



UHasselt, Belgium  
Faculty of Arts and Architecture

Interior Architecture  
(Adaptive Reuse)

# COLOR STRATEGIES IN ADAPTIVE REUSE:

From Theory to Application  
in the Castle of Heers

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Master Thesis 24-25

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## Acknowledgments

Completing this master's thesis has been an enriching and challenging journey. It would not have been possible without the support and guidance of many exceptional individuals. Throughout this process, I have benefited immensely from the expertise, encouragement, and inspiration of my mentors, professors, friends, and family.

First and foremost, I would like to express my deepest gratitude to my mentor, Chris Bessemans. His continuous support and insightful feedback were invaluable. His dedication and guidance helped me overcome challenges and significantly improved the quality of my work.

I am also grateful to my Master's Project tutors, whose expertise and encouragement were essential to developing my concept. Their constructive advice enabled me to refine my project and the framework of my entire thesis.

Special thanks go to Professor Bie Plevoets, whose lectures provided me with a profound understanding of adaptive reuse. Her theoretical insights formed the backbone of my research, enabling me to refer back to a strong

conceptual framework throughout my project.

I would also like to acknowledge Professor Koenraad Van Cleempoel for his inspiring Genius Loci seminars. These sessions opened my eyes to the intangible elements of architecture, encouraging me to approach buildings from a fresh, nuanced perspective.

I am deeply thankful to Professor Saidja Heynickx for inspiring me to embrace creativity and experimentation in my work and pushing me beyond my comfort zone in her seminars on tactics.

Professor Els Hannes's unwavering support and positive energy had a lasting and uplifting impact on my motivation and progress, for which I am deeply thankful.

Finally, I would like to thank my family and friends for their constant moral support, which strengthened me during challenging moments. Lastly, my partner deserves special recognition for helping me refine the vocabulary of this thesis and ensuring clarity and precision in my writing.

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## Abstract

Color is an indispensable architectural element, shaping the atmosphere, perception, and even identity. Color has always had a crucial role in defining the purpose of a space, its emotional tone, and cultural symbolism, from ancient temples to modern-day interiors. In deeply deteriorated heritage contexts, color is frequently effaced or disregarded. This thesis places color at the front line, as a key narrative and design tool in adaptive reuse. It focuses on the shift from the original use and the reinterpretation, drawing parallels between the adaptive reuse of the space and that of the original color choices. It introduces three strategic approaches: 'Trace', 'Echo', and 'Fusion'. Each offers different intervention levels,

supported by numerous case studies. Finally, these strategies are applied at the Castle of Heers, a ruinous site in Belgium. The theoretical framework of the thesis manifests in this castle through on-site documentation and spatial experimentation. Each strategy is applied in different spaces, considering the memory these colors carry and the modern need and function of the space. How can the historical layers of color in heritage buildings be reinterpreted to balance cultural identity, material authenticity, and contemporary spatial experience? This research aims to provide a framework to improve the connection between the past and the present through culturally and colour sensorially aware design.



# Introduction

From shapes to structures, proportions, the connection between spaces, and human perception, these elements all give a building its identity. Among them, color is not more or less critical. It has always existed, either directly through raw materials or indirectly by the colors we choose to apply over them. We see it everywhere: on walls, floors, ceilings, doors, windows, structural elements, furniture, fabrics, and more.

However, the importance of color in designing spaces is sometimes overlooked. Profound deliberation about color in designing spaces can contribute to properly communicating a space's intended feeling or function.

Color has always been part of architecture. It dates back to ancient Greece and the Parthenon, known today as a pale, ruin-like structure. After losing its original function and being transformed through time, damaged, partially stolen, and turned into a museum, it still holds traces of its colorful past. On-site research has revealed this hidden history through tools like microscopic analysis, UV and infrared photography, and X-ray fluorescence (XRF). (Fig. 1) These studies proved that color communicated identity, function, status, and spiritual meaning.<sup>1</sup> It is hard to imagine the original effect of



Fig. 1 Color representation of the Parthenon according to current scientific data

this color because so much has changed. But that doesn't imply that we should completely change it or try to bring it back exactly as it was. Suppose a building like this were to be adaptively reused. In that case, its colors should be reinterpreted to suit its new function while maintaining its identity and meaning without losing its values and sense of belonging.

In archaeology, traces of paint can often survive in protected areas, under layers of dirt, plaster, or within interiors. This has been true for centuries and still is. With modern techniques, these colors are documented. That documentation becomes the first step in reintroducing them as a tribute to the building's history and identity. It helps us understand more about using specific colors in different circumstances and the memories attached to them. Respect for the original vision and the changes throughout a building's life in adaptive reuse are key elements that may define the success of a project. Modern needs and tastes have evolved, but they can definitely cohabitate and merge with our heritage. The stories old buildings tell through their present condition define them deeply, and great care is necessary to retell them as best as possible.

The key question is: How can the historical layers of color in heritage buildings be reinterpreted to balance cultural identity, material authenticity, and contemporary spatial experience?

## Three strategies

In this thesis, I explore the importance of colors in buildings, from new to historic ones. I dive into the ways they were once used to fit a specific use and how we adapt them to suit new ones. I look into detailed ways to trace them and what strategies fit different present-day circumstances. For this, I use various case studies, grouped into three strategies: 'Trace', 'Echo', and 'Fusion'. They shift gradually, from minimal interventions to major ones. The cases are very different from one another. They help me create a categorization that is as comprehensive as possible, which can also be used as a manual for future projects. For instance, following the case studies, I manifest these strategies into a historic site: the Castle of Heers. This castle is in a ruinous state, but the variety of deterioration in different spaces makes it an optimal site to see all the strategies come to life.

## Methodology

This thesis is divided into three main parts:

### PART I: Theoretical framework

This part reveals how color is a sensory and cultural construct essential for meaningful and context-aware design. We see an overview of the multifaceted role of color in architecture through the lens of emotional perception and historical preservation. We see the influence of color in the spatial atmosphere, cultural identity, and user experience, supported by various researchers. The importance of historical colors explained in the beginning brings us to tracing them, where we see the technical and scientific methods that help better interpret them.

### PART II: Strategies through case studies

This part introduces three strategies: 'Trace', 'Echo', and 'Fusion'. Each of them explains in the beginning what it means in the case of the adaptive reuse of color and in which circumstances it is better to apply it. Two to three case studies each follow these strategies, illustrating the corresponding strategy. Through them, we better understand the strategies' meaning and field of application.

### PART III: Strategies in the Castle of Heers

This part introduces the Castle of Heers, a ruin waiting to be reused. I explain the historical context and why this building's condition suits all the strategies. I analyse my visit there and how I documented its colors. Further, I have chosen three spaces to apply the abovementioned strategies. Each shows the condition of the spaces and what I came up with to make them functional again. It is an overview of my Master's Project.

1. Eleni Aggelakopoulou and Asterios Bakolas, "Investigating Polychromy on the Parthenon's West Metopes," *Archaeological and Anthropological Sciences* 16, no. 96 (2024): 1–17, <https://doi.org/10.1016/j.jas.2022.105553>.

# The role and documentation of color in architecture and heritage

## Color as a foundation of spatial experience

“Walls are [sic] the background of life since the beginning of humanity (as people started to live in caves); however, they have been varied throughout history, from very visually burdened styles to the very brutal style of Adolf Loos.”<sup>2</sup> One of the main components that defines them is color.

Color is a fundamental tool in shaping emotional perception, spatial function, and memory within architectural environments, not simply a visual enhancement of an interior. Studies on color in the architectural field help us better understand its sensory, psychological, and cultural significance.

The research article “Colour semantics in residential interior architecture on different interior types” shows how color shapes the users’ emotions and behaviours.<sup>2</sup> Authors Begüm Ulusoy, Nilgün Olguntürk, and Rengin Aslanoglu explored colour meaning in the context of residential interior types under controlled conditions using 42 Munsell colours varying in hues, value, and chroma levels, with 14 adjectives, such as “comfortable” or “pleasant”. The responses they trigger reinforce the idea that color is atmospheric and behavioural. They contribute to the legibility and use of space and serve as a communication tool.

Various researchers support this theoretical framework in this paper. For instance, Smith demonstrates that users judge the function of the interior spaces according to the atmospheres created by designers, and one of the dominant factors that creates an atmosphere is colour.<sup>3</sup> A critical tool that helps designers understand this notion is looking into the psychological effects linked to various hues. Lee, for example, observed that, “red induces feelings of excitement, tension, unpleasantness, anxiety, anger and warmth; green evokes feelings of comfort and stability; blue induces feelings of

comfort, stability and coolness; and yellow evokes feelings of warmth.”<sup>4</sup> These associations are not universal but suggest broadly recognisable patterns designers can strategically utilise.

To go into more detail and understand the exact associations that color might have in various circumstances, we should recognise its relationship with memory. For instance, researchers define the role of memory in the perception of colors and how important it is to help us understand our different associations for each color. They might change according to the place and time, so to understand the ‘why’, recollection of memories is suggested. Hutchings et al. provided a theoretical framework for the study by indicating that “expectations arise as a result of our interpretation of the perceived product or scene, and most of our understanding of the scene arises from our visually perceived properties of the scene.” They further noted that walls are a design component of interiors through their colors, and users interpret these components based on their knowledge and experiences.<sup>5</sup> This knowledge helps understand color, also based on the spaces they have inhabited before, making it an interpretative act.

Kaya and Crosby support this by demonstrating that color associations are shaped by past encounters<sup>6</sup>; while Lupton asserted that meaning and associations are created through experiences. Therefore, to collect color associations and meanings, participants need to recall their memories and engage with their knowledge.<sup>7</sup> These ideas reinforce the argument that color is a dynamic phenomenon that gains meaning through memory, culture, and personal history.

This paper portrays color as an active participant in shaping how people interpret, feel, and interact in a space. As a result, this complex tool can be used by architects and designers as a strategy, rather than just a surface.



The emotional and cultural impact of color

While memory and perception determine how color is received in a space, emotional and cultural aspects contribute to how color is remembered, valued, and given meaning. These deeper associations weave personal and collective identity into color. Masoumeh Khanzadeh's study examines the multifaceted impact of color in interior design, highlighting how thoughtful color choices imbue a space with cultural and emotional resonance.<sup>8</sup> His research underlines how color is chosen through personal histories, cultural expectations, and collective experiences. As Khanzadeh notes, "Examining the color choices of professionals provides insightful information on how their varied backgrounds and life experiences influence their aesthetic preferences. Designers may produce settings that appeal to a variety of user groups, considering different cultures and interests, thanks to this understanding." This way, he reinforces that emotional and cultural impact result from intentional design decisions rooted in research and empathy. He suggests that designers create visually attractive, emotionally resonant, and culturally significant places by considering client preferences, cultural context, psychological effects, and sustainability. To support this approach, he concludes with a table of recommendations, of which the most remarkable and relevant are:

- 1. Understanding client preferences and goals, while engaging in detailed discussions with the clients and aligning with their emotional expectations and desired atmospheres.
- 2. Conducting cultural and historical research to incorporate the project context with the appropriate colors that resonate with it.
- 3. Integrating modern and traditional elements to create timeless designs that appeal to a broad audience while honoring cultural heritage.
- 4. Highlighting key design features to create focal points that enhance the spatial experience."

Khanzadeh's research defines color

as a means of emotional and cultural communication. By considering client/user preferences, cultural context, and the psychological effect of color, designers can create appealing and deeply resonant spaces. Color's inherited meanings through memory, history, and identity must be respected and reinterpreted in every new context. This approach allows designers to create inclusive, meaningful, and emotionally enduring environments.

2. Begüm Ulusoy, Nilgün Olguntürk, and Rengin Aslanoğlu, "Colour Semantics in Residential Interior Architecture on Different Interior Types," *Color Research & Application* 45, no. 5 (2020): 943, referencing Adolf Loos, "The Principle of Cladding," in *Spoken into the Void: Collected Essays 1897–1900*, trans. Jane O. Newman and John H. Smith (Cambridge, MA: MIT Press, 1982), 66–69.

3. D. Smith, *Architectural Experience: A Composition of Viewpoints* [PhD diss., Queensland University of Technology, 2000], quoted in Begüm Ulusoy, Nilgün Olguntürk, and Rengin Aslanoğlu, "Colour Semantics in Residential Interior Architecture on Different Interior Types," *Color Research & Application* 45, no. 5 (2020): 946, <https://doi.org/10.1002/col.22519>

4. H. Lee, J. Park, and J. Lee, as cited in Begüm Ulusoy, Nilgün Olguntürk, and Rengin Aslanoğlu, "Colour Semantics in Residential Interior Architecture on Different Interior Types," *Color Research & Application* 45, no. 5 (2020): 943, <https://doi.org/10.1002/col.22519>.

5. J. B. Hutchings, L. C. Ou, and Ronnier L. M., as cited in Begüm Ulusoy, Nilgün Olguntürk, and Rengin Aslanoğlu, "Colour Semantics in Residential Interior Architecture on Different Interior Types," *Color Research & Application* 45, no. 5 (2020): 942.

6. N. Kaya and M. Crosby, as cited in Ulusoy, Olguntürk, and Aslanoğlu, "Colour Semantics in Residential Interior Architecture," 943.

7. E. Lupton, as cited in Ulusoy, Olguntürk, and Aslanoğlu, "Colour Semantics in Residential Interior Architecture," 943.

