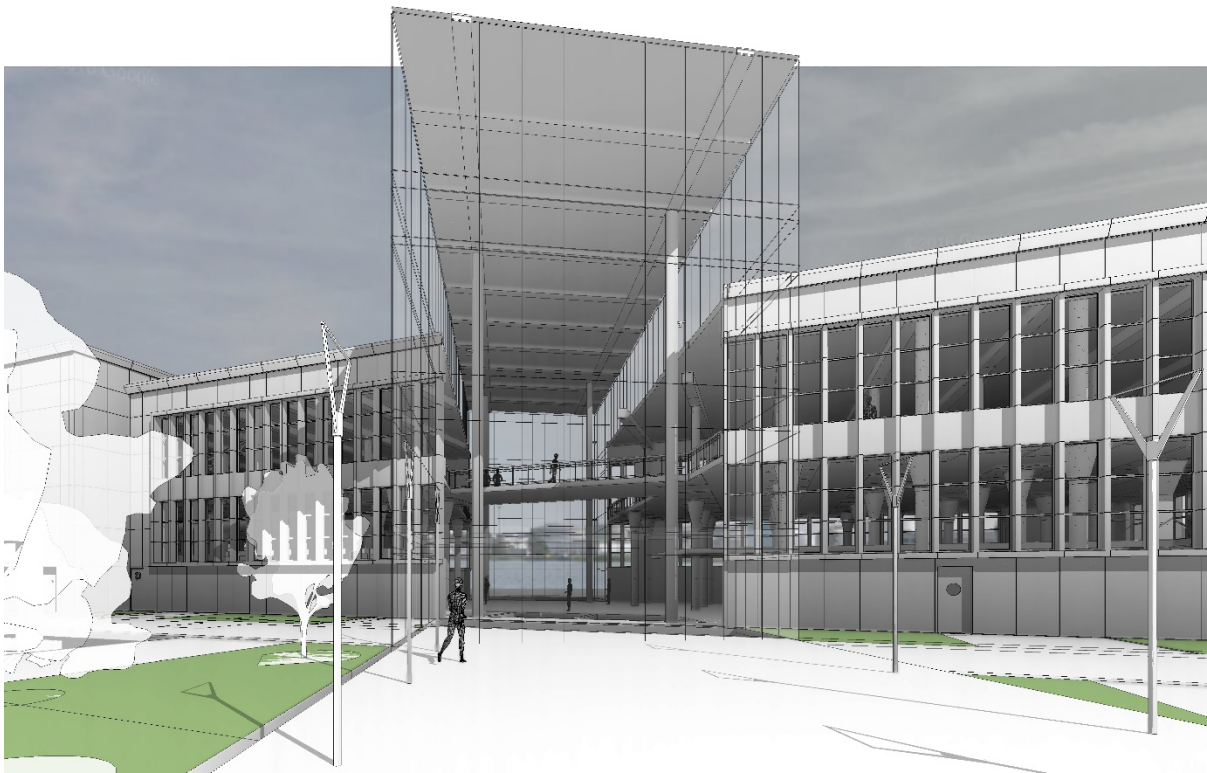


# COLD WAR MUSEUM

IN BUILDING 429 OF THE HEMBRUG AREA



AR3AH110 – Heritage & Architecture Graduation Studio ‘Revitalising Heritage’

Reflection Paper

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Heritage and architecture are strongly connected, both in the title of this graduation studio, but mostly in real life. It could be argued that since humans have occupied and experienced the largest portion of dry land of our planet, it is logical that most of our -built- environment is inscribed in someone's memories. This makes it, to a varying extent, part of our heritage. As most human activity takes place in urban settings, and within some form of a built environment, dealing with Heritage is an issue very few practitioners will not have to face. This makes the issue of Heritage & Architecture even more vital.

This Heritage & Architecture graduation studio is centred on the Hembrug site in Zaandam, Netherlands. Hembrug was a former military area, housing the military production facilities of Artillerie-Inrichtingen, an ammunition production company, and a Dutch army base. My project is focused on Building 429 (abbreviated as G429) of the ensemble. Designed in 1955, it was destined to accommodate an order for 36 million .50" calibre rounds for the Browning Machine Gun, as result of the Dutch NATO membership. Being a major employer, Artillerie-Inrichtingen was important to the local community, as well as part of the overall effort for a self-sufficient Dutch national defence. G429 in particular, has been called the "face of Hembrug", due to its size and highly visible location on the North Sea Canal, making it significant in the memories of others as well.

