

Atlas of Details



Ferdinand Dutert. Galerie des Machines 1887-1889

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URL: <https://www.detailsinsection.org/archives/projects/galerie-des-machines>

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Atlas of Details is a research project to demonstrate how insightful a section can be, in order to represent the complexity of the architectural artifact, since it allows the simultaneous perception of materiality and form, of building envelope and interior spaces. Atlas of Details is a project by The Formwork, an association established by professors and PhD candidates with diverse academic backgrounds (history, architectural design, technology, preservation) working at the IUAV University in Venice and at the Milan Politecnico. For more information about the Atlas of Details and The Formwork, please contact info@theformwork.org.

The Formwork

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Ferdinand Dutert

Galerie des Machines

1887-1889

Text

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Drawings

Erasmus Bitetti
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Architect

Charles Louis Ferdinand Dutert (1845-1906)

Name of the building

Galerie des Machines / Palais des Machines

Site

Paris (France)

Client

French Government; City of Paris;
Private stakeholders (A. Christophle and others)

Contractors

Building contractors Monsieur Manoury, Monsieur Murat and Monsieur Grouselle (stonework and foundations);
Monsieur Poirier (foundations and piling);
Five-Lille, Cail (structure and construction, main nave arches);
Société d'Ivry, Société de Saint-Denis;
Moissant et Cie.;
Robillard (structure and construction, galleries);
Saint Gobain (glazed roofing)

Engineer

Victor Contamin (1840-1893)

Other actors

Victor Blavette (first working site inspector);
Henry Deglane (second working site inspector);
Eugène Hénard (secondary inspector);
Jules-Jean Charton (engineering staff);
Eugène Vincent Pierron (engineering staff)

Decorations

J. Martin (modeller);
P. Chaperon, A. A. Rubè, M. Jambon;
C. F. Champingneulle;
V. Lorin;
C. Crauk (pictorial decorations and stained glass windows);
E. Barrias - H. Chapu;
A. A. Cordonnier;
F. C. Barthélémy (sculptors);
Atelier Mortreux (ceramists)

Building permit

1885-1886 (design competition and General Exhibition Plan)

Start of construction works

1887

Project variations

1886-1887. Hypothesis for the design of a stone cladding for the arch bases (the variation was requested by the organising committee but was not implemented)

End of construction works

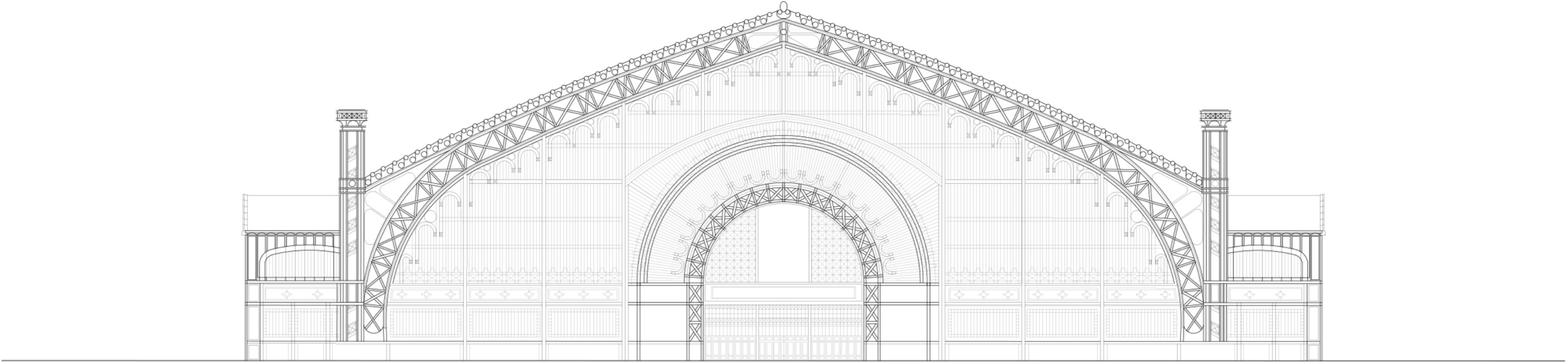
1889. Conclusion of construction works;
1910. Dismantling