8. Masoumeh Khanzadeh, "Beyond Aesthetics: Emotion, Atmosphere, and Cultural References through Color in Interior Architecture," *Jass Studies—The Journal of Academic Social Science Studies* 17, no. 101 (Autumn 2024): 52, 61, <https://doi.org/10.29228/JASSS.77266>.

The architectural application of colors and their historical context

Color's emotional, cultural, and perceptual impact only reaches its full potential when applied in architectural practice. Color in this way is integrated into the logic and language of architecture. In this thesis, this is revealed through various researchers, as well as an artist.

In the research paper 'Three Color Strategies in Architectural Composition' by Juan Serra, we see several strategies that show how color informs architectural practices and identity over time. Juan and his team's classification takes into account the findings of Swedish architect Karin Fridell Anter, who describes six different reasons (though not exclusive) behind the use of color in architecture, apart from those of durability of materials: illusion, allusion, pictures carrying codes, decoration, spatial use of color, and functional coloring. They emphasize the contribution of color in how architecture is interpreted and engaged with, apart from how it's seen. This system includes three main groups of color strategies: (1), color influences the perception of the visual properties of architectural shapes; (2) color describes the building, and (3) color is arranged for its intrinsic value. These strategies frame color as an architectural instrument that shapes the form and meaning of a building. They conclude by saying: "Color is useful as a strategy to easily fulfill a number of architectural requirements. Color should never be reduced to just a syntactic understanding, as it is a much more totalizing and inherently significant matter,"<sup>9</sup> reinforcing once again the idea that color functions as a structural element within architecture and an active participant in the creation of a space, rather than an aesthetic final touch.

The work of Jean Glibert, a Belgian painter, is a good manifestation of this theoretical framework. He worked with architects on the built environment for over 50 years and transformed numerous public spaces through color, making everyday actions less mundane. His work proves that color can transform ordinary public

infrastructure into visual engagement and social interaction sites. Crossing a playground, taking a staircase, waiting for a subway, sitting in an auditorium, crossing railway tracks, driving a car, walking along a sidewalk, or sitting on a bench awakens through the presence of color, presented through different shapes and patterns. He considered painting a collective good and greatly contributed to shifting the lines by reducing the distance between an artist's work and the building trades.<sup>10</sup> One of his most significant contributions is the transformation of the Merode Metro Station, for which he covered the platform wall with a unique mosaic, containing five different colors knitted in impressive geometric patterns (Fig. 2, 3).<sup>11</sup> Glibert's work illustrates the relevance of color in mundane spaces and how color imbues these spaces with notable character, as a mediator between functionality and aesthetics.

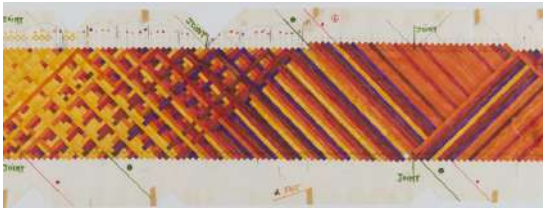


Fig. 2 Merode Metro Station pattern drawing by Jean Glibert



Fig. 3 Merode Metro Station mosaic

9. Juan Serra, "Three Color Strategies in Architectural Composition," *Color Research and Application* 38, no. 4 (2013): 238–250, <https://onlinelibrary.wiley.com/doi/10.1002/col.21717>.

10. Jean Glibert, Jean Glibert – Site officiel, accessed July 24, 2025, <http://www.jeanglibert.com/>

11. Jean Glibert, Station de Métro Mérode, 1976, accessed July 24, 2025 <http://www.jeanglibert.com/index.php?/1976/station-de-metro-merode-/2/>



While newly constructed environments allow for considerable freedom in the application of color, existing historic buildings present various layered challenges. The history of a building and the memory it holds through colors is an additional element of no minor importance in how colors are used. Historical layers inform about the life of the building in different periods, which is an added value that adaptive reuse and restoration should treat with great care, to provide a well-informed and decent continuity.

In discussing how historic interiors illustrate the passage of time, Tucker writes: “In the case of historic buildings, the interior of a structure will likely change significantly over time. Layers of surfaces and resurfacing continuously change the historic interior space to reflect its social history.”<sup>12</sup> These layers, including those of colors, serve as visual records of evolving societal tastes, uses, and values. Tucker emphasizes the responsibility of designers to balance contemporary needs with sensitivity to past alterations. “How all of this is preserved, restored, adapted, or otherwise interpreted is at the core of what an interior designer does. As such, it is important that the designer’s work not only reflects the new uses and occupants of a historic interior but, at the same time, honors the changes in taste and social mores that have occurred over time.” Thus, color is used to shape the present while interpreting and respecting the past. As new changes are made and old facets resurface, an ebb and flow of design choices emerges. It is the duty of the architect to conduct the process with respect to the cultural significance of the space, as well as to new needs that spring forward with societal changes.

This theoretical framework; from shaping perception and atmosphere, to expressing cultural identity and emotional resonance, to informing spatial strategy and material application, reveals the multifaceted role of color in architectural design. Color is a powerful design tool that connects

the past with the present, as well as the individual and collective experience. Memory, context, and historical layers shape its overall meaning. Thus, further research on the historical context helps us create new, meaningful spaces that honor the past while adapting it to its present users. The genesis of this research is tracing the historical colors, which ensures that design remains rooted in lived experience, while also speaking meaningfully to contemporary users.

12. Lisa Tucker, “The Relationship between Historic Preservation and Sustainability in Interior Design,” in *The Handbook of Interior Design*, ed. Jo Ann Asher Thompson and Nancy H. Blossom (Chichester, UK: John Wiley & Sons, 2015), 383.

Documentation of color in heritage contexts

The technical measurement and specification of color is a key aspect for proper archaeological documentation.<sup>13</sup> It is a crucial step that requires not only photographic documentation but also the use of advanced techniques to be as accurate as possible.

The paper “Correct Use of Color for Cultural Heritage Documentation” by Molada-Tebar, A., Á. Marqués-Mateu and J.L. Lerma highlight the importance of color tracing. They suggest that “the correct color definition allows a more comprehensive graphic definition, a better understanding of the scene, and provides relevant technical information, especially for research and preservation tasks.” In this paper, despite technical advancements, we understand the challenge of accurately determining color in heritage. While traditional methods such as the Munsell charts, rely on subjective observations, advanced techniques such as colorimetry or digital imaging lack precision. They go on to suggest alternative methods, such as polynomial regression and the CIE tristimulus-based camera, which offer sufficiently accurate solutions for cultural heritage and scientific use.<sup>13</sup>

Therefore, accuracy in tracing color is a fundamental part of preserving the historical integrity of a site. It deepens our understanding of the original appearance and contributes to a more informed conservation effort.

13. Molada-Tebar, A., Á. Marqués-Mateu, and J.L. Lerma, “Correct Use of Color for Cultural Heritage Documentation,” *The International Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences IV-2/W6* (2019): 107–114, <https://doi.org/10.5194/isprs-annals-IV-2-W6-107-2019>.

## Adaptive reuse of found colors: experimental strategies and supporting case studies

In this part, I am going through several case studies that deal with the adaptive reuse of found colors. Every case is different, with many other factors affecting how architects have worked on each space.

A lot of inspiration regarding how I categorize them came from the 'As Found: Experiments in Preservation' book, which identifies seven experimental approaches to intervening in existing buildings and spaces. In this book, these approaches consider every tangible or intangible element and give a complete picture of these reused spaces.<sup>14</sup> This book supports each experimental approach with a corresponding case study, analysing thoroughly the factors that make it a proof of this approach. These approaches focus on the overall preservation transformation. Inspired by this process of extracting strategies from concrete examples, instead of basing them on set theory, I studied how each case study

approached color, creating, in this way, after a long process of trying different numbers and definitions, three groupings that derive from the patterns I observed. These strategies are followed by a number of case studies, and are arranged in order of radicality in approach: 'Trace', 'Echo', and 'Fusion', which gradually transition from one another. They represent different ways of reusing the existing colors, which I later applied around the Castle of Heers.

They start from 'Trace', which deals with the spaces that are the most well preserved, to 'Echo', which deals with spaces that still have a lot of layers of colors but that need major interventions to be functional again, and 'Fusion', which tackles the most damaged spaces, where the only traces left are those of primary building materials. Those interventions range from subtle to distinct but never merge with the existing. Instead of restoration, I suggest adaptation.

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14. Sofie De Caigny, Hülya Ertas, and Bie Plevoets, eds., AS FOUND: Experiments in Preservation (Antwerp: Flanders Architecture Institute, 2023).

2.1 Trace

*(n.) a surviving mark, sign, or evidence of the former existence, influence, or action of some agent or event*<sup>15</sup>

‘Trace’ refers to the minimal types of interventions that embrace the existing layered condition of the space and only intervene where necessary, to make the space functional again and not change the overall aesthetic of the space. Those interventions are very subtle; their only purpose is to bring back the functionality of the space without restoring it, but altering the damage.

‘Traces’ is one of the approaches explored in the book ‘As Found: Experiments in Preservation’ by the Flanders Architecture Institute (VAi). It explains that traces and scars visible in architecture can help read the history of a building. It suggests that we can choose to let the different historical layers coexist and overlap, engaging in dialogue with each other, instead of erasing them through restoration. According to Koenraad Van Cleempoel, these traces can be used as a source for a new intervention, offering various possibilities for designers to draw and make this process an essential skill for future architects.<sup>16</sup>

Drawing inspiration from this strategy in the book, ‘Trace’, in this thesis, is derived into one specific element, color, highly resembling the philosophy of the one in the ‘As Found’ book, and building upon it. Traces of color can also dictate parts of a building’s history and inspire new interventions. Among other elements, they contribute to a building’s identity and therefore can remain part of the present when possible. ‘Trace’ suggests that the different historical colors built over each other are left exposed, and every intervention is very carefully thought out, seamless, and has one purpose: to enhance what was found by making it practical for future users. The aesthetic and artistic sensibilities of times past are laid bare, and they are prominent participants in the new contemporary dialogue.

To better understand this strategy, an analysis of three case studies takes place:

Case studies:

- 2.1.1. Palais de Tokyo Expansion
- 2.1.2. Het Predikheren
- 2.1.3. Battersea Arts Centre

15. An Etymological Dictionary of Astronomy and Astrophysics - English-French-Persian. <https://dictionary.obspm.fr/index.php/?showAll=1&formSearchTextfield=trace>  
16. Sofie De Caigny, Hülya Ertas, and Bie Plevoets, eds., AS FOUND: Experiments in Preservation (Antwerp: Flanders Architecture Institute, 2023), 8-9.

2.1.1 Palais de Tokyo Expansion

Lacaton & Vassal  
Paris, France

17. Didelon, V. (2008). Doing without architecture: Reflections on the renovation of the Palais de Tokyo. In Looking at European architecture: A critical view (pp. 182–192). Brussels: Civa, <https://www.researchgate.net/publication/272814725>.  
18. Bie Plevoets and Koenraad Van Cleempoel, Adaptive Reuse of the Built Heritage: Concepts and Cases of an Emerging Discipline (New York: Routledge, 2019), 145–150.

Fig. 4 Palais de Tokyo ‘revealed’ hall



“A desire to look like nothing in particular is, in fact, a desire to look like something. Nothing here was left to chance, and it is the way in which the make-shift nature of the place is skillfully maintained that reveals the sophistication of the new version of the Palais de Tokyo [...] the ‘trash’ architecture [...] allows this institution to appear not to be one at all. Indeed, it seems that with the new Palais de Tokyo, what we have is an aesthetic representation of a construction site and of destitution.”<sup>17</sup>

The Palais de Tokyo is in the west wing of a neoclassical building from 1937 along the Seine in Paris, designed by Jean-Claude Dondel and André Aubert. In the book “Adaptive Reuse of the Built Heritage”, by Bie Plevoets and Koenraad Van Kleempoel, this building is described as originally part of the Palais des Musées d’art modern, with four-story wings that are joined by a colonnade and a central square.<sup>18</sup> The German government took over the basement during World War II, and the art collection was moved. The west wing reopened in 1947, but the collection moved to the Centre Pompidou in 1977. After several uses as a museum and cultural center, it was abandoned in 1998. Since 2002, the west wing has served as the Palais de Tokyo contemporary art center, named after its original street location.

Plevoets and Kleempoel explain that Lacaton & Vassal were commissioned to renovate the Palais de Tokyo for its new role as a contemporary art center. Much of the concrete structure was exposed since the interior had already been stripped and partially demolished for an earlier, unrealized cinema project. Rather than making significant changes, the architects decided to retain the building’s rough character and intervene only where necessary to meet public regulations, a choice shaped by both aesthetic appreciation and budget constraints.

They go on to describe the result, which is a building with a fascinating contrast between the exterior and the interior. When approaching it from the outside, its monumentality and decoration strike you. The opposite thing happens inside:

as soon as you enter the building, you face a gigantic open space, rough in its materiality and with signs of history everywhere, overall resembling a construction site.

