057.038 Design Studio Austrian Pavilion @ EXPO 2025 Osaka
2024S, UE, 8.0h, 10.0 ECTS Master

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Background

In the year 2025 Austria will take part in the EXPO in Osaka. The exhibition building should represent the brand "Austria" in Japan and serve as a platform for an exchange on economic, scientific, cultural and social visions.

The history of World Fairs dates back more than 170 years. The very first World's Fair was held in London in 1851 in order to promote industrialization and new technologies. While World Fairs were originally conceived as an international platform for product presentations, their meaning has shifted during the time. Nowadays, as it has become easy to access information at anytime and anywhere in the world through the internet, World Fairs have converted into a marketplace for ideas and innovation rather than physical products.

However, even some of the earliest World Fairs had also a great cultural impact, spreading artistic and technological concepts like a wildfire. One of these was the World Fair in Vienna in 1873, where Japan exhibited for the first time after more than 250 years of self-imposed isolation. This first public appearance on the world stage was carefully crafted and left a lasting effect on the visitors. Japanese arts and crafts deeply impressed European artists and architects and led to a wave of "Japonism" all over Europe. Austria, on the other hand, become known as the capital of music and still draws on this image until today.

The first Expo in Japan took place in Osaka in 1970 – almost 100 years later - propagating the architectural concept of "Metabolism" worldwide. The upcoming Expo in Osaka in 2025 is hoping to follow up on these success stories.
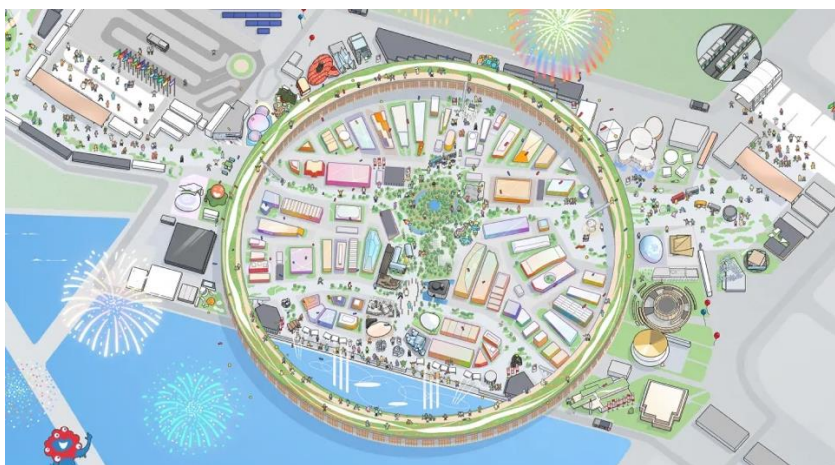

Figure 1: Layout of the EXPO area "Yumeshima" in Osaka
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Design Task

The task is a design for the Austrian pavilion at the EXPO 2025 based on the official competition requirements by the Austrian Chamber of Commerce (WKÖ). The overall topic of the EXPO is "Designing future society for our lives" with the three subtopics: Saving Lives, Connecting Lives and Empowering Lives.

In this connection, it is important to consider the identity and image of Austria in Japan and explore the potential of architecture as a national symbol and image carrier. The existing theme for the Austrian pavilion "Composing the future", which taps on the main image of Austria in Japan as the world capital of music, may be utilized, but should encompass also core topics like sustainable building, renewable energy, AI, life sciences, future mobility, etc.

However, the architecture of the pavilion should not only act as a billboard but incorporate its message both on the outside and inside (compare Robert Venturi's concepts of "decorated sheds" and "duck" architecture) in the form of a "holistic visitor experience".

Design Requirements

- A design representing and promoting the Austrian identity, in accordance with the topics "Designing Future Society for Our Lives" (EXPO), "Empowering Lives" (Sector of the Austrian Pavilion) and "Composing the Future" (Theme of the Austrian pavilion), including the key concepts "nature, tradition, innovation"

- A sustainable and reusable construction
- Nation branding and holistic visitor experience

- Plot size: 922,96m2, max. building size: 646m2, max. height: 12-17m (50% of the building area)

- Functions: Exhibition space: ca. 350m2, multipurpose space: ca. 120m2, gastronomy, kiosk/shop, rooftop area with bar, office spaces, storage, restrooms, etc.