Prizes

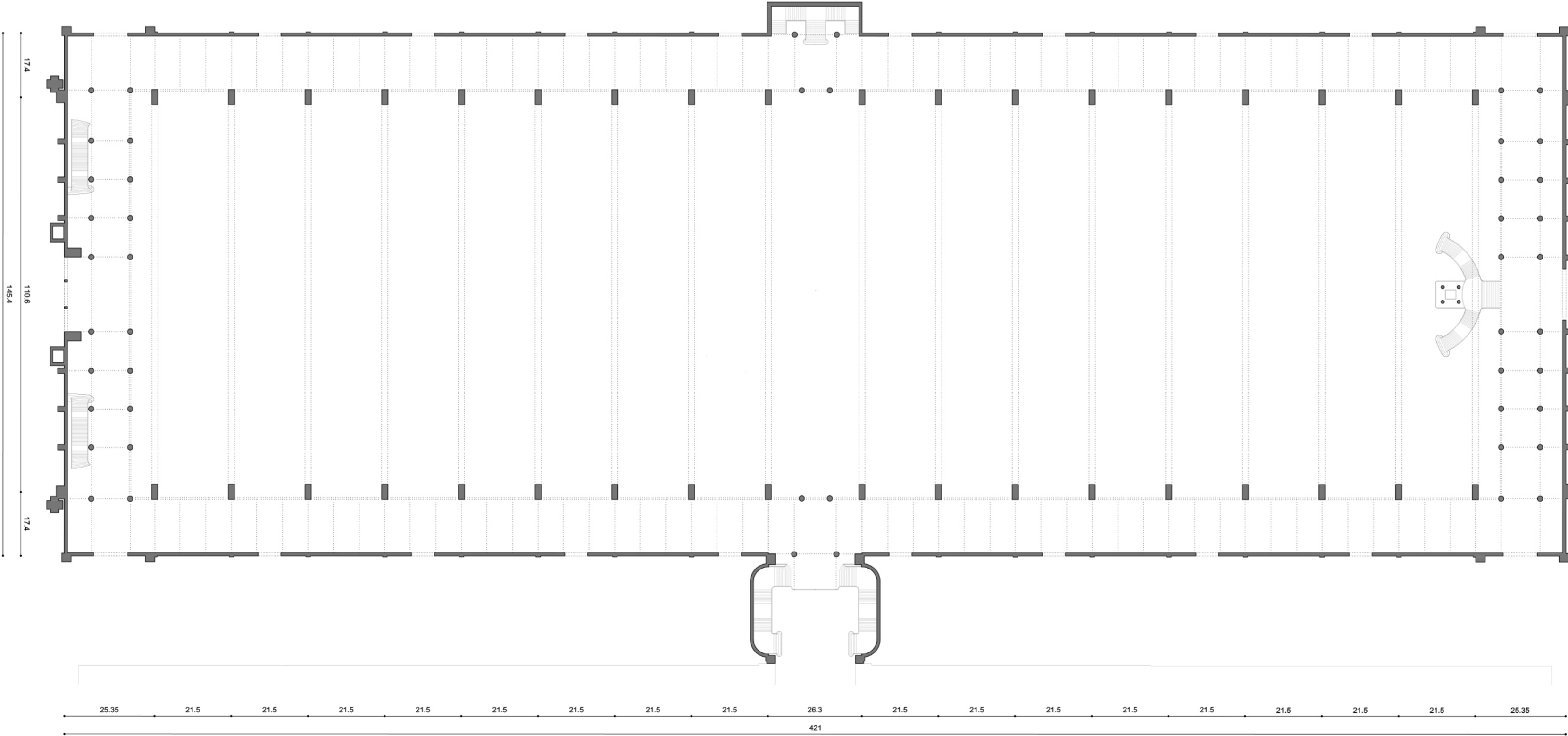
1889. Prix d'Osiris (awarded by the Comite de la Presse)

Construction system

Main struture consisting of eighteen great three-pinned metal arches, sitting on stone foundations and surrounded by external galleries. Two iron-vaulted vestibules on the long sides of the building.