By stripping back the interior of the building to its basic, rough concrete structure, as described in the book, Lacaton & Vassal created large, open spaces filled with daylight and open vistas throughout the building. Moreover, they improved the vertical circulation, opened up the roof to let even more daylight enter the space, and limited the necessity for artificial lighting. The space is open horizontally and vertically, with additions made out of construction materials. (Fig. 4)

Other than material traces, this same strategy is applied to its colored walls. We notice faded paint on the lower levels, where these walls and beams had contact with their past users, and chipped paint all over the place. The architects decided not to cover them with fresh paint but maintained what they found. The colors are faded and soft, but heavy in history and harmony with the surroundings. They dictate subtly what this building used to look like at a specific point in history. They aren’t overthrown by new additions, which are presented in elementary construction materials only where needed. (Fig. 5)



Fig. 5 Untouched traces of paint



### 2.1.2 Het Predikheren

Korteknie Stuhlmacher Architects, Callebaut Architects, Bureau Bouwtechniek  
Mechelen, Belgium

19. Kristien Bonneure, "Maak kennis met Het Predikheren in Mechelen: van barok klooster en strenge kazerne tot bibliotheek met een ziel". VRT NWS. Published August 31 2019 <https://www.vrt.be/vrtnws/nl/2019/08/29/maak-kennis-met-het-predikheren-in-mechelen-van-klooster-en-kaz/>

Fig. 6 Transformation of a corridor, where layers of paint are visible



Construction of Het Predikheren began in 1654, and it was intended as a Baroque monastery for Dominican friars displaced from the Calvinist Netherlands. As Kristien Bonneure describes in the article “Get to know Het Predikheren in Mechelen: from baroque monastery and austere barracks to a library with a soul”, Mechelen became a significant training center for these missionaries, and by 1720, the Dominicans had raised enough money to add a church to the site.<sup>19</sup> The French Revolution brought dramatic change: the church was deconsecrated, and the Dominicans expelled. In the early 19th century, the building was briefly used as a shelter for people experiencing poverty before being turned into a military hospital and arsenal. The article adds that after World War I, it became known as Kazerne Delobbe, serving as military housing until 1977.

From the mid-1970s, the former monastery stood empty. Architect Mechthild Stuhlmacher recalled visiting in 2011 and finding nature reclaiming the building, which had somehow escaped insensitive redevelopment. Although designated a protected monument in 1980, it wasn’t until 2010 that Mechelen decided to transform it into the city library. Korteknie Stuhlmacher Architects, together with Callebaut Architects and Bureau Bouwtechniek, took on the project. Bonneure goes on to add input from architect Mechthild Stuhlmacher, one of the leading voices of this restoration, who expresses the philosophy the team followed and overall how she viewed this process, from the beginning. “Time had stood still here and was a great equalizer: the beauty of decay. You could find it beautiful or terrible, there was no in-between. I had the idea that many people in the city also found it painful that they had let it get this far.” Stuhlmacher says: “Every purpose in Het Predikheren’s turbulent history has left its mark and scars. As designers, we found that particularly special. The sense of decay has enormous charm and shapes the character and soul of this building. That feeling is very fragile- often, that sensation only occurs on a first visit - but we wanted to preserve that feeling.” “What falls off naturally can be discarded.

What requires force, you leave,” was the instruction to the restorers. The colored layers of paint and plaster are “fantastic anonymous works of art, without intention, simply a product of time,” says Mechthild Stuhlmacher.

On December 5th, 2024, during a school trip, I had the honor to visit this exceptional building and hear in person what architect Mechthild had to say during an open lecture. One of the highlights that stood out to me was the part where she talked about the additions. They were, of course, inserted, but in a very subtle way, mainly using a light-shaded wood that covers the walls on a human scale height. (Fig. 6) Everything else above that level is left as found. Even lighting is very minimal and subtle. Floors left as found and modified to create a more comfortable stepping surface by cutting the existing cobblestone in half and flipping it on the more even side. Many gravestones found on the site were put on the floor, and people can now step on them. Every single detail is very well thought out and successfully manages to enhance the numerous historical phases this building has gone through. Some arches, narrowed down during their military phase, were left as found. This shows the intention of the architects to respect every phase this building went through as much as possible, without the intention to bring it back to its original form. (Fig. 7) We see this also on the various layers of paint mentioned above. No layer is more important than the other; each one of them contributed to what we see today and deserves to be celebrated equally.



Fig. 7 Part of the library, showing the interaction between the existing and the additions

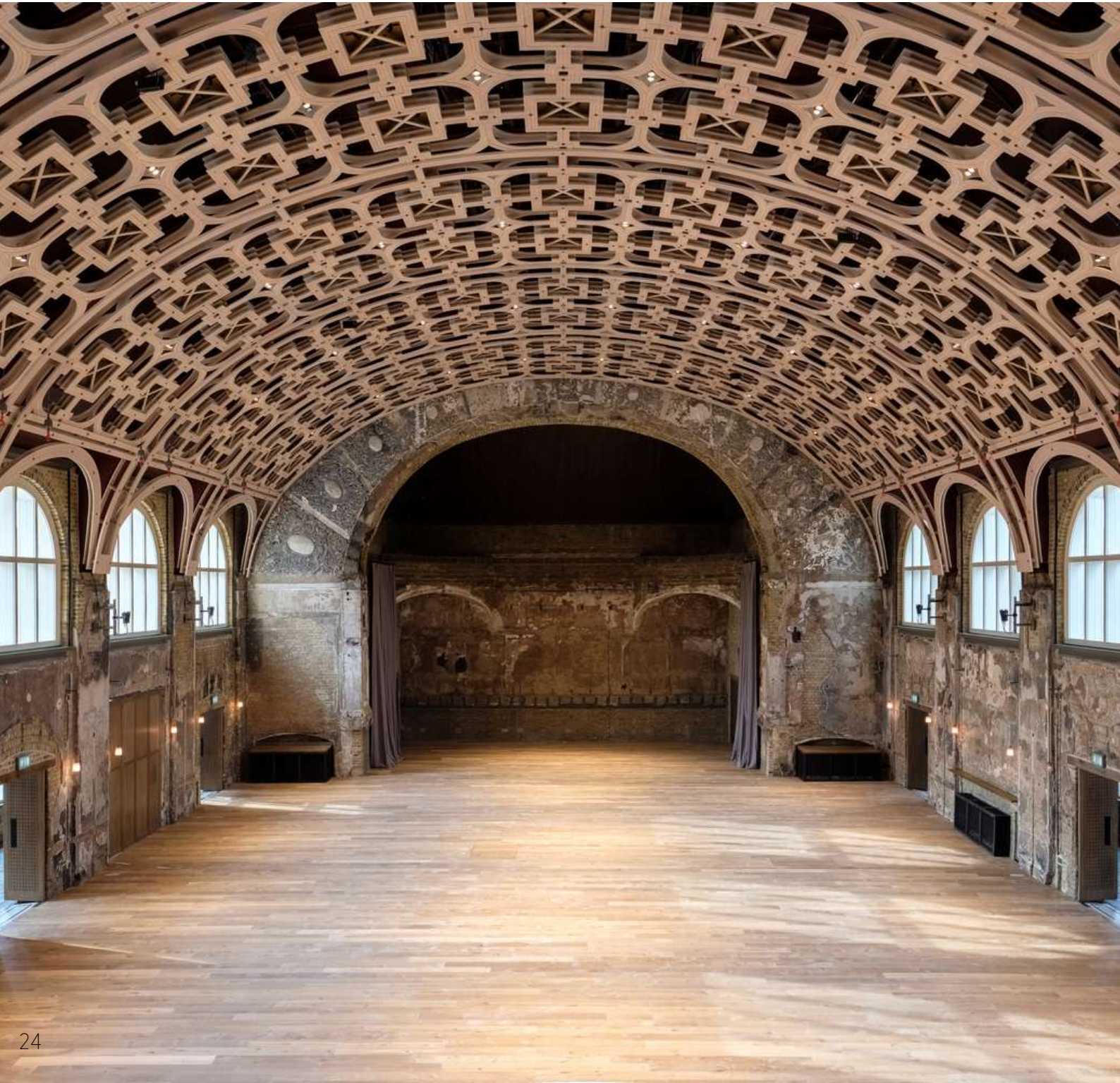


2.1.3 Battersea Arts Centre

Haworth Tompkins  
London, UK

20. "Battersea Arts Centre / Haworth Tompkins" 22 Jan 2021. ArchDaily. Accessed 21 Jul 2025. <https://www.archdaily.com/910491/battersea-arts-centre-haworth-tompkins> ISSN 0719-8884

Fig. 8 Transformation of the main hall, including the ceiling



Battersea Arts Centre, as described in the article “Battersea Arts Centre / Haworth Tompkins” by ArchDaily, is a former town hall building transformed into spaces for creative and community activities.<sup>20</sup> It dates back to 1892, but now, after a 12-year-long transformation by architects Haworth Tompkins, it houses 35 performance spaces, artists’ bedrooms, a new rooftop office and staff garden, a creative business hub, a community allotment, and an outdoor theatre, on a 3800 m<sup>2</sup> surface. The article describes that in 2015, during its transformation process, a devastating fire destroyed the famous Grand Hall, which is now re-imagined as a 21st-century performance space, allowing the organization to host bigger productions, community celebrations, and revenue-generating events. Traces of the fire are visible on the unrestored walls of the hall, as well as on the timber lattice ceiling, which borrows the decorative pattern of the original plaster vault, but turns it into an impressive 3D work of art, contributing also to the improvement of technical and acoustic possibilities.

This main hall is the primary focus, where we can see the first strategy. The architects were so careful in deciding what to keep and what to change. The first thing that captures the attention is the ceiling. In fig. 8, we can see its original plaster pattern, which the fire unfortunately wiped out. To recreate its former beauty, the architects modified it into a complex timber lattice 3D pattern, optimal for better acoustics. The pattern and shape of it are the only elements that come back, leaving behind the color and keeping the wood shade. It seems intentional and wants to stand out as an addition and not be precisely restored. It supports the idea of ‘Trace’, which suggests bringing back historical elements, not imitating, but standing out as new ones. The colors exist only in their ‘ruined’ condition, on the walls, where we can see layers and layers of paint, built up over a century. Here, the functionality of the new space wasn’t threatened, so it was suitable to leave this layer as found. The floor is restored, bringing back the same parquet layer. These relatively small changes give this

space back to the public, not as a restored version of the past, and also not as a completely new space that shows no sign of a past life, but as a beautifully balanced space, functional and respectful to its past, including the disasters.



Fig. 9 Almost untouched corridor, with new ceiling and doors



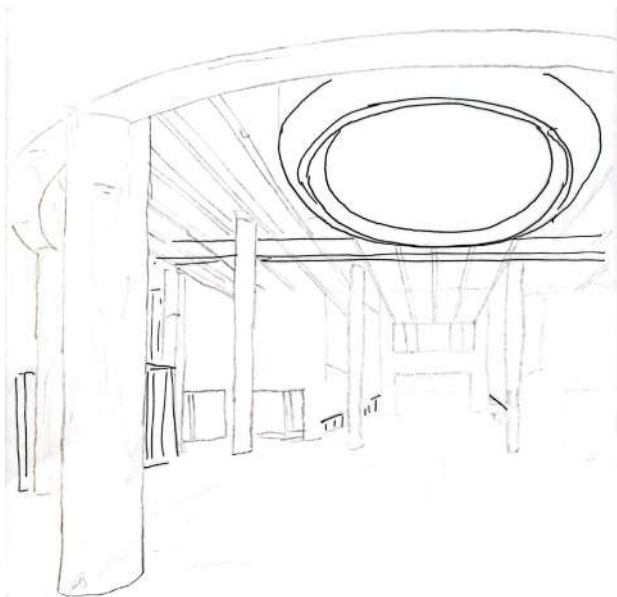


Fig. 10 Analysis on tracing paper of Palais de Tokyo (own work)

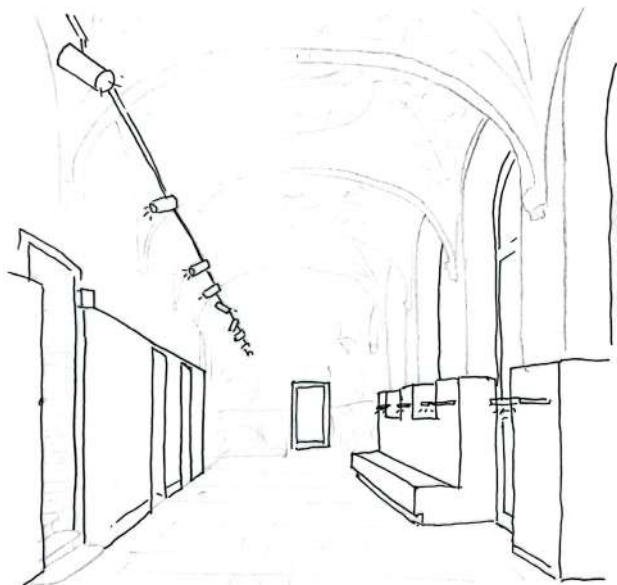


Fig. 11 Analysis on tracing paper of Het Predikheren (own work)

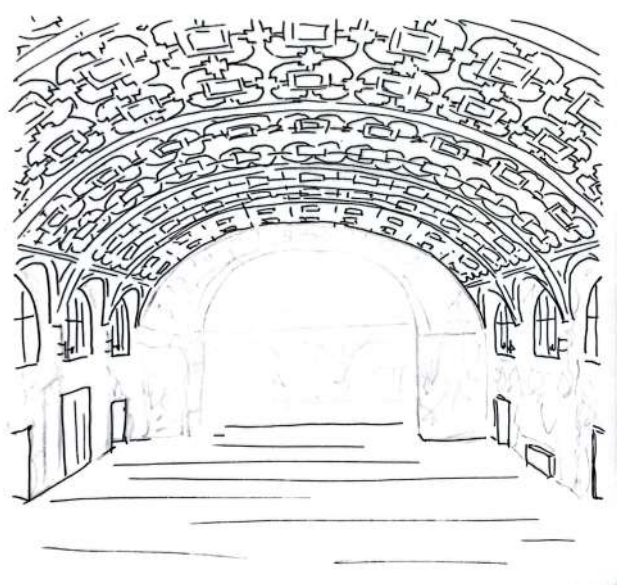


Fig. 12 Analysis on tracing paper of Battersea Arts Centre (own work)

### 2.1.4 Reflections on ‘Trace’

‘Trace’, which implies minimal and necessary interventions that embrace the existing layers of colors instead of erasing them, is distinctly visible across the Palais de Tokyo, Het Predikheren, and Battersea Arts Centre. Each project values colors as historical documents, allowing them to become witnesses of time by revealing them. As Tucker suggests, the layers of historic interiors are visual records of evolving societal values, and it’s the designer’s responsibility to honor them while adapting to new needs.<sup>1</sup>

Palais de Tokyo (Fig. 10) narrates its previous life by preserving the faded pastel tones and chipped paint on walls and beams, which become today’s compositional elements, alongside the other traces. Similarly, Het Predikheren (Fig. 11) treats layers of color as found

artworks, left intact above human height and untouched by the new muted additions. Color is beautifully uncovered as an attempt to even the surface. It is left in its aged condition, testifying to all of its past lives and not idealising its former untouched state. Battersea Arts Centre (Fig. 12) preserves its colors through the fire-scarred walls and allows other interventions to occur silently. The timber ceiling recalls without replicating its former pattern through a muted tone, also reflected on the floor, acknowledging the passage of time while adjusting to its needs.

