

Project
ICAMT Online Conference 2020

Date
7 October 2020

Project Number
2010.905

Reference
AE0059/Te

Renovation Museum Het Valkhof Nijmegen

Making an existing museum building futureproof, sustainable and accessible

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Abstract

This paper is about Museum Het Valkhof in Nijmegen, the Netherlands. A comprehensive refurbishment plan has been developed for the museum building as part of a wider recovery plan for the museum that aims to make both the museum building and the institution future proof. The paper addresses the context and architecture of the museum and the scope of the Masterplan for the museum building developed by ToornendPartners in close collaboration with the museum director, Ms Hedwig Saam, the museum organisation and UNStudio, the original architect of the museum building. The Masterplan was delivered early 2019 and was adopted by the Municipality of Nijmegen and the Province of Gelderland, who as owners of the various collections of the museum, are main stakeholders late 2019. The design brief based on the Masterplan has been finalized. The design process is due to commence early 2021.

Keywords

Futureproof museum building – master planning – sustainability – accessibility

I An introduction to Museum Het Valkhof Nijmegen: context and architecture



Exterior of the museum building ©ToornendPartners

Museum Het Valkhof in Nijmegen was the first museum designed by Ben van Berkel, the founder and director of UN Studio and was completed in 1998. The museum building, situated close to the Waal river, is located in a central and historically important site. The site is part of the bid that has been submitted for the Roman Limes that crossed The Netherlands to become a UNESCO World Heritage Site.



The Limes line ©Limes project website

Below, the development of the site through the ages is illustrated, running from the top left to the bottom right.



Historical development of the Nijmegen Castellum ©Municipality of Nijmegen

In the image below, the building of Museum Het Valkhof is indicated in the bottom right hand corner. The Roman Forum is projected onto the museum building and traces of the *Castellum* walls have also been visualized. The image also shows future landscaping plans of the Municipality regarding the surroundings of the museum building for the landscaping



Projection of the Roman Forum and Castellum ©Municipality of Nijmegen

Museum Het Valkhof predates the popular concept of transhistorical presentations as the collections, that are owned in part by the Municipality of Nijmegen and in part by the Province of Gelderland, have always consisted of important historical and archaeological artefacts as well as contemporary art. The museum has various locations, with the UNStudio museum building and the building of the Museum KAM, that holds the archaeological collection being the two main locations.



Museum Het Valkhof and Museum KAM ©ToornendPartners

For Museum KAM a refurbishment is also being planned at this time, but this paper only addresses the UNStudio location at the Kelfkensbos Square.

Unusual for the constellation of museum organisations and buildings in The Netherlands, the museum organisation is the owner of the building and receives funds from the Municipality and Province and other institutions for the care of their collections and running the museum.