The graduation studio Hembrug is a chance to rehearse how we, as future practitioners, will have to deal with Heritage. As with any founded scientific work, one must start with the proper research. It could be argued that research happens continuously through our every interaction with our surroundings, and that is especially true for architects. Observation, experience, sketching and the study of precedents are some of the ways through which we acquire knowledge, oftentimes without a specific goal. We shall thus confine this paper to 'formal research'.

Even though research is necessary for every project, it is crucial for Heritage projects, as our collective memories, values, customs and history, i.e. some of the cornerstones of our identities, are often embedded in them. For one to approach a Heritage project correctly, one must first gain a well-rounded understanding of the object, its contexts (geographical, sociocultural, etc.), as well as its meaning. The meaning of a building is not mentioned here as a vague academic question; heritage buildings may be connected to the very identity of a people, as was the case of Stari Most in Mostar, Bosnia.<sup>1</sup> While not comparing the cultural significance of Stari Most and G429 to their respective communities, the general principle is clear. Thus, in order to safeguard these qualities, an architect

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<sup>1</sup> UNESCO, Old Bridge Area of the Old City of Mostar, <https://whc.unesco.org/en/list/946>, n.d.

must comprehend which they are and what their value is. This requires substantial research, in considerably more depth, breadth and detail compared to the design of an 'average' project.<sup>2</sup>

In the case of the Hembrug studio, I followed the 'standard' research method, with some adjustments. These adjustments are mostly found in the non-linear approach on scale (e.g. research on different scales was not always conducted in an ascending/descending order) and in the combination of primary and secondary sources (i.e. the study of primary and secondary sources was intertwined). More specifically, my research on Hembrug began before my first visit to the site, through electronic sources. What followed was the analysis of the case study of Willemsoord (Den Helder), a former military area which was redeveloped, close to the scope of the graduation studio. This step of a more practical approach to secondary research was followed by in-situ primary research in Hembrug, on an urban scale. Research then became secondary again, focused on archives, records, photographs and written sources (e.g. newspapers & magazines) on each individual building/ensemble. These findings were confirmed and enriched by further primary research, on site. The results of the research thus far were compiled in a report, while a large portion of it was recorded in a BIM model of the existing situation. In my case, this model is not merely a tri-dimensional representation of the existing situation, but also includes information on each element of Building 429 (ranging from its thermal values to time of its construction and its current state). The report, which includes sketches, precedent studies, site photographs, etc., is a more subjective record of the facts, compared to the BIM model, which is an objective representation of the 'hard' facts about this building, but does not capture its intangible qualities. Naturally, not every decision during this period was guided by thinking absolute terms; for example, the choice of Building 429 as the focus of my graduation project was based on more subjective reasons.

The period described above, ranging up until the P1 presentation, was purely focused on research. This changed, as design started to become a larger part of this process. Of course, the process of designing includes its own research, even if that is no longer centred on the object in question.

The first example of this arose during the process of selecting a (new) function for the chosen building. In my case, the broad direction of a cultural function was decided through criteria of a larger scale, some of which based on principles of urban planning and real estate. In layman's terms, a cultural building in front of a large (plaza-like) area in the centre of a site to be redeveloped, would encourage the development, attract more people, add functions and, ultimately, increase the value (measured in resident/visitor satisfaction, and as an extent in Euros). The choice of a Museum, and then

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<sup>2</sup> Marieke C. Kuipers and Wessel de Jonge, *Designing from Heritage: Strategies for Conservation and Conversion*, (Delft: Delft University of Technology, 2017), 27.

specifically of a Cold War Museum, was heavily influenced by the building's features, such as the large windows on all elevations, placed at a high level, the open space, rigid construction and strict grid. All these elements increase the potential for exhibition (well-placed openings for beneficial natural light) and flexibility (open space and strict, repetitive grid). The Museum programme is enhanced by secondary functions; the temporary exhibition space would diversify the Museum's theme and allow for more revenue; the shops are a major marketing medium and income source; the café would attract more visitors, especially as it is located on the sea front; the auditorium, which can be seen as an entity in itself, is a major source of revenue for the Museum; last, the restaurant and event space added on top of the Museum would ensure that the building is used for more hours during the day and provide even more income. In the end, all these would contribute to the visibility and financial sustainability of the Museum, which would, in the end, benefit the visitors (e.g. through lower admission costs). Other necessary functions are present as well, such as technical installation spaces and offices.