Color in these three projects acts as a carrier of memory rather than a nostalgic reference, offering spatial continuity through its multi-layered presence.

2.2 Echo

*(n.) the reflection of sound or other radiation by a reflecting medium, especially a solid object*<sup>21</sup>

‘Echo’ suggests the reflection of the found colors through added parts, creating a mixture of the found and the addition, almost rearranging found pieces into new, functional interiors. Found colors echo everywhere, reminding us of the space’s history in a contemporary way. This strategy builds upon ‘Trace’, but dares to add. Additions are also very functional here, but colors appear through them, found colors that echo in these new spaces.

This type of intervention appears in spaces where traces of time are visible and spread everywhere, but noticeable damages make these spaces hard to use. Adjustments are more than needed. They could be new floors, beams, windows, or doors. Where these new elements are presented, they come with color, a color taken from the site, that can change the perception of the space, while keeping

the same general atmosphere. It is like creating a collage, where pieces from the same source are detached and put together again differently. There is no correct way to do it. The possibilities are infinite, and it is the architect’s responsibility to rearrange them respectfully, which also serves a purpose to its future users.

To better understand this strategy, an analysis of three case studies takes place:

Case studies:

- 2.2.1. Famous
- 2.2.2. KANAL –Centre Pompidou
- 2.2.3. Temporary Gallery in Shichengzi Village

21. 1. ECHO Definition & Meaning | Dictionary.com. <https://www.dictionary.com/browse/echo>



2.2.1 Famous

Jo Taillieu architecten  
Groot Bijgaarden, Belgium

22. Gideon Boie, "The Gay Architecture: On the 'Famous' project by aDVVT". BAVO. Published 2017, <https://www.bavo.biz/the-gay-architecture-on-the-famous-project-by-advvt>

Fig. 13 Reflection of revealed color from the ceiling to the panel and door frame



The Priory of the Abbey of Groot-Bijgaarden became an office space for the advertising agency Famous. Gideon Boie, in the article "The Gay Architecture: On the 'Famous' project by aDVVT", describes that Jo Taillieu architecten left the exterior untouched, preserving its impressive Rococo-style façade, while the interior underwent significant, spectacular changes.<sup>22</sup> Bright colors and light playfully took over the corridors. The architects opened the study rooms and replaced the corridor wall with sliding doors to create transparency between the workspaces and the people passing by. Traces of demolition are intentionally visible on the head ends of the walls. They added numerous steel beams for stability and painted them in different colors. While removing the suspended ceilings, they discovered old remnants of paint and wallpaper, and decided to let them exist as they found them. (Fig. 13) The sliding doors close one door while opening the adjacent one. They removed the door panels, reinforcing the enfilade of spaces. Boie reflects that adhocism guides this project everywhere, such as in the contemporary chandeliers, formed by fluorescent lighting, folding tables as workspaces in the attic, and even a greenhouse as a print room beneath the wooden timbers.

Colors play an essential role in the identity of this project. As mentioned above, many layers were uncovered or left as found, giving the building's history continuity through them. Numerous pastel colors were washing the walls everywhere, creating a unique character full of memories. The architects' decision to preserve them, followed by their reflection on new elements, created an even more distinctive interior. Multiple structural alterations occur in this project, but by continuously looking back. The colors come back mainly in steel beams and door frames. Although they are spread everywhere around the office, the highlight of this project is in the main corridor, where all the colors come together, in a series of different-colored beams. (Fig. 14) Their echoing extends beyond the rooms and celebrates this essential element in this very crowded space.



Fig. 14 Reflection of all found colors on the main corridor



2.2.2 KANAL-Centre Pompidou

Atelier KANAL  
Brussels, Belgium

23. Centre Pompidou, KANAL-Centre Pompidou, accessed June 26, 2025 <https://www.centrepompidou.fr/en/the-centre-pompidou/international/kanal-centre-pompidou>  
24. Kanal Architects representative, Centre Pompidou site visit, Brussels, April 2, 2025.

Fig. 15 Reflection of documented colors on the new structure



Centre Pompidou, Brussels-Capital Region, and the KANAL Foundation formed a ten-year partnership and created the “KANAL-Centre Pompidou” in the former Citroën garage at Place de l’Yser in Brussels. The main website of this centre, “Centre Pompidou”, describes it as a cultural centre that seeks to be a dynamic hub for many artistic disciplines and a key site for revitalizing this part of Brussels.<sup>23</sup> The Centre Pompidou will contribute works from its renowned collection for a permanent exhibition and two annual shows curated by the Musée national d’art moderne. It will also assist with acquiring new works and offer expertise in programming, production, architecture, and public engagement. The website adds that the work began in 2019 with a team of architects from noArchitecten, EM2N, and Sergison Bates. During this process, the site is open to the public to allow them to experience the building’s original architectural heritage. Various exhibitions and performances are also welcome.

During a site visit on the 2nd of April 2025, my class had the opportunity to have an in-person explanation of its restoration process. This presentation mentioned the colors, so I asked for more details. A KANAL Architects representative started by saying they found plenty of colors and documented them in their book “Kanal: THINKING”, which we browsed. They saw colors on walls, balustrades, floors, etc. With this very detailed documentation and various colors, they created color palettes and grouped similar colors. Documentation was challenging as many of the found colors, especially where car smoke was present during the years, were transformed. They were between the decisions of documenting them as seen or cleaning them. In a few cases, they kept the original version to honor the building’s past.

Their goal is to create a very flexible space for artists regarding colors. Since they found so many layers, they decided to let the layering happen in the future. They didn’t want to create a rigorous, clean space that artists couldn’t touch, but wanted them to feel free to accommodate

it to their visions. Therefore, artists can do that if an exhibition requires a repainted wall. Unfortunately, the found colors were contaminated, and keeping them could cause harm to the new users of the space. This is why they decided first to document them and then remove them. This way, they have a big archive of what they initially found and plenty of materials to work with. Since it will be mainly exhibition and flexible spaces, they decided to reapply the found colors minimally in different parts. For instance, in Fig. 15;16, we can see that they painted the roof structure green. What is interesting to mention is that different green-painted elements have various shades of the same color, all taken from the catalog of the original colors. This way, the architects pay tribute to the found but lost color heritage.<sup>24</sup>

This site visit helped me understand the importance of precise documentation and the challenges that might change the project’s trajectory. As much as preserving the found layers might seem ideal, knowing how to work with the fact that you can’t always do that might lead to even more interesting solutions.



Fig. 16 Reflection of documented colors on new structural elements



### 2.2.3 Temporary Gallery in Shichengzi Village

Fuyingbin Studio  
Shichengzi Village, China

25. "Temporary Gallery in Shichengzi Village / Fuyingbin Studio" 09 Oct 2019. ArchDaily. Accessed 16 Jul 2025. <https://www.archdaily.com/926050/temporary-gallery-in-shichengzi-village-fuyingbin-studio> ISSN 0719-8884

Fig. 17 Reflection of color on the scaffolding structure



This temporary gallery took place in the village of Shichengzi in Qinlong County, Hebei, ca. 2019, serving as the main venue of the Chinese Farmers' Harvest Festival. The article "Temporary Gallery in Shichengzi Village / Fuyingbin Studio" by ArchDaily describes that due to the rural setting, limited budget, and construction time, the designers devised a temporary and practical solution consisting of orange-painted scaffolding, beautifully coloured safety mesh, and OSB boards as paving material.<sup>25</sup> (Fig. 18) The reused modular scaffolds and locally sourced mesh led to a high-speed setup that cost a small amount and could be dismantled and reused in the future, making it sustainable.

As described in the article, the gallery was organised as an alleyway, inviting locals and tourists to explore the fabric of the village's intimate spaces. This path led to an abandoned mill, which served as a photography gallery and a children's exhibition, titled "Rock is sweet", showcasing their drawings. (Fig. 17) Including the kids was an economic and social factor for revitalizing this rural area and positively impacting future generations.

A traditional courtyard served as the media centre and emerged using the same scaffold system and OSB flooring, transforming the space while preserving the existing architecture. The villagers played an essential role in the assembly of these structures and were able to finish in just two days. The children contributing to the exhibition and the villagers helping with the setup of the structure reinforced the project's inclusivity.

The article concludes with the authorities' initial criticism of scaffolding. They considered it informal and not celebratory enough. Still, considering all the circumstances mentioned above, the designers found this to be the most suitable solution.

This project is another example of bringing color through minor added elements, in this case, even temporarily. The nature of the gallery had a rural background, as well as the space in which it took place.

Adjustments of the existing structure weren't needed, except for the floor, for which the designers used the OSB boards as mentioned above. This change is very subtle and draws the visitors' attention to the colored scaffolding structure. Vibrant orange brought the gallery to light and created a dynamic feel, essential for its movement and nature. It made a new identity while still maintaining what was found. Even though the designers did not change the existing condition, they still found a way to exhibit numerous works.

The color choice was not mentioned or seen anywhere in the existing spaces. Judging by the images and the gallery's theme, pumpkins and other tree fruits have this vibrant orange color. To further enhance them, the scaffolding reflects the same colour. It is a special case where heritage is not found only in built objects, but also in the surroundings. It proves that every element is worth studying and considering, as they can lead to very impactful results.



Fig. 18 Reflection of color on the scaffolding structure and fabric



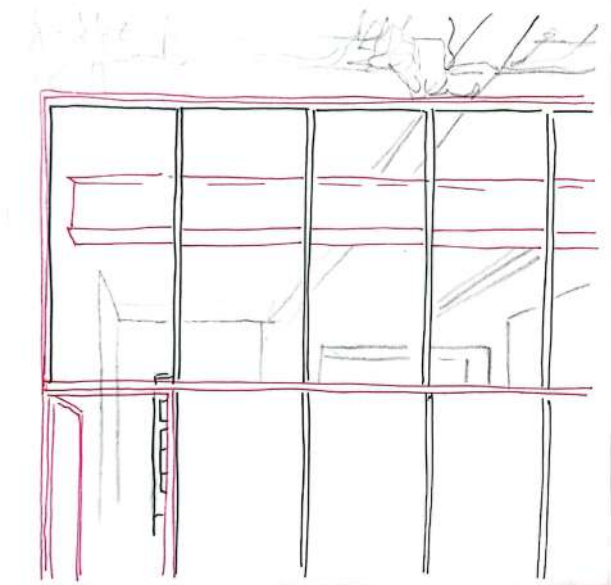


Fig. 19 Analysis on tracing paper of Famous (own work)

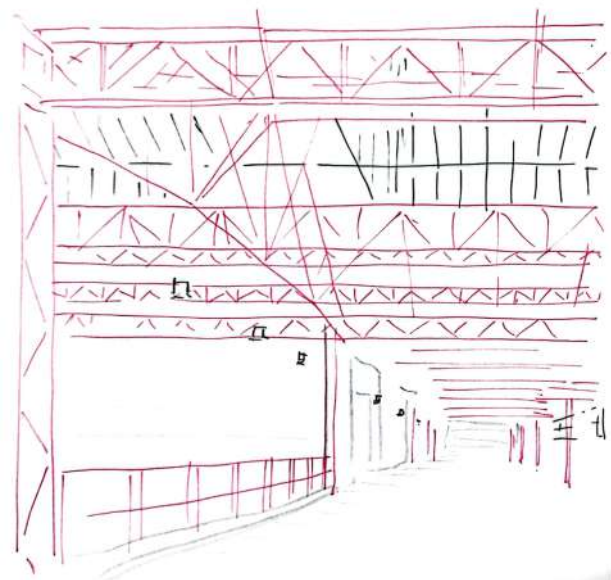


Fig. 20 Analysis on tracing paper of KANAL-Centre Pompidou (own work)

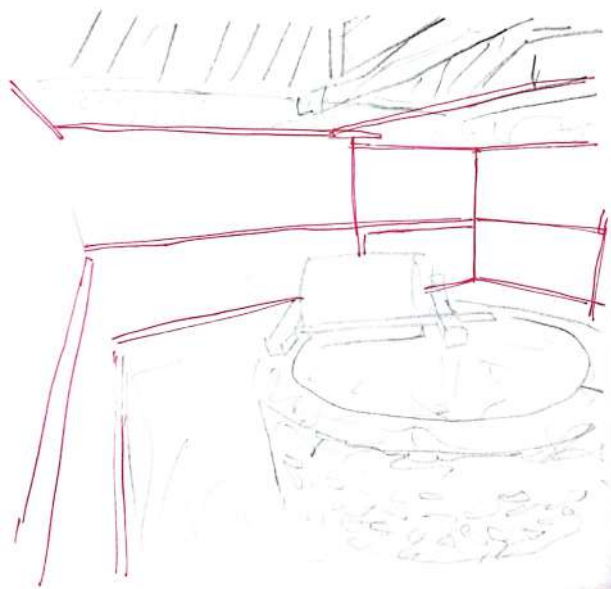


Fig. 21 Analysis on tracing paper of Temporary Gallery in Shichengzi Village (own work)

### 2.1.4 Reflections on ‘Echo’

‘Echo’ presents color as a powerful tool for architectural narration that echoes between the past and the present. This strategy connects memory with functionality by actively resurfacing the found colors through new interventions, instead of just preserving them.