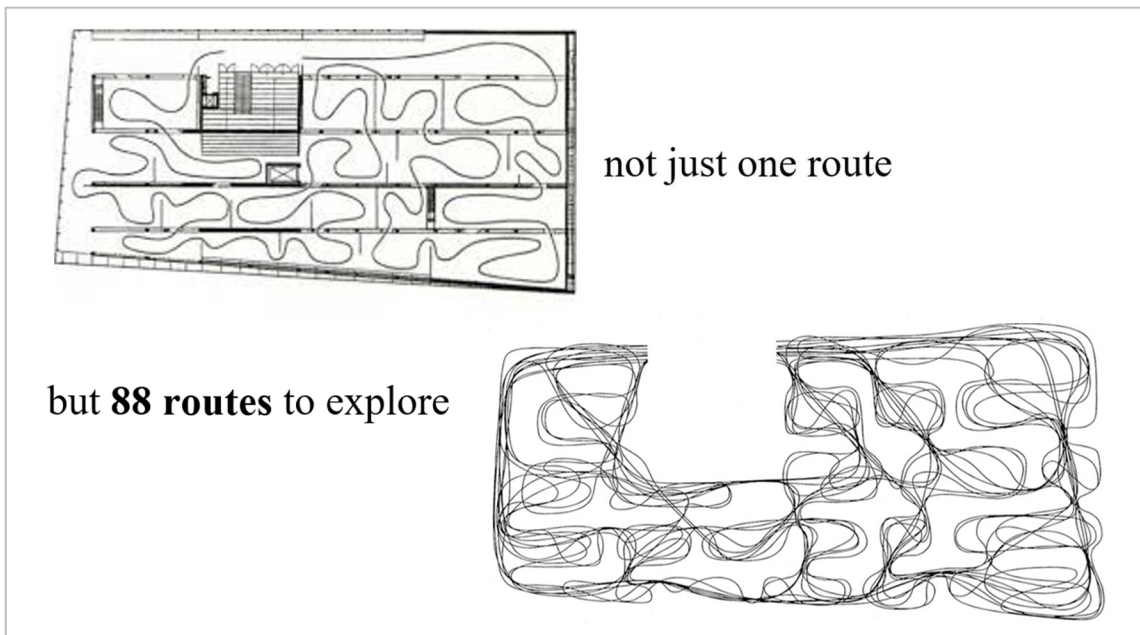
Interiors Museum Het Valkhof ©UNStudio

UNStudio won the commission for the design of the museum building in an architectural competition, developing the building in the period 1995-1998. The architecture is both admired and reviled. While some find the glass facades to be too stern and forbidding, naming the building ‘the swimming pool’, the building also has welcoming open hybrid spaces and architectural elements that evoke the Waal river and bring coherence to the visitor experience, which are appreciated to this day.



Interiors Museum Het Valkhof ©ToornendPartners

The central exhibition space lives up to the original design concept of being able to experience that space in 88 different ways.



The 88 routes, ©UNStudio

But over time, now 25 years later, the building is beginning to show its age. The expansive ceiling panelling, waving and weaving through the building, is prone to damages that result from maintenance work on all the installations installed above it and additions and changes made to the under-the-ceiling lighting required to meet specific lighting demands for exhibitions.

The height difference between the Kelfkensbos Square and the entrance level of the museum building has resulted in various ramps and steps that have been incorporated in the design, in some instances right behind a door, that are a daily hindrance to the accessibility of the building and starkly contrast the otherwise naturally flowing spaces.



Museum entrance ©ToornendPartners

This not only affects the visitor experience inside of the building, but also prevents the flow between the Kelfkensbos Square and the building: the entrance of the museum building presents a stern delineation between the museum and its surroundings, cutting the museum off from the urban fabric and vice versa.

Various other technical and functional issues need to be resolved as well: the glass façade has started to delaminate locally, the climate installations are outdated and practically unserviceable, lighting is an issue and the security installations and provisions are no longer sufficient. Several back of house spaces are no longer fit for purpose: the offices are cramped and there is no differentiation between the storage space for the collection and other items.



Lighting in the current ceiling, mixed spaces, glass façade ©ToornendPartners

Under previous leadership the museum organisation had been developing plans for years to address the issues with the building, both technical and functional. The plan developed in 2014 even reached a stage at which construction could have started, but the organisation turned out not to have the funding in place for the significant investments required to realize the ambitious plan. In the following years, studies for reduced plans were not deemed feasible and were not realized. This unfortunate period coincided with the museum falling behind in terms of maintaining the interest of the public, with visitor numbers dropping over time.

A critical turning point was reached late 2017 when the then new director, Ms Hedwig Saam, developed a turnaround plan that was able to generate the much needed confidence within the Municipality and the Province, as main stakeholders and also investors, that a futureproof museum organisation could be developed. The new plan centred around the transition from a cultural and art historical presentation to a more transhistorical presentation, embracing and tapping into the depth and breadth of the collections.

To simultaneously address the building qualities required in support of that organisation and presentation, the development of a Masterplan for the refurbishment and recovery of the museum building was greenlit mid-2018.

II Development of the Masterplan

While discussing the scope of the Masterplan at the start of the collaboration with the museum director, three vital aspects were identified. The first was to be realistic about the level of ambition that could be implemented in an existing building when it comes to functional and technical improvements, as well as the extent to which measures to increase the sustainability and reduce energy consumption may be implemented.

The second aspect was the importance of not developing multiple scenarios for the building and building installations. A question often asked in our working practice by administrators and directors is to develop scenarios: a scenario containing only the ‘absolutely necessary’ changes, a scenario that contains changes that are ‘nice to have’ and a scenario somewhere in between. The desire to have a choice or at least ‘dials’ that can be turned and tweaked to generate the best possible mix and match between as yet unknown ambitions and scope and also as yet unknown levels of investments, seems to be the main driver behind this.