- Expected visitor capacity: 1.200-1.500 per hour!

For further information, please refer to the following webpages:

https://www.expo2025.or.jp/en/
https://www.expoaustria.at/en/about-expo/
https://www.expoaustria.at/en/
https://www.wko.at/aussenwirtschaft/road-to-expo-2025 (in German)

Methods

In order to support the pavilion's function of promoting the image of Austria, the design process will consider concepts of nation branding and experience design.

The design will be developed and presented in the library's VR Space (DAVIS - Data Visualisation Space) [1] as a tool to create and assess the quality of the spatial experience. This requires good prior knowledge of 3-dimensional design, in particular 3DS Max.

To provide support, two workshops are offered as part of the course to impart the technical know-how for VR implementation.

Training: 17.4.-19.4.2024

Support in DAVIS: 10.6. - 14.6.2024

Due to the temporary nature of the exhibition (6 months), easy assembly and dismantling as well as the sustainability of the construction are also important aspects of the design. This area will be developed together with Prof Oliver Englhardt (Building Construction and Preservation) and students of Civil Engineering.

Figure 2: Data Visualization Space (DAVIS) at the Main Library of TU Wien
[1] https://www.tuwien.at/en/library/digital-scholarship/data-visualisation-space-davis

ATTENTION:

It is necessary that all participants have already good skills in 3D drawing, design and visualisation as the workshops will only teach the transfer of your existing data to the 3D wall. Students with knowledge of "3ds Max" are preferred as this software serves as a mediator between your own CAD Software and the software environment (COVISE) [2]of the 3D Wall.

After the initial design process, we will have regular meetings at DAVIS and you will have the option to test your designs on a regular basis. The final presentation will also be take place in that 3D environment. Physical models will not be necessary. Team work in groups of 2 is mandatory.

[2] https://www.hlrs.de/solutions/types-of-computing/visualization/covise

Schedule:

07.03.2024, 1:00pm | Introductory meeting
Attendance is absolutely compulsory for all participants!
Students not attending this first appointment will be deregistered from the course.

14.03.2024 – 20.06.2024 Consultations
Weekly meetings: In order to pass this design studio, it is necessary to attend the consultations on a regular basis.

21.03.2024, 1:00pm Concept Presentation (compulsory attendance!)
Each group gets 15-20 minutes to present their project.

17.04. – 19.04.2024 Compulsory VR Workshop

18.04.2024, 1:00pm Concept Presentation (compulsory attendance!)
Each group gets 15-20 minutes to present their project.

10.06. – 14.06.2024 Compulsory VR Workshop @ DAVIS

27.06.2024, 1:00pm Final Presentation (compulsory attendance!)
@DAVIS: Each group gets 10 minutes to present their project. Please prepare a digital presentation AND
an A3 PDF folder with high resolution.

Requirements and ground rules:

Registration: Registration to this course only via the faculty's Pool Application system.
Please upload your portfolio in the application system which proves your 3D drawing and visualization skills.
We do not accept any other applications via email, phone or personally!

Compulsory attendance: To pass the design studios, personal attendance is necessary at intermediate presentations, final presentation and at 50% of the regular consultations. Participants who do not fulfill the required attendance will automatically receive a negative evaluation without any exceptions. The reason for absence (illness etc.) is not relevant.

Always be on time: Always be on time and pay attention to the consultations of other projects. This saves your and our time as we don't have to explain the same issues and have more capacity for individual topics.

Language of tuition: International students are welcome! We will try to communicate most information in English. However, some documents will be available in German only – we will help you to translate the most important information in English upon request. All participants must have good English proficiency and the final presentation (plans, project description) will be in English.

Attention English speaking students: Do not merely pick this course because it is conducted in English. If you do not provide the necessary skills, it makes no sense to participate.

Required skills:

- Design Competence: The design has to include concepts of branding, exhibition design and a holistic visitor experience
- Construction: Easy assembly and dismantling, sustainable construction (supported by structural engineers)
- CAD and 3D Design: 3D design and visualizations skills and are an absolute must!
  Applications from students familiar with 3ds Max will be preferred.

Evaluation criteria: Design quality, functional and structural solution, exhibition design and visitor experience, quality of the 3D model and presentation skills.

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