As mentioned earlier, most of our built environment is part of someone's Heritage, to different extents, in the sense that it is part of their memory and has in some way contributed to who they are or what their ideas are. Certainly, some structures are much more significant than others, to a much larger number of people: a hypothetical 1980s building, with nothing significant about it, would not be missed from the vast majority of society. It might though, be closely connected to a person's childhood memories, and thus very important to them. In other words, part of their -personal- Heritage. Building 429 of Hembrug is a building that many people experienced, mostly from the outside. As a part of travellers' and commuters' memory, it might be somehow significant. As the symbol of Hembrug, it stands for much more for the local community, especially for a certain generation. This Heritage should also be preserved and re-introduced to younger generations.

According to the Cultural Agency of the Netherlands, the Dutch government has designated five points as the most important aspects of cultural heritage in the country. These are 'World Heritage', 'Flood defences', 'redevelopment', 'living landscape' and 'Reconstruction era'. It is very interesting that the Reconstruction era is the only period mentioned explicitly amongst these five themes. Specifically, "The period 1940-1965 must remain a visible feature of the Netherlands. Many innovations came about in that period – large-scale housing developments, standardisation of the construction process, separation of functions – all of which now require care and protection".<sup>3</sup> Building 429 was never intended to be a part of Cultural Heritage, let alone a monument. Designed in 1955 and built in 1956, its purpose was to quickly facilitate an order for ammunition, and in its way, contribute to the

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<sup>3</sup> Cultural Heritage Agency of the Netherlands, <https://culturalheritageagency.nl/en/modernising-heritage-management> (2012)

Reconstruction. And while it has been etched to the memory of both passers-by and more than two generations of the local community, it was only registered as a municipal monument in late 2006.

The preservation of Heritage is not the only reason to revitalise Building 429; according to Carl Elefante, the president of the American Institute of Architects, “the greenest building is ... one that is already built”.<sup>4</sup> This view is more relevant now than when Elefante first coined this quote, as the state of our natural environment is more dire than ever. With the construction industry being a major contributor to the deterioration of our environment, architects need to find ways to ease this burden as much as possible. Thus, revitalising and reusing an existing building should, in principle, reduce its footprint on the environment.

This, though, is not as simple as it sounds. First of all, updating existing buildings to today’s standards is not always possible without sacrificing a considerable amount of their cultural value. Additionally, we tend to hold heritage projects to different standards, as a recognition of their significance. This trade-off could mean sacrificing energy efficiency in order to preserve an important element. Additionally, these alterations usually have a large price tag, disproportionate to the one of commissioning a new building. This leads to a major dilemma faced by -heritage- architects: do the benefits of revitalising an existing building overcome the costs (both in monetary and sustainability terms)?

This is one of the ethical issues that us, as future practitioners, will have to address on behalf of our society. This process is anything but easy or straightforward, as the issue at hand is a very personal one: how can the cultural values embedded in a structure be translated in other figures, in order to justify decisions like e.g. the increased monetary or environmental costs of revitalising an existing building? The answer is not, and can never be, universal. In my personal opinion, factors such as the rarity, age and cultural significance of a structure should be taken into account when deciding to what extent it is important for a society, and thus to determine how many resources (be it materials, manhours, energy, land, etc) a structure is worth. The desired treatment of the object can be then decided upon accordingly, ranging from a ‘do-not-touch’ approach for the most important buildings, to a possible demolition for the most insignificant buildings.