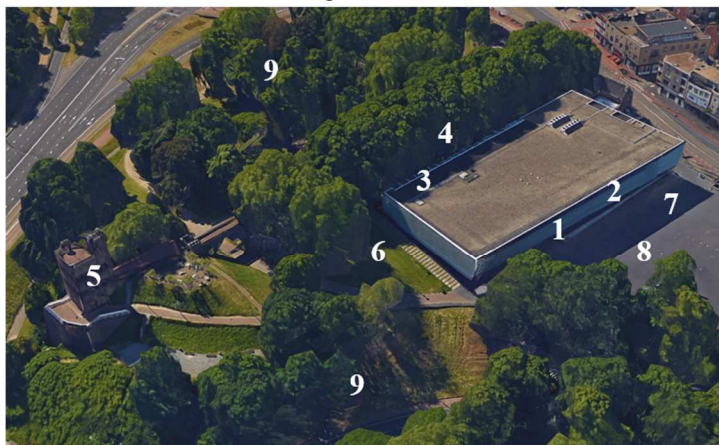
But while scenarios concerning the institution and organisation are certainly useful, and should be studied and developed, the same treatment does not necessarily follow for the building. Once the vision and mission of the organisation have been determined, there is typically a reasonably clear outline for the building and technical requirements that are needed in support of the organisation and its mission. Scenarios constitute separate Masterplans that require their contents to be developed integrally in line with the scope of the respective scenarios.

When one Masterplan is commissioned, the best way forward is to take aim for the best possible outcome. Anything less will end up holding back the organisation, anything more is difficult to explain and consequently difficult to finance.

The third aspect was to start with a meeting with the architect, to explain the plan and process ahead. With UNStudio open to the collaboration with the museum director and enthusiastic about futureproofing the building, work on the Masterplan commenced.

III Outline of the Masterplan

The Masterplan for the museum building needs to resolve not only the internal technical and functional issues. The positioning of the building in its surroundings and making it part of the urban fabric is an important goal. That is the starting point for an accessible, open and welcoming museum. An ambition document formulating the long term plans of the Municipality and the Province Gelderland for the Valkhof Quarter in which the Kelfkensbos and the museum building are located, had already been developed. In a municipal working group, in which amongst others the urban planner of the Municipality Nijmegen participated, the potential opportunities in line with these future developments were studied, such as accessibility to the museum roof from the city walls (number 4 in the image below) and seeking a connection with the Belvédère (number 5). Out of a longlist, a number of items could effectively be incorporated in the Masterplan, such as the outline of the Castellum (number 8). The synergy secures a further development that is beneficial to the museum as well as to the surroundings.



1. Toegankelijkheid museumgebouw zijde Kelfkensbosplein
2. Naar buitentreden museum door verbinding horecaterras Kelfkensbosplein
3. Overbrugging van stadswal naar dak van het museum (uitzichtpunt)
4. Doorgang museum van/naar stadspark door poortje in de stadswal
5. Opnemen Belvédère in/bij programmering/exploitatie
6. Onderzoeken of de trappen aan weerszijden van het gebouw (barrières) weggenomen kunnen worden.
7. Verbinding Valkhofgarage en Museum Het Valkhof
8. Visualisatie 'castellum' grachten (doorlopend buiten/binnen)
9. kunstobjecten in de omgeving (beeldentuin, park)