In the ‘Famous’ project, (Fig. 19) the architects preserve layers of the past while also reflecting their colors onto new beams, reinterpreting in this way the found chromatic heritage and creating a collage of continuity. KANAL-Centre Pompidou (Fig. 20) finds an alternative solution to contaminated pigments that cannot be preserved. Their early documentation served as a palette, later reflected beautifully on the roof’s inner structure, resurfacing the many greens that once were part of this space in a subtle but intentional way. In the Temporary Gallery of Shichengzi Village, (Fig. 21) we see a rural interpretation of ‘Echo’ through the bright orange scaffolding. In this case, color heritage is drawn from

agricultural surroundings instead of built ones, extending its meaning in this way and including another type of collective memory of color. It brings to life Lupton’s theory, where he encourages people to recall their memories, which in this case are tied to the surroundings and engaging with them.<sup>1</sup>

In these case studies, color comes in different forms, but it serves as a transformative bridge between the old and the new, honoring their collective memories in these ways. These projects align with Hutchings’ theory, stating that most of the user’s understanding of the scene arises from its visually perceived properties, including color as a carrier of memory and significance.<sup>2</sup> Here, memory is visually recalled, even in the limited presence of its original state. ‘Echo’ seeks to restore the buildings’ identities through chromatic reflection, turning adaptive reuse into a visual, emotional, and functional process.



2.3 Fusion

*(n.) the act or process of fusing or melting together; union*

Fusion in this thesis means bringing existing colors through new, bigger interventions, where the space is heavily damaged. It is a continuation of ‘Echo’, but even braver. It dares to create entirely new atmospheres, where color, apart from other elements, has been lost through the process of ruination.

Respecting the past is again the primary goal, but new structural elements occur when the surroundings aren’t ideal. Everything new reminds you of the past while adapting to contemporary standards. In this thesis, color is mainly that historic element that supports the additions, and fuses them with the ruins.

We see this strategy mainly in spaces where ruination has taken over. Minor adjustments may not be enough; structural interventions must be presented, giving the space a new character. They could

be new floors, walls, staircases, windows, and doors. The overall spatial feel is still there, but highly altered because of the lack of its functionality.

To better understand this strategy, an analysis of two case studies takes place:

Case studies:

- 2.3.1 Nostra Signora della Costa
- 2.3.2 M’ARS

2.3.1 Nostra Signora della Costa

Caarpa  
Levanto, Italy

26. "Nostra Signora della Costa Cultural and Experiential Training Center / caarpa" 04 Mar 2025. ArchDaily. Accessed 23 Jul 2025. <https://www.archdaily.com/1027433/nostra-signora-della-costa-cultural-and-experiential-training-center-caarpa> ISSN 0719-8884

Fig. 22 New structure washed in historical color



The history of the Nostra Signora della Costa church in Levanto, as described in the article "Nostra Signora della Costa Cultural and Experiential Training Center / caarpa", dates back to its consecration in 1334.<sup>26</sup> After being owned by the local community for a while, it fell into the hands of the Genoese Da Passano family in 1528. During the 18th century, the presbytery was expanded, and ornate stucco and frescoes showcasing detailed biblical scenes were added. After World War II, the church was sold first to the Curia and then to a religious congregation. This marked the beginning of its decline. The floor was lowered, the hall was divided horizontally with a slab, and many valuable pieces of furniture, such as altars and balustrades, were sold. This situation remained the same for years and was even used as a school. In the 2000s, the slab was demolished and a flat wooden roof was built.

This article adds that PF Economy bought the building in 2018 to turn it into a cultural and experiential training center for conventions, conferences, seminars, and events. Caarpa and EXA engineering led this project, fulfilling the client's main request: increased usable surface area. They achieved this by introducing a contemporary steel "cantoria", a modern reinterpretation of a church choir. It is placed inside the hall, transforming the experience at the entrance. It creates an interesting and respectful contrast with the historic interior. The structure is linear and minimalistic, but simultaneously, two curved "capitals" connect with the floor, resembling Italian architecture's classical arches. The mezzanine staircase offers a better view of the 18th-century stuccoes.

It concludes by noting that this approach embraces the layered history of this building, instead of restoring it. Architects treat memory as a design element, conserving and showcasing its present scars. They cleaned the time's patina accumulated over centuries, revealing original hidden colors. The side altars are left as found, under lime putty, honest for their age.

Historic color in this project is also used as a tool to preserve the memory and

identity of the building. In this case, the change is significant and visible, and shows permanence. The perception of the space is highly altered, but remains respectful. One of the colors revealed throughout the process, a beautiful light blue, (Fig. 23) comes back and covers the entire added structure. (Fig. 22) While the addition is spacious and opaque, it enhances traces of the same color on the walls. The old and the new are fused and have a satisfactory dialogue together. This harmony is not reached only through the choice of color, as the arches and entire shape contribute to it, but this choice elevated the design even more.



Fig. 23 Traces of the historical color used for the new structure



2.3.2 M'ARS

NOWADAYS office  
Abrau-Durso, Russia

27. "M'ARS Centre for Multimedia Arts in Abrau-Durso / NOWADAYS office" 14 Dec 2016. ArchDaily. Accessed 24 Jul 2025. <https://www.archdaily.com/801371/mars-centre-for-multimedia-arts-in-abrau-durso-nowadays-office> ISSN 0719-8884

Fig. 24 New structure that reflects the industrial nature through its colored material



MARS is a former wine factory transformed into a multimedia art centre inspired by a genuine interest in its history. The article “M'ARS Centre for Multimedia Arts in Abrau-Durso / NOWADAYS office” describes how the NOWADAYS office achieved this through light interventions throughout the space, in terms of material and manner.<sup>27</sup>

MARS is the first post-Soviet contemporary gallery in Moscow that expanded to Abrau-Durso in 2016. It occupied the ground floor of this former factory in the southern part of Russia, a very scenic location. The design team merged industrial elements of the old factory with new layered elements. The new navigation elements derive from materials seen in contemporary multimedia arts: differently sized LED tubes and thin black metal sheets.

In this article, the gallery reinterprets the black and white exhibition spaces as dark and well-lit to avoid monotony. Artwork is displayed in big boxes; some are covered in galvanised rainbow steel on the outside, highlighting the space's industrial origin. (Fig. 24)

The new concrete floor keeps a respectful distance from the historical walls, which are filled with gravel stones from the lakeshore and highlighted by LED lighting. The most significant intervention is the steel-sculpted registration desk in the corridor. At the end of the exhibition, people get ‘teleported’ to the Moscow MARS centre, through a VR light experience inside a hidden room.

The material that stands out the most, as described by the article, is galvanised steel, which has this rainbow effect. This material often treats small elements, such as framing nails or rolled angles, to make them durable and rust-resistant. The designers were particularly interested in its iridescent texture and decided to dare on much larger surfaces. They used these steel sheets to create vivid, polychromatic boxes to exhibit artworks. (Fig. 25)

This project is another example of significant interventions that highly alter the perception of the space through color and other physical elements. The architects focused on light interventions

throughout the entire space but had to make exceptions where needed. The decision to go with the galvanised rainbow steel was a way for them to keep it subtle and interesting. They brought every color through them in a way, turning big, regular boxes into a focal point. Even though the boxes are large, they are still in harmony with the historic industrial surroundings due to the exact material that enhances them.



Fig. 25 Interior of the added structure



Fig. 26 Analysis on tracing paper of Nostra Signora della Costa (own work)

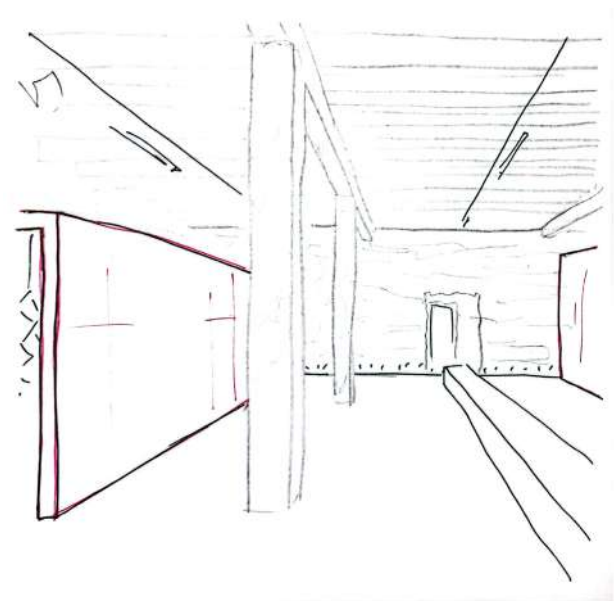


Fig. 27 Analysis on tracing paper of M'ARS (own work)

2.1.4 Reflections on ‘Fusion’

‘Fusion’ emerges when decay takes over and memory begins to vanish. It is a strategy based on necessity and boldness, where the past has to be reimagined to survive through color as a deliberate presence. Color, extracted from the last sources, is amplified and embedded into new, large structural elements, which highly shift the space’s perception. These colorful additions fuse the old and the new, while always being respectful towards the past. This strategy combines Serra’s definition of color as a spatial strategy, altering the perception of architectural shapes and assigning new meaning, <sup>1</sup> with Hutchings’ meaning of color that rises through its reapplication based on the memory it carries. <sup>2</sup>

In Nostra Signora della Costa, (Fig. 26) the new contemporary cantoria revives memory through a soft blue uncovered

from the walls. Even though this chromatic gesture stands out from the ruins, it fuses with the ruins and reminds us of the color and arches of the past that it reflects. In M’ARS, (Fig. 27) the intervention’s color is inspired by the industrial nature of the building. Galvanised iridescent steel wraps new large volumes and merges them with the surroundings. They resonate with the site’s identity and create a tense yet harmonious atmosphere that coexists with the rough past.

These cases show that color can carry memory forward when it fades and allow architecture to change and renew, without forgetting and erasing. As Khanzadeh argues, these intervention strategies are rooted in empathy, cultural memory, experience, and the emotional atmosphere designers intend to evoke. <sup>3</sup>



# The Castle of Heers- Master Project

## History of the site

The Castle of Heers dates back to the 14th century. Its present-day architecture originates mainly from the 15th and 16th centuries. Its general structure remains intact, giving it significant heritage value. However, years of neglect have left the buildings in an inferior condition. Complete restoration is yet to occur, but a group of local volunteers has focused on the maintenance of the park, giving partial access to the public and occasional events. The Flemish government installed emergency roofs to prevent further decay. Although in 2015 a redevelopment study explored restoration and adaptive reuse scenarios, none were proven economically feasible. In 2021, the Flemish government purchased the site to preserve its heritage and promote tourism.<sup>28</sup>

The Castle of Heers was rebuilt in a late Gothic style with Renaissance elements in the late 15th century or early 16th century. In 1362, the de Rivière family, later called van Heers, acquired it after its destruction in 1328 during a conflict. In 1477, Raes van Heers regained the castle after the Burgundian Duke's death, whose troops had destroyed and confiscated it. Reconstruction began shortly after. After the death of the last Count of Heers around 1682, the castle fell into despair during regional warfare. The Abbey of Saint-Laurent acquired it, and after the bankruptcy of the de Rivière family in 1757, sold it to Baron de Stockem, whose brother restored it. Through marriage, the property came into the possession of the Desmazières family in 1859, which still owns the castle.

The castle has a compact structure with four wings around a nearly square courtyard. Its 16th-century architecture highly references the Renaissance, especially through the bacon layers, meaning the alternation between red brick and marlstone. The farm buildings

form an L shape to the west and south of the castle. The monumental barn, possibly the oldest building, bears a 1664 gable stone, while the farm gatehouse is dated 1671. Due to a double moat system, a drawbridge extends from the farmyard to the castle. A walled orchard, reinforced walls with battlements, and a two-towered gatehouse defended the castle even more. In the 19th century, a landscape park replaced the orchards and gardens, and the gate moved to the street and connected with the castle through a new road. This situation remains to this day.<sup>29</sup>



Fig. 28 Exterior picture of the Castle of Heers

This castle is an appropriate site to manifest the three strategies, 'Trace', 'Echo', and 'Fusion', because of the variety of conditions in which different rooms are in and the vibrant color palette it provides. Colors are layered on top of each other, telling countless stories. It is impossible not to notice them and forget they were there. They want to continue existing, like the many other elements. But how?