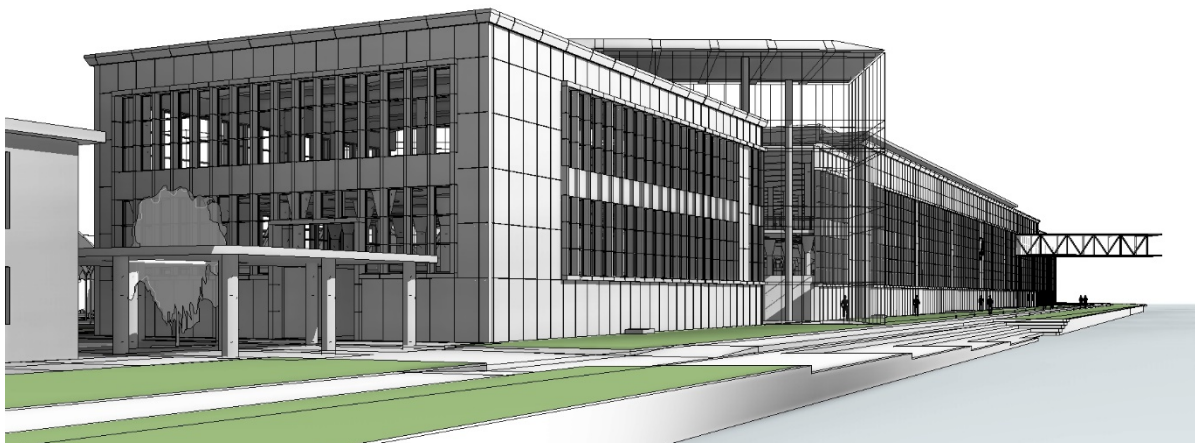
Regarding my graduation project’s architectural position, I stand by my initial observation that culturally significant buildings are exceptions to many rules, written or otherwise, in the interest of preserving their truly important character. In order to answer this question for G429, I will not take

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<sup>4</sup> Architect Magazine, [https://www.architectmagazine.com/aia-architect/aiperspective/existing-buildings-the-elephant-in-the-room\\_o](https://www.architectmagazine.com/aia-architect/aiperspective/existing-buildings-the-elephant-in-the-room_o) (2018)

into account that the building is a municipal monument, to allow full freedom for the sake of argument. While G429 is a relatively young building, it is of importance to the local community, and is a symbol of an era which is highly valued on a national level (accepting that the government reflects the people's will). Additionally, it is a large building which is still in pristine condition, with its structure not having completed its lifespan. These facts, combined with the rather easy solutions to bring it to an efficiency level comparable to today's standard, we can justify and propose its revitalisation. On the other hand, the building is not significant enough to justify its placement on a metaphorical podium as a work of art, which allows for a considerable amount of freedom and versatility, further justifying its preservation. It is thus my position on the field of heritage that, since the building should be preserved and fitted with a function that would allow it to continue its service without disproportionately burdening society, it should be granted a second lease on life; proposing the accommodation of a Military History Museum in Building 429 is not only fitting to its original function and context, but will also allow for the general public to experience its interior for the first time. This experience will be based on three legs: programmatic, physical and visual.

As briefly discussed in this reflection paper, there seldom is an absolute truth when it comes to the field of Heritage & Architecture. It is then the architect's responsibility to attain a deep and holistic understanding of the subject and its contexts before making any decisions. The large responsibility of weighing in all the relevant factors to determine an existing structure's fate also falls on the architect's shoulders, and should be addressed with the caution warranted by the gravity of this task. The case of Building 429 of Hembrug did not present big ethical questions or controversial challenges, so it can serve as a training exercise to test my personal position in a safe environment. It is my firm belief that the proposal of a Cold War Museum in Building 429 is a fitting approach to revitalise it and re-introduce it to a society which is just a few generations away from forgetting it.



## **Bibliography:**

**Cultural Heritage Agency of the Netherlands.** 2012. Heritage Management in the Netherlands. March 24. <https://culturalheritageagency.nl/en/modernising-heritage-management>.

**Deplazes, Andrea.** 2018. Constructing Architecture. A Handbook. Basel: Birkhäuser

**Elefante, Carl.** 2018. Architect Magazine. [https://www.architectmagazine.com/aia-architect/aiperspective/existing-buildings-the-elephant-in-the-room\\_o](https://www.architectmagazine.com/aia-architect/aiperspective/existing-buildings-the-elephant-in-the-room_o).

**Iliopoulos, Vasileios.** 2018. AR3AH110 - Analysis of Building 429.

**Kuipers, Marieke Cornelie, and Wessel de Jonge.** 2017. Designing from Heritage: Strategies for Conservation and Conversion. Delft: Delft University of Technology.

**Meurs, Paul.** 2016. Heritage-based Design. Delft: Delft University of Technology.

**Schittich, Christian.** 2003. Building in Existing Fabric. Basel: Birkhäuser

**UNESCO.** N.d. Old Bridge Area of the Old City of Mostar. <https://whc.unesco.org/en/list/946>

## **Illustrations:**

Cover and page 5: draft views of the proposed Cold War Museum. © Vasileios Iliopoulos