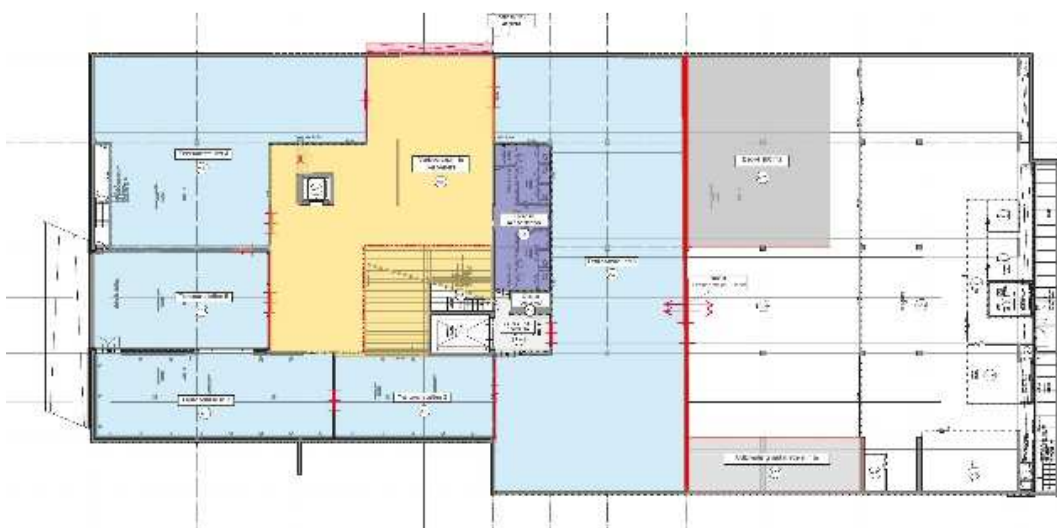
Surroundings ©ToornendPartners and ©Google Earth

After having looked at the surroundings, the building's interior was studied, pinpointing the exact extent of the shortcomings and devising integral solutions for them.

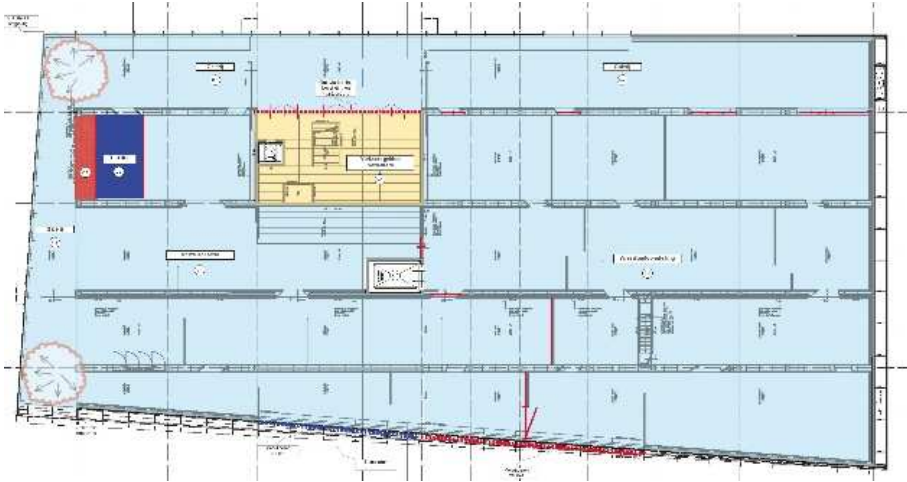
Starting from the entrance of the museum building, the museum aims for an open and welcoming floor plan accessible to all. In the future, a ticket will only be needed to visit the actual exhibitions that are planned on the basement floor and on the first floor. All floor plans have been optimized based on this principle, freeing up more space for exhibitions and new climate installations. A new feature that is still under development, is making the roof of the museum accessible to visitors. As mentioned above, a connection will be developed between the city wall and the roof allowing for artists' installations and incorporation of the Limes theme.



Sketch plan Ground (Entry) Level ©ToornendPartners



Sketch plan Basement (Exhibition) Level ©ToornendPartners



Sketch plan Top (Exhibition) Level ©ToornendPartners

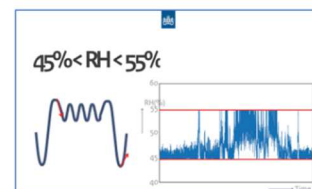
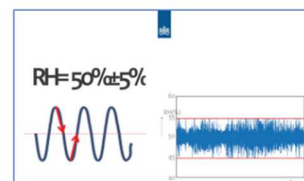
Based on the new floor plans and a review of the various user flows and climate requirements, zones were developed for the climate conditions, which will aim to meet a minimum level of ASHRAE B, striving for ASHREA A for the temporary exhibition spaces and an improved overall security plan.