28. Nikolaas Vande Keere, Philippe Swartenbroux, and Linde Van Den Bosch, "Introduction Design Studio sem. 1" (presentation, Master Adaptive Reuse & Herbestemming, Faculty of Architecture and Arts, UHasselt, September 21, 2021).

29. Provincie Limburg. Provinciaal Ruimtelijk Uitvoeringsplan (PRUP) 'Kasteel van Heers'. Heers: Provincie Limburg, 2013.





Fig. 29 Relationship of the castle with the surroundings

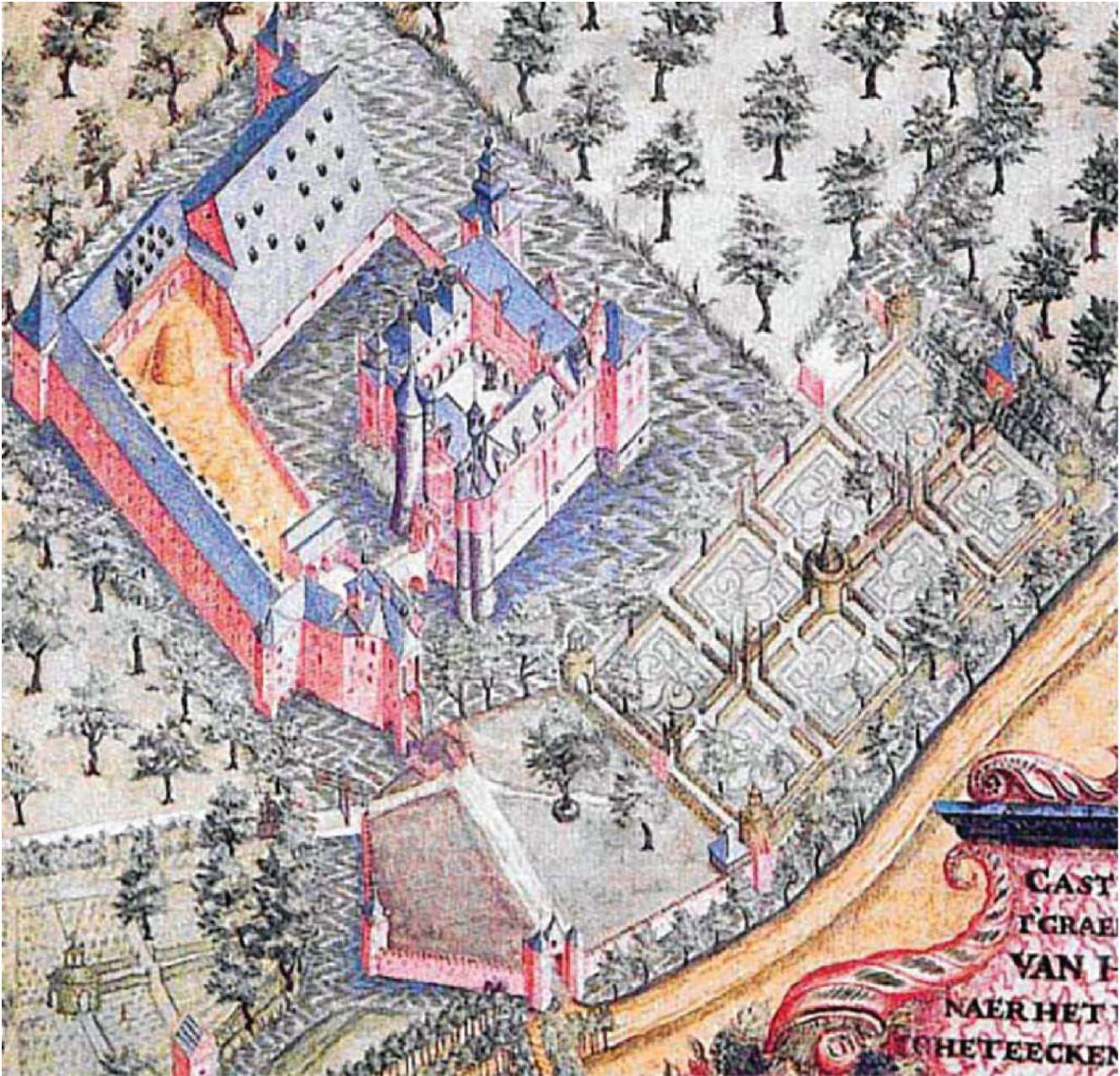


Fig. 31 Willem Roy, 1641

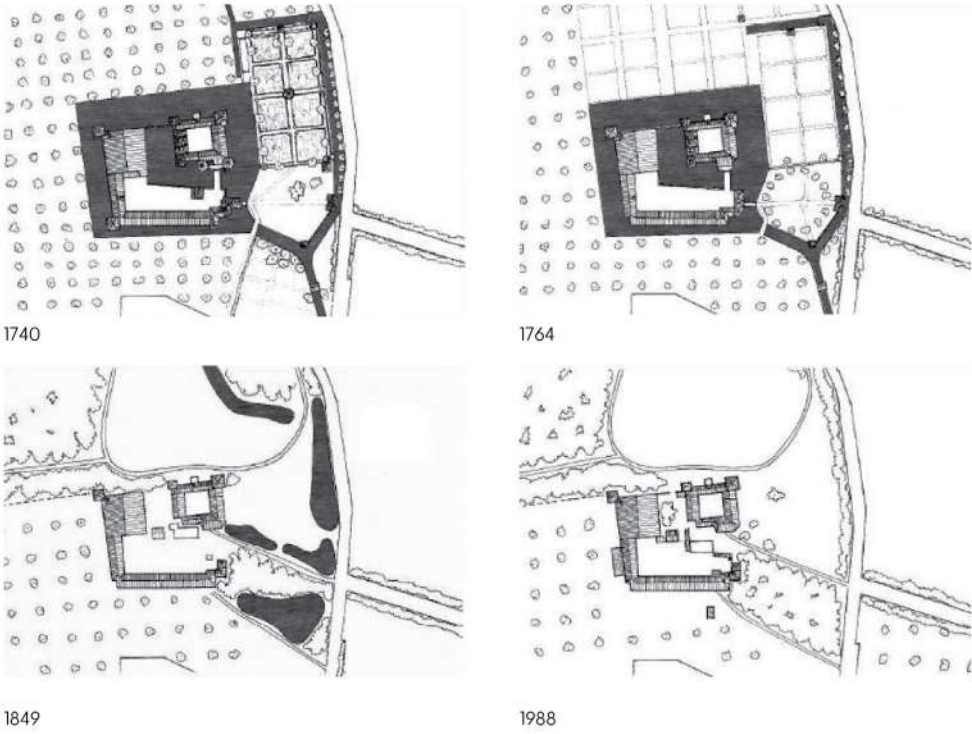


Fig. 30 Transformation of the site through centuries



Fig. 32 A historic picture of a wedding in the inner courtyard



3.1 Documentation of Found Colors

As mentioned in the first two parts, colors in historical sites carry memory, identity, and atmosphere. They reflect past encounters and cultural associations, and convey emotional and historical meaning that people interpret through memory. To continue and deepen the spatial experience, such colors should be preserved and adapted for new uses. The documentation of the Castle os Heers colors aims to achieve this and helps safeguard and understand them before deciding how they appear in the project.

For this documentation process, I visited the castle, took numerous pictures, and looked at the existing ones. Then I digitally picked the color from the images with a pipette, and in some cases where the picture's lighting wasn't accurate, I even modified them. The methodology I used is straightforward and requires expertise to be done accurately.

Looking at the exterior, you immediately notice the rich brick color, which has remained unchanged throughout its life. Apart from that, you can see a blue tint on

the windows from place to place. It's not a reflection of the sky, but instead tinted glass. It hints at the incredible interior, the sight of which you can never be prepared to see.

In general, different spaces were in various conditions, with a primary distinction between the west side, which the owners inhabited, and the east side, occupied by the workers. This phenomenon also applies to the found colors. The west side mainly has layers of paint and watercolor, frescoes, decorated ceilings, and doors. Meanwhile, the east side is in the most ruinous state, where generally you can only see the main walls, and elements like inner walls, floors, and doors have vanished with time.

One of the first spaces I entered was the former kitchen. A bright red caught my attention. I immediately asked the tour guide if that color was original, and they confirmed that it was. Even though it was falling apart, its vibrancy made me more aware of the presence of colors in the following spaces.

The next rooms were a sequence of surprises. Each one had a unique feeling

and beautiful colors, all so tastefully applied. They ranged from soft to bold colors, each combined with wallpapers or white frescoes, colorful marble fireplaces, wooden floors, and details up to the ceiling. The damages were unavoidable, but they added a unique feeling to the spaces. Some rooms had derelict floors, numerous layers of paint and wallpaper peeling off the walls, and some had heavily damaged ceilings. The west side was so rich in these details, and that is where I gathered most of my visual information about the past of this castle.

The result of my documentation is this color diagram (Fig. 33), which helped me see the range of colors more clearly and use them respectfully in the spaces where I intervened. I grouped them into three mini-categories: raw materials, additional layers, and additional materials. The raw materials had the most neutral colors. The cobblestone flooring, wooden beams, brick walls, mosaic floors, and fireplaces do not change in my project.

The additional layers mainly refer to the many layers of paint on the walls. They

had the biggest range of colors, from soft to bold; yellow, red, blue, and green were found in many shades. The aim was to save as many of the found layers as possible, but damage had to be considered.

The additional materials, such as curtains, fabrics, doors, window frames, and scaffolding, were the hardest to preserve. Their documentation served mainly to bring their former color back through additions. Their colors were also diverse and bold, showing even more the attention to detail that previous owners have had through the years.

Safeguarding and reintroduction are needed to understand color as a cultural and architectural asset. Color plays a functional, descriptive, and symbolic role in shaping space and memory. Therefore, treating it as part of the building's history allows adaptive reuse to consider emotional and perceptual continuity, apart from material conservation.



Fig. 33 Color diagram and sources (own work)

3.2 Color Strategies in the Castle of Heers

Due to the wide variety of the rooms' conditions, I divided them into groups of different strategies, which I mentioned in the second part of this thesis. This alignment is subjective and affected by various components. I mainly considered the literal state of the colors and essential parts of the room, such as the floors and the ceiling. In instances where I imagined that modifying them would significantly change the perception of space, I weighed between options. Because this categorization is open, observers may differ in their interpretations. The spaces don't have strict differences between them, so there is a possibility that one might change the strategy applied for a specific space.

These strategies are like manners, with blurry lines between them, but so are the spaces in the castle of Heers. They start form 'Trace', which deals with the spaces that are the most well preserved, to 'Echo', that deals with spaces that still have a lot of layers of colors but that need major interventions to be functional again, and

'Fusion', which tackles the most damaged spaces, where the only traces left are those of primary building materials. This progression resembles Serra's framing of color architecture in three strategies.<sup>30</sup>

'Trace' values color intrinsically, preserving it as part of the building's material authenticity. Influenced by Palais de Tokyo, Het Predikheren, and Battersea Arts Centre, this strategy embraces all traces possible in the Castle of Heers, treating them as found artwork, adding only subtle, muted elements. In 'Echo', color reinforces memory while integrating functional upgrades, describing the building's history. It takes a lot of inspiration from the three case studies, Famous, KANAL, and the Temporary Gallery in Shichengzi Village. It connects memory with functionality and actively resurfaces the found colors through new interventions, instead of just preserving them.

Color in 'Fusion' influences the perception of the visual properties, presenting new

distinct interventions to reimagine heavily damaged spaces while still referencing chromatic evidence. Just as in Nostra Signora della Costa and M'ARS, this strategy brings historically documented color through integrating bold, influential colored additions.

Most of the rooms fall into 'Echo' and 'Fusion'. Unfortunately, there weren't many rooms that were well preserved. Therefore, we see 'Trace' applied in only two rooms. A primary concern was that different spaces were in various conditions, with a visible distinction between the right part, which the owners inhabited, and the left, occupied by the workers. The physical condition goes hand in hand with the condition of the colors, so I had to consider this. Another thing that is important to highlight is that this project shows the last stage of the castle. I reimagined it as an art centre. The goal was to create functional spaces where interventions are balanced with the existing parts, not by blending seamlessly in, but by being visible.

Spatial Concept

The space in which I worked is the main castle building. It serves as an art centre, hosting workshops, coworking spaces, and galleries. The spaces on the castle's right side, the ones in better condition, serve mainly as gallery rooms. Local and guest artists can exhibit their artworks in these temporary spaces. Interesting dialogues are created between the interiors, resembling a work in progress, and the art displayed there, where visitors can switch between them.

Local artists can work on their art on the left side of the castle. These spaces were very ruinous, and significant spatial changes were easier to make. Different art workshops are located on the first floor, while the ground floor is a flexible space that can work as an exhibition space or an open workshop.

The inner courtyard or the other outdoor spaces are also flexible, without any fixed structures. The different spaces around the castle can serve in the future as temporary housing for artists, for bigger events that might happen there.

