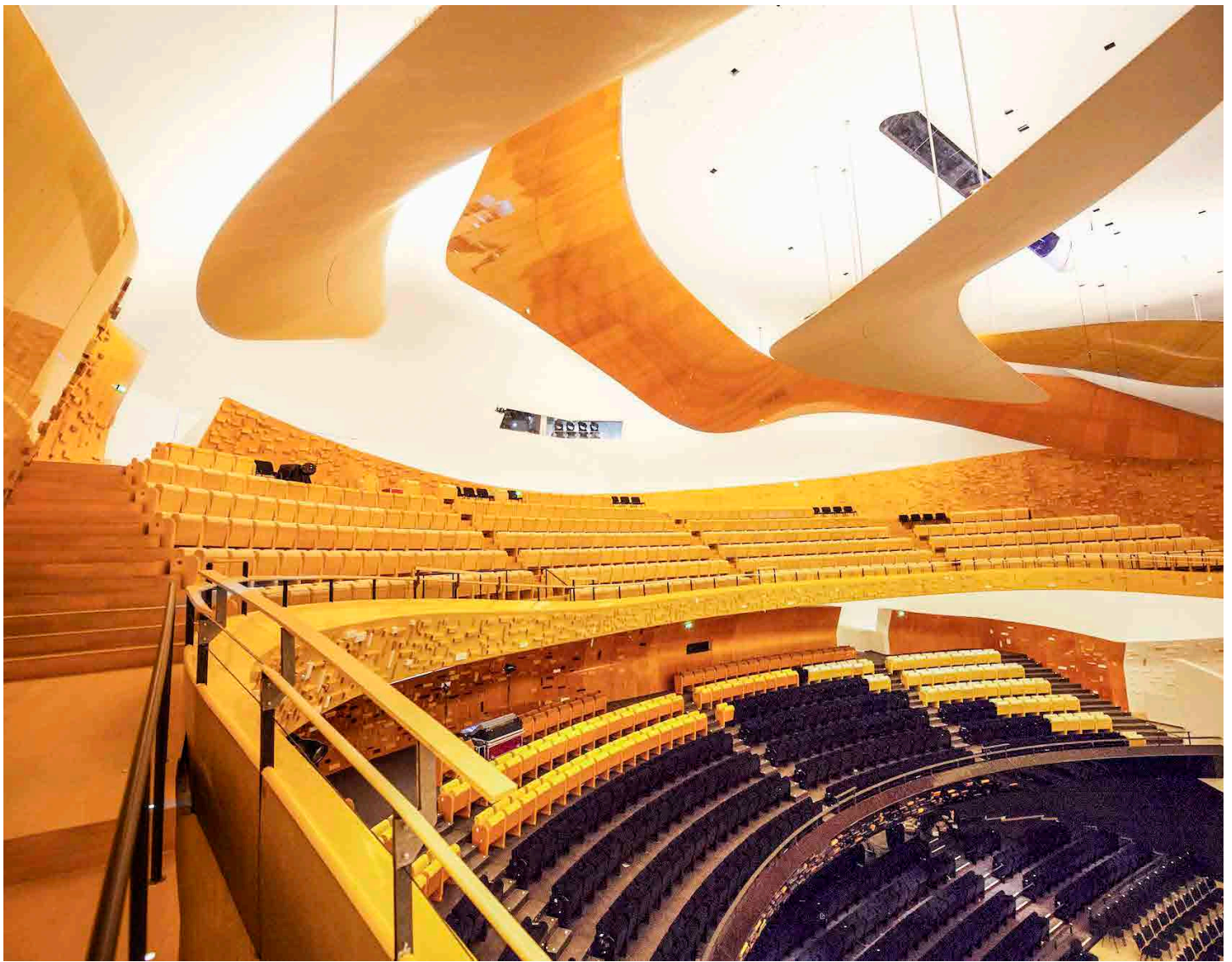
Challenges and solutions

Figueras International Seating worked personally with the acoustic engineers and stage designers to ensure that the seating designed by Jean Nouvel Ateliers fulfilled the demanding acoustic requirements and contributed to the hall's exceptional all-round acoustics.

The challenge of the project lay in creating a seat with extremely low acoustic absorption which would allow higher reverberation to be generated. This would compensate for the large size of the hall, despite its appearance, as it is wide and well-cushioned. Various changes to the seating and up to 10 acoustic tests, in laboratories in Paris and Barcelona, were needed to achieve the desired product.

Another challenge of the project was to create made to measure seating, a tailor-made product that would adapt perfectly to all corners of the undulating hall. Jean Nouvel conceived the Philharmonie as an adjustable concert hall, which could be adapted for any type of concert or show. Because of this, there are two mobile seating systems and Figueras' seats had to adapt to them. The choir, behind the orchestra, has a telescopic platform for 319 people. Jean Nouvel wanted to go back to the classic choir format, but in this case the seats can be hidden if the area is not in use. The second mobile system is in the stalls in front of the orchestra and enables 476 seats to be hidden under the floor. In this way the stage moves back, allowing standing room for around 1,000 people for concerts of other types of music.

Product supplied

1,800 Philharmonie model seats were installed, which feature a synchronised back and seat mechanism so that it takes up the minimum amount of space when folded up. The Philharmonie seats have 8 different upholstery colours, 5 different widths and 4 different shades of wood. The wood was treated to get the maximum possible shine, much like pianos, and the different coloured seats mark out different areas, in accordance with the architect's criteria. The hall also has 282 seats in a variation on the same model with a fixed back for shallow tiers and 319 "minispace" seats which are specifically adapted to the demands of the stage designer for the choir. The Figueras Oxymore seat - designed by Jean Nouvel - was also chosen to enlarge capacity if needed, as there are 300 seats that can be stored away or laid out, depending on the occasion. With this adaptability, the Paris Philharmonie can host classical music, pop, jazz and rock concerts and all kinds of shows.

 FIGUERAS