ASHRAE B

RH 40% – 60% (30% min - 70% max)

T = 15°C – 25°C (30°C max)



Proposed climate zoning in the Masterplan ©ToornendPartners and climate values ©RCE

Financial Partners

Overview of spatial and technical requirements ©ToornendPartners

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The image displays three overlapping screenshots of a detailed costing spreadsheet for 'Masterplan Museum Het Valkhof, Nijmegen'. The spreadsheets are organized into sections, with 'Basisfasering' (Basic Structuring) being a prominent category. The tables include columns for item descriptions, quantities, and costs. The bottom-most screenshot shows a more complex table with multiple columns for different cost components and a summary section on the right.

Detailed overviews of interventions and costs ©ToornendPartners

Detailed costing was all-important to the approval process as it explains in great detail how each intervention affects the total cost. Instead of offering scenarios upfront, the costing overviews in combination with floor plans with all the interventions allowed for discussions on what the effect would be should a specific measure be taken out of the equation.

Having been asked by the Municipality which interventions could be done without, the answer was simple: all measures were equally important to the intervention as a whole. The return question was which measures the Municipality considered to be superfluous? As the Masterplan consists, as is often the case, of a great number of interventions brought together and wherein one intervention solved multiple issues, it became clear that all the significant interventions such as investing in new climate and security installations were also deemed absolutely vital by the Municipality and that the costs for the projected interventions were reasonable.

The cost of other interventions, great in number but relatively small in their respective costs, were so minor in the greater scheme of things that there were in the end no discussions regarding the inclusion of these interventions in the plan as a whole. The overall costing was validated and the scope of the Masterplan were endorsed. With this first step towards formal approval of the Masterplan, the plan was approved late 2019.

Interestingly, an image that had been developed by UNStudio in 2014 for the plan that stranded due to lack of funding, turned out to adequately express the current ambitions for the building. In a way that plan came full circle, but now with a solid underlying business case in an approved Masterplan with secured funding.



Artists impression future entrance ©UNStudio

IV Moving ahead: development of the brief and other steps

After the approval of the Masterplan, or at least the formal commitment of the Municipality of Nijmegen and the Province Gelderland to fund the refurbishment of the museum building for the total amount indicated in the Masterplan, the project is now taking shape. An external project manager has been appointed who is responsible for furthering the Masterplan. Besides developing the brief for the design team for which ToornendPartners has been commissioned, several other tracks are being laid out.

Due to the sizable investments required, the Municipality will acquire the building from the museum organisation. This changes the dimension and the roles of all those involved, not just within the project, but for the long term, such as determining the allocation of tasks and responsibilities for future maintenance et cetera.

The time frame for the Masterplan was also reviewed as part of this transition. A starting point for the museum was to remain open during the refurbishments, leading to the Masterplan being detailed in three main project stages with options for the time line requested by the Municipality.

With the Municipality acquiring the building and taking the lead, this has changed: the project will be executed in one stage after which the museum organisation will return to the building as tenant. Taking out the stages, will bring the overall costs down as every cut made in the process is costly. In addition, a number of requirements have been added to the brief, following from standard requirements or goals the Municipality has in terms of sustainability. The outline of the Castellum had already been identified as an interface with the museum building, now the importance of the site in relation with the Limes nomination to become a UNESCO World Heritage site will be reflected in the process and project. These additional requirements will bring additional costs, which should be offset by savings due to the a single execution stage, allowing for the project to stay on the track that has been laid out by the Masterplan.

Bio

Ms Kiem-Lian The, MSc LL.M (1972) is Managing Partner and Senior Consultant/Project Manager at ToornendPartners in Haarlem, The Netherlands. Having obtained a Master's Degree in Architecture, Urbanism and Building Sciences at the Delft University of Technology, she joined this project management and building consultancy company in 1998. Since joining, she has worked on a wide variety of building and consultancy projects, with an increased focus on buildings for the arts.

Her fields of expertise include theatre and museum techniques, project planning, feasibility studies, long term maintenance planning as well as legal and contracting strategies. Besides working on Museum Het Valkhof, she has been Project Leader for the Netherlands CollectionCentre, the new centralized national storage building that has been successfully delivered earlier this year and is working on a number of other museum projects for the Teylers Museum and the Frans Hals Museum in Haarlem, the Stedelijk Museum Alkmaar and others.

Other data

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