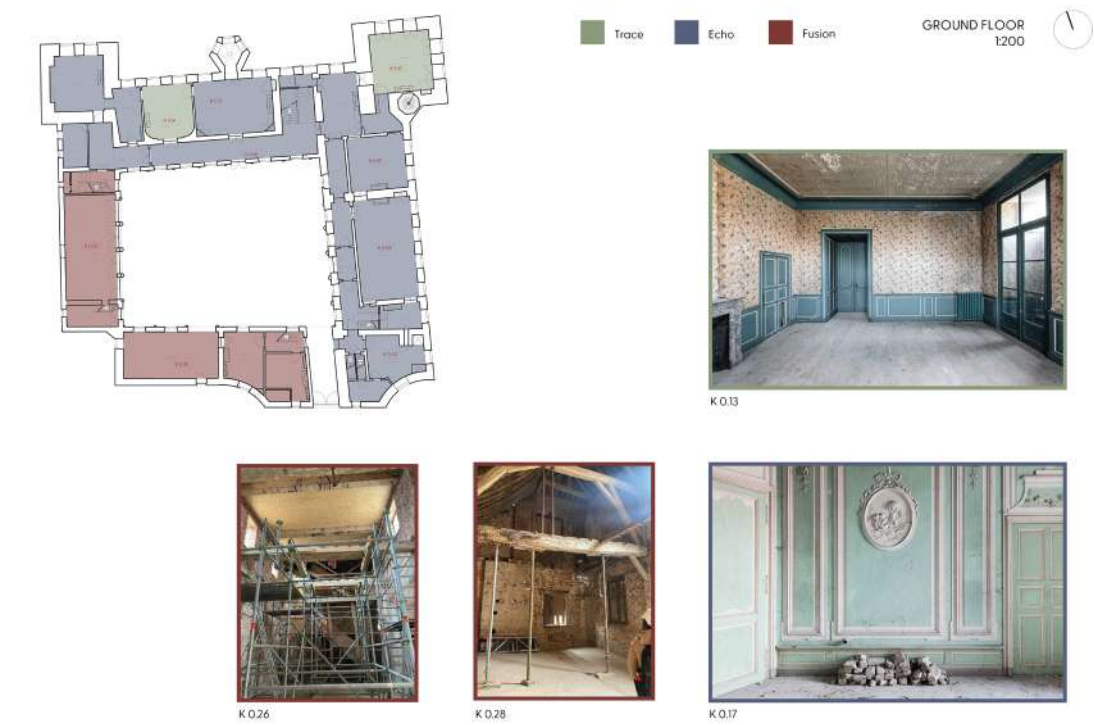


Fig. 34a Three strategies spread across the castle (ground floor), (own work)



Fig. 34b Three strategies spread across the castle (first floor), (own work)

30. Juan Serra, "Three Color Strategies in Architectural Composition," *Color Research and Application* 38, no. 4 (2013): 238–250, <https://onlinelibrary.wiley.com/doi/10.1002/col.21717>.



3.2.1 'Trace'

Room K 0.13



a



b



c

Fig. 35 Existing condition of room K 0.13

This space, located on the ground floor, was the Lord's room, one of the most important rooms of the castle, visibly so. It has a unique, hand-painted wallpaper, made by British handicraftsmen. It is in relatively good condition, but some places are falling apart. A dark forest green covers the wainscoting, the doors, and the cornice on the ceiling, where some parts are damaged. The floor is in very good condition, but scaffolding supports the ceiling beams, which implies instability. Overall, the damages here are minimal, so I suggest solutions as follows: the parts where the wallpaper is falling apart because of moisture problems, I cover with this green paint, and the pattern is recreated in white lines, to bring back in a subtle way what was lost. The parts of the wood that were broken are also

replaced by unpainted wood, and the lines are continued in paint. (Fig.37) The floor is refurbished, and everything else is left as found, except for the ceiling, which is heavily damaged. The beams get replaced and the design lost by removing the ceiling are brought back in green paint, on a thin perimetral surface. (Fig.36) This room works as a small gallery, and the panels are plain and have the ceiling's color. They almost look like the ceiling is projected vertically on the floor, aiming to reminisce as much as possible about the former appearance of this room. As a result, these minor adjustments make this space functional again, while keeping the found atmosphere without restoring the damages and bringing new colors. These changes might go unnoticed when taking a quick look, but that is what makes this strategy stand out.



Fig. 36 Illustration of 'Trace' applied in room K 0.13 (own work)



replacement of damaged beams

abstraction of the lost frescos with the room's green on a perimetral surface

coverage of wallpaper gaps with green paint and abstraction of the pattern with white lines

coverage of with wood and abstraction of the continuation of the shape with white lines

flooring refinement

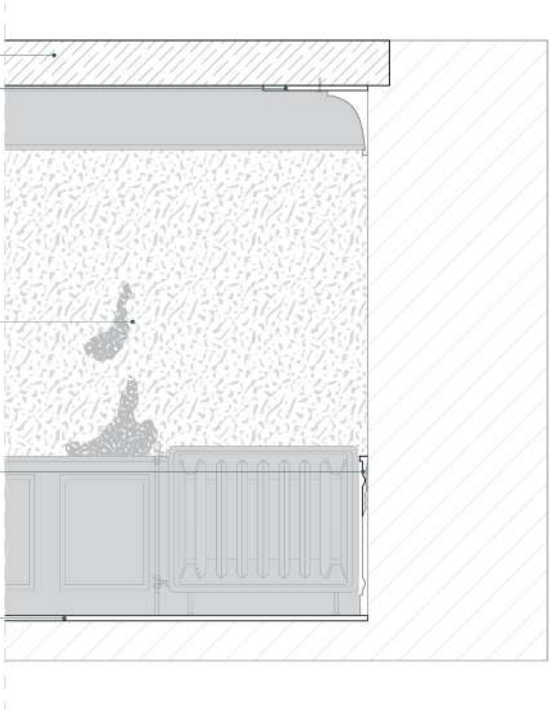


Fig. 37 Technical details of 'Trace' in room K 0.13 (own work)



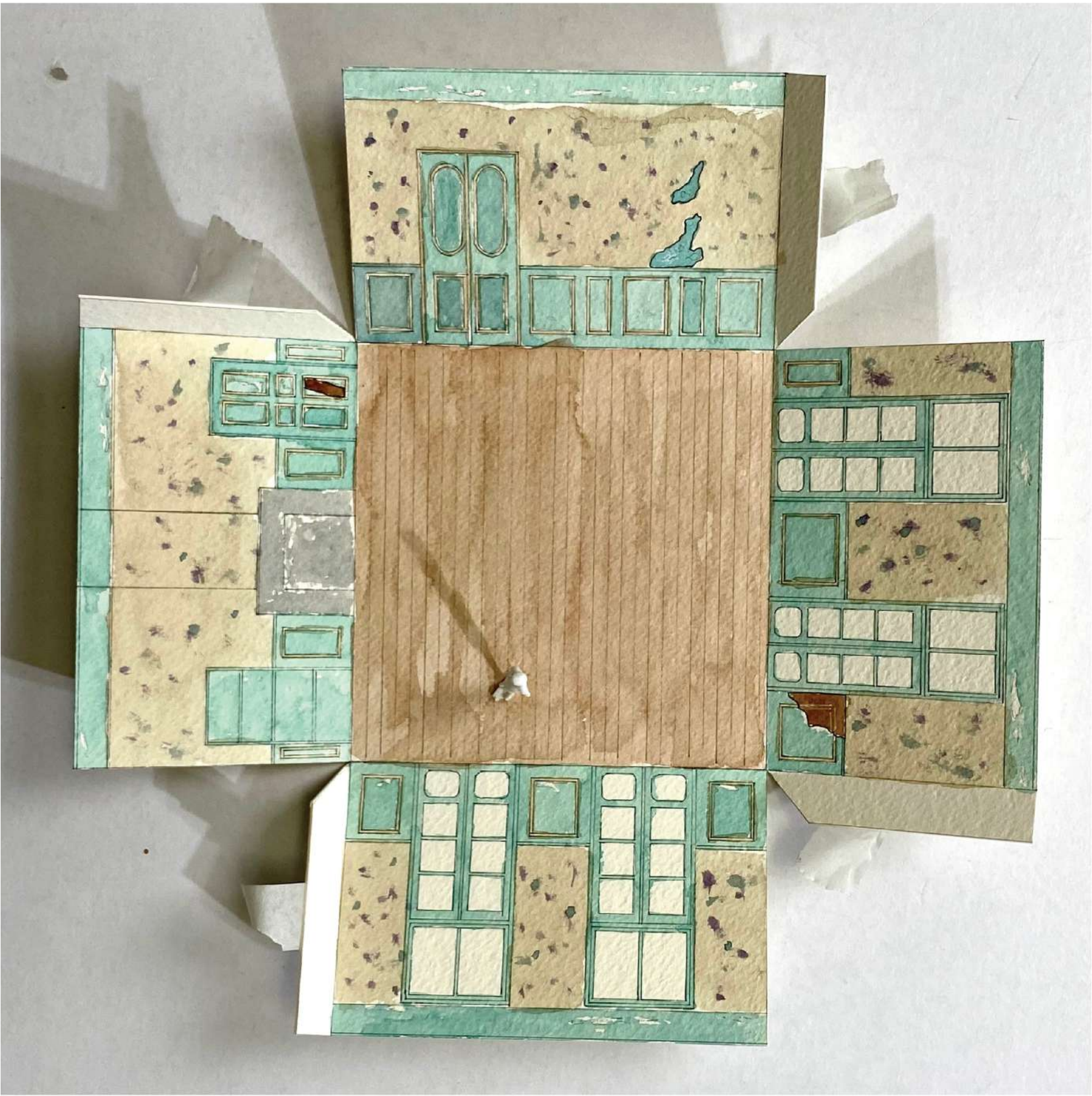


Fig. 38 'Trace' hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)



3.2.2 ‘Echo’

Room K 0.17



Fig. 39 Existing condition of room K 0.17



Fig. 40 Illustration of ‘Echo’ applied in room K 0.17 (own work)

This room used to be one of the many tea rooms. A minty green covers all the walls, the ceiling, and the doors. It is heavily decorated with fresco details in white, where we can see floral shapes from the walls, up to the ceiling. The damages are bigger in this room, though. Plaster is falling off the walls, revealing the bricks. Scaffolding appears everywhere to support the highly damaged ceiling, where we can see significant gaps and damaged wood structures. (Fig. 39) The floor is covered in damaged parquet, which also has several gaps.

The adjustments needed in this room had to be more significant to make it functional again. Many elements are lost, and bringing new subtle ones is unrealistic. I could create a new atmosphere in this space, which enhances the existing condition, while bringing elements from other parts of the castle. Those elements come with new colors. For instance, the floor gains a new microcement layer, colored in the shade of green from the trace room. I picked this green as a darker shade of the green on

the walls, to play with the shades, and microcement as an element that we can find in many colors. New ceiling beams replace the damaged ones, and here, the previous technique of bringing back the frescoes is also applied, but this time, the circumferential surface takes the floor’s color. The lost frescoes are drawn in white lines. All the beams keep the wood’s shade, except for the bigger ones, which have a complementary red shade, taken from one of the textile colors. I use red to create this contrast, making the space more dynamic. The previous green is also used for the window frames. Like the ‘Trace’ room, this room works as a gallery and an object of display. A scaffolding structure is added for the artwork, bringing back the as-found state. It is colored in the same red as the main ceiling beams. This time, the scaffolding structure is only used for exhibition purposes, not to support anything. It comes as a homage to the state in which I found this room, a transition period in which the castle started getting its life back. Artists can use their creativity to expose their art and adjust this structure to their liking. (Fig. 40, 41)

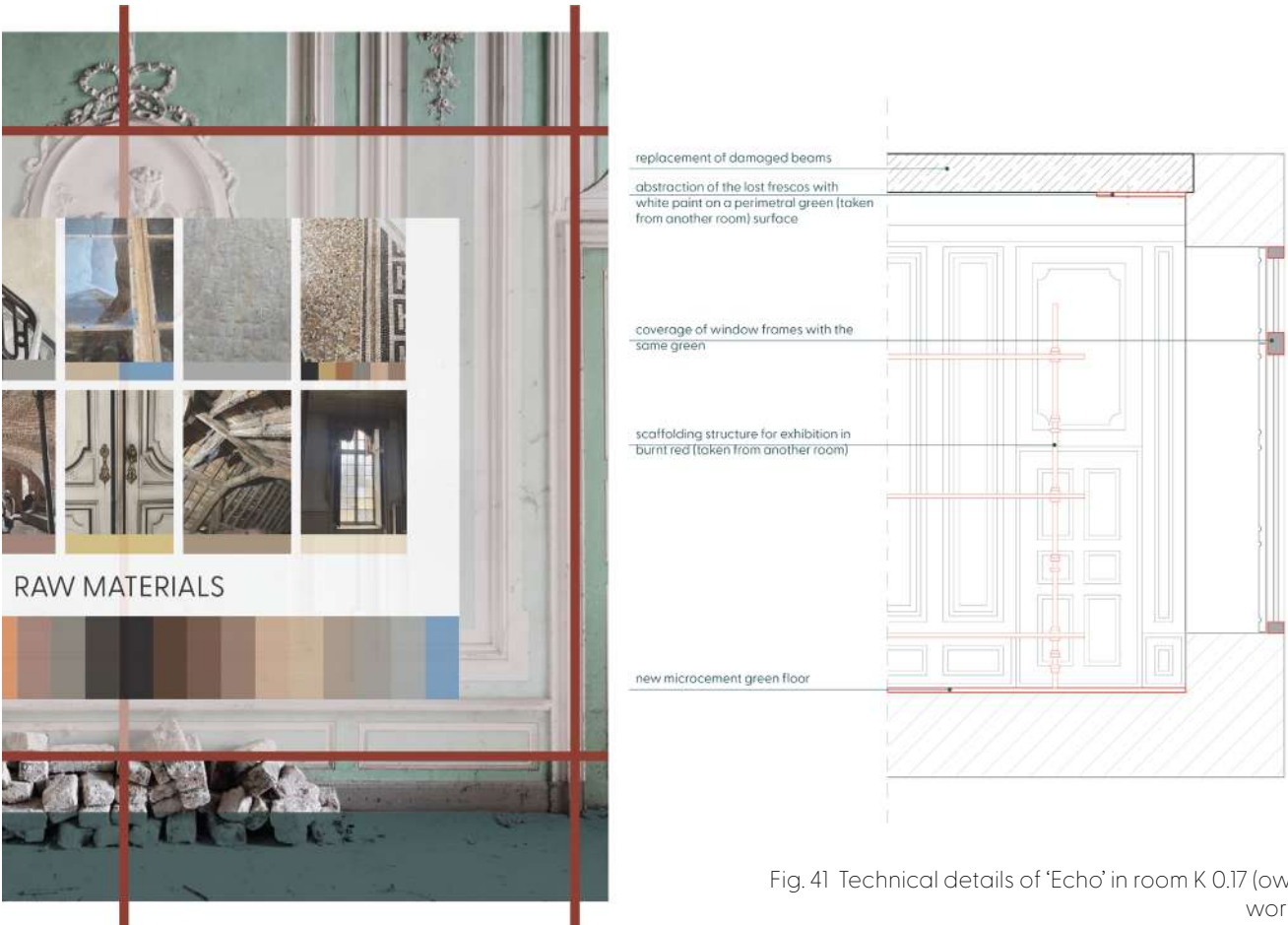


Fig. 41 Technical details of ‘Echo’ in room K 0.17 (own work)