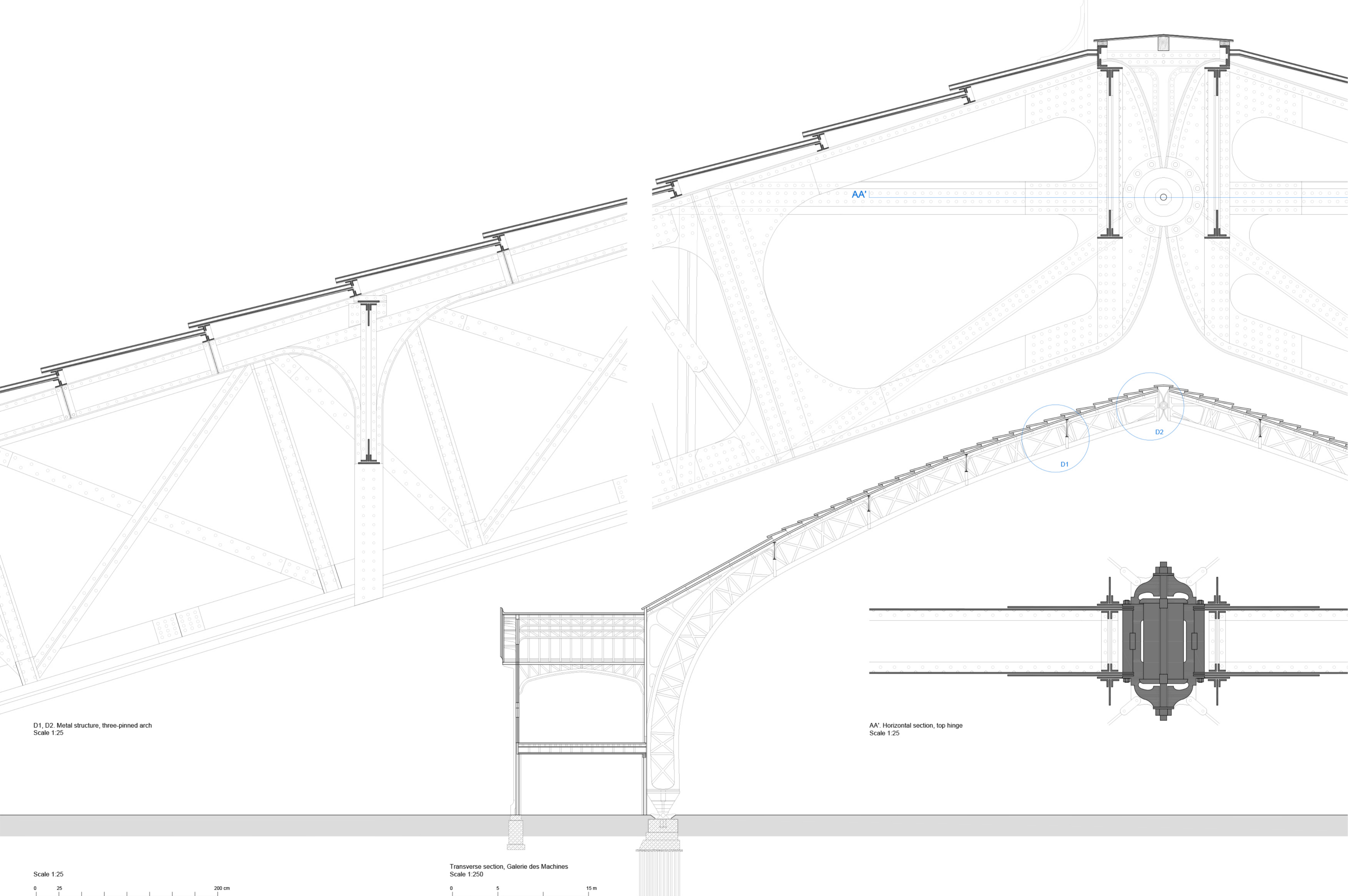


East elevation
Scale 1:500



Plan
Scale 1:1000



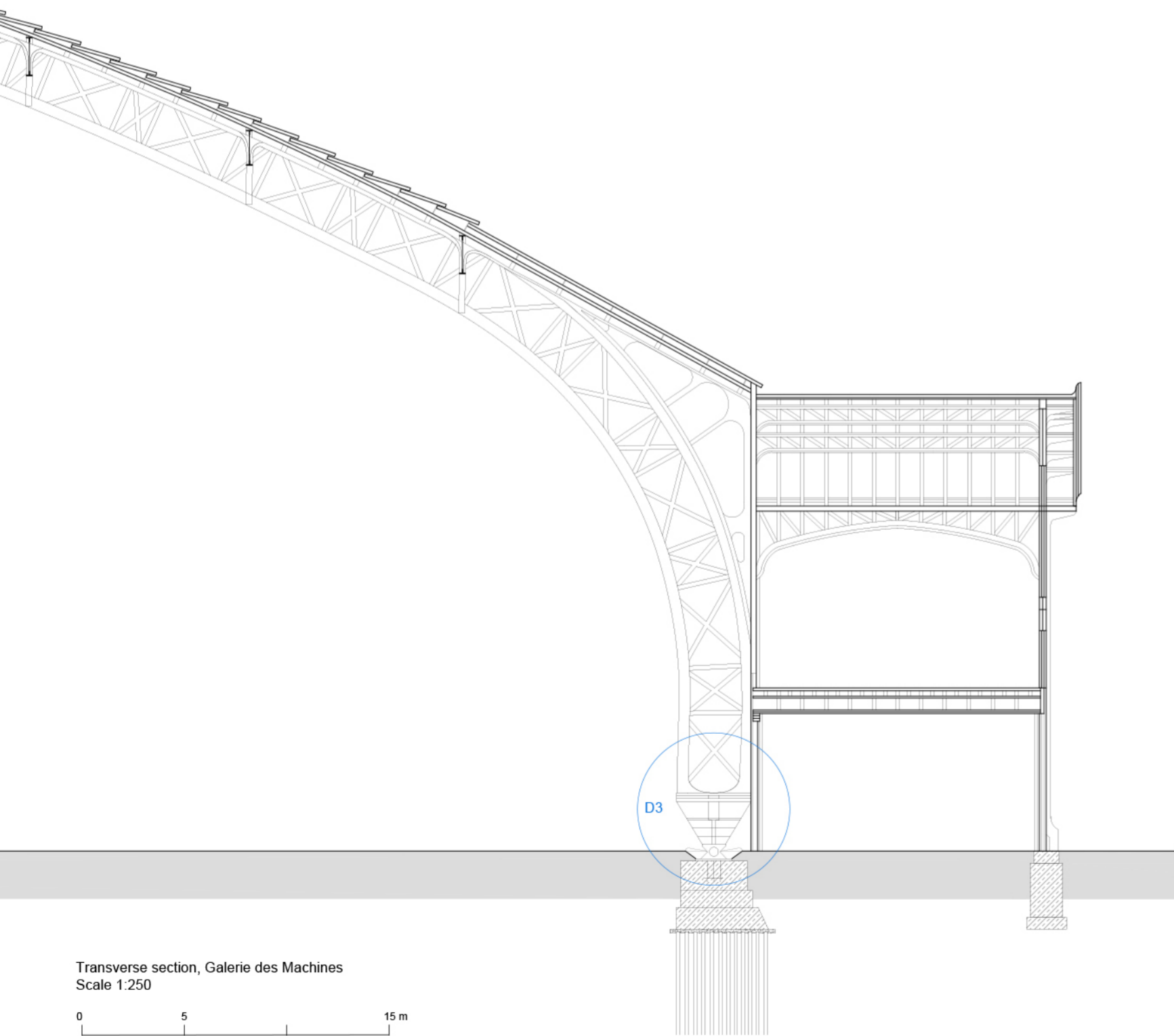


D1, D2. Metal structure, three-pinned arch
Scale 1:25

AA'. Horizontal section, top hinge
Scale 1:25

Scale 1:25
0 25 200 cm

Transverse section, Galerie des Machines
Scale 1:250
0 5 15 m



BB'. Horizontal section, arch base
Scale 1:25