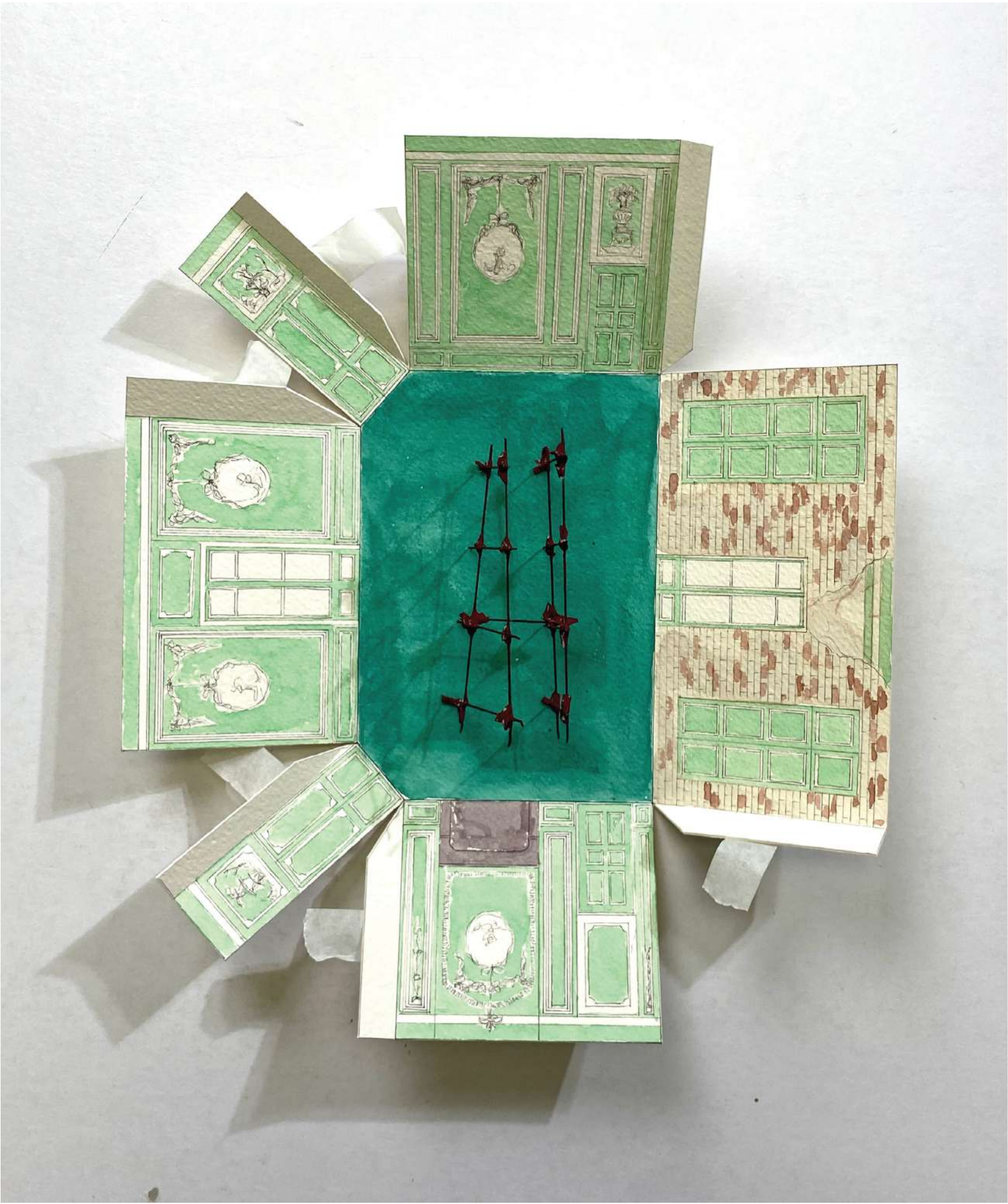
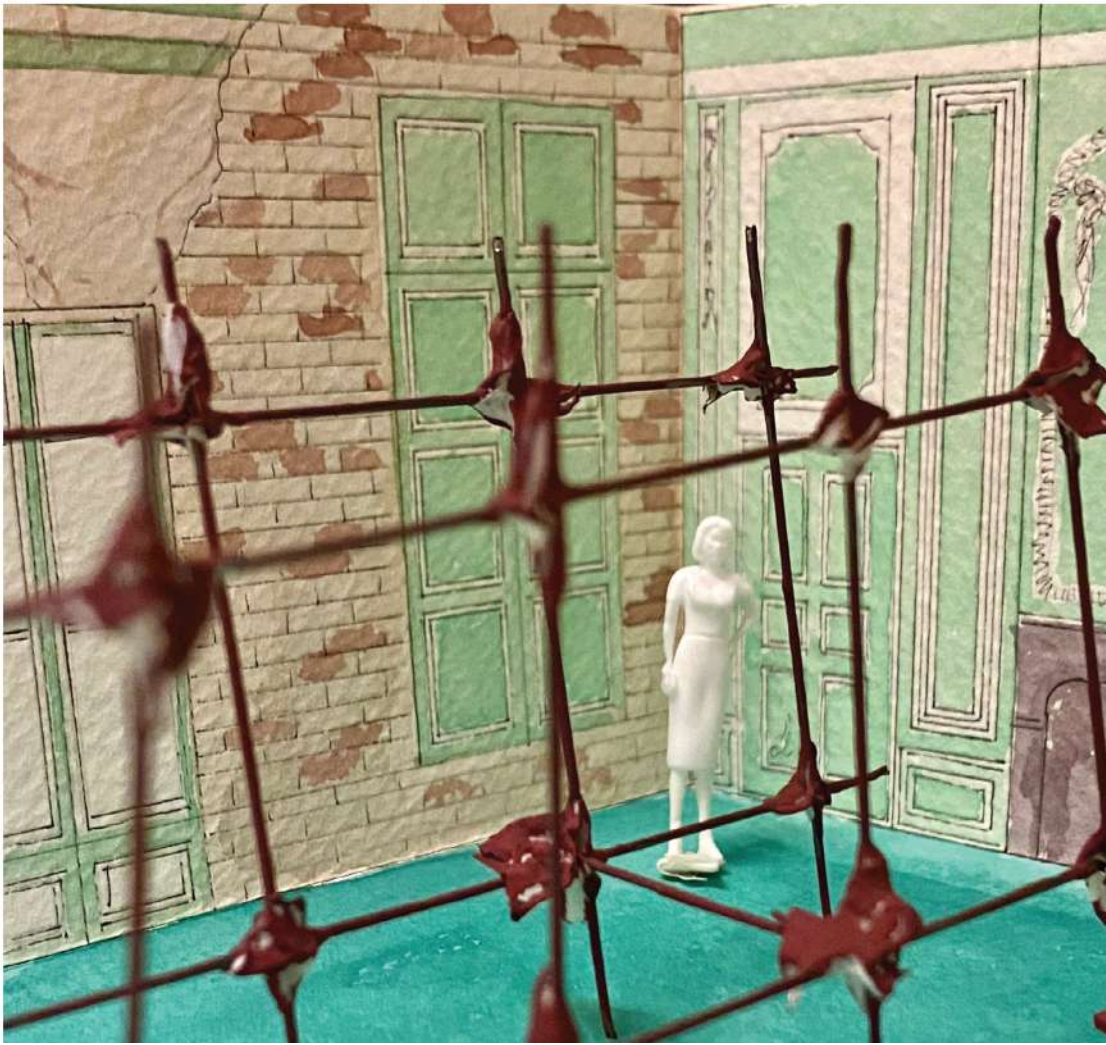
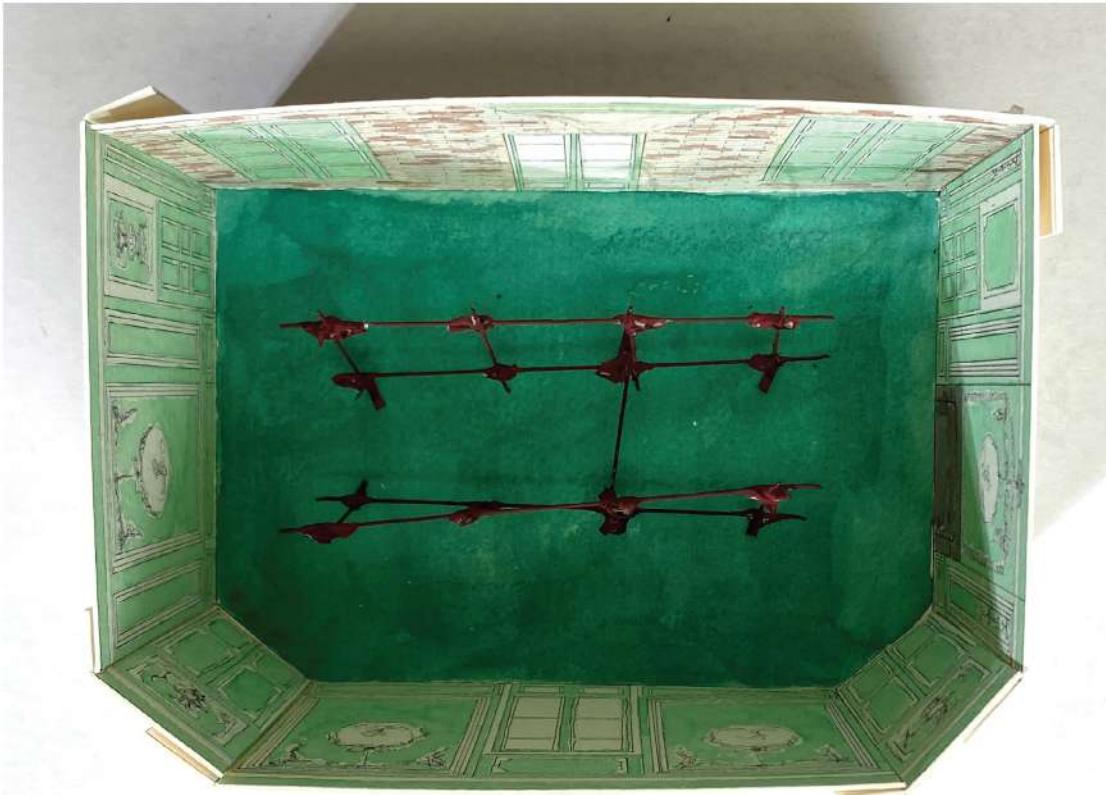


Fig. 42 'Echo' hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)





3.2.3 ‘Fusion’

The west and south wings of the castle



Fig. 43 Existing condition of the west wing



Fig. 44 Existing condition of the south wing

These parts of the castle used to be occupied by the workers. The ground floor was a stable, with arched openings towards the inner courtyard, small random openings on the opposite side, and a high ceiling. The ground is covered by cobblestone because of its former use. Narrow wooden steps lead you to the first floor, which used to have small bedrooms for the workers. The height is way smaller, and the window openings are small and square on both sides. On top of this floor is a roof with little accessible space and a water tank inside the left wing, which its previous owners used.

Most of this part was in terrible condition. Inner walls destroyed, non-existent windows and doors, heavily damaged floor and roof beams, entirely exposed brick on the interior, and so on. These spaces have been neglected since their creation, as they used to serve as workers’

rooms on the first floor and stables on the ground floor. The roof is temporary at the moment, to prevent more moisture from coming in, but many beams still exist. A few damaged ones have been replaced, but much work is still needed.

I have chosen this part to apply the ‘Fusion’ strategy because of its condition. Its former character is almost lost and in need of a new one. I could create new spaces with significant structural modifications and bring characteristics from the other spaces of the castle, such as colors. I transformed these spaces into workshops, flexible spaces, and coworking spaces. They use color to create appropriate interiors that fit their new functions while bringing back parts of the castle’s history. The left wing is mainly yellow and hosts a flexible space and classrooms, while the south wing is green and serves as a coworking space.



Fig. 45 West and south wing view from the inner courtyard



Classrooms and gallery

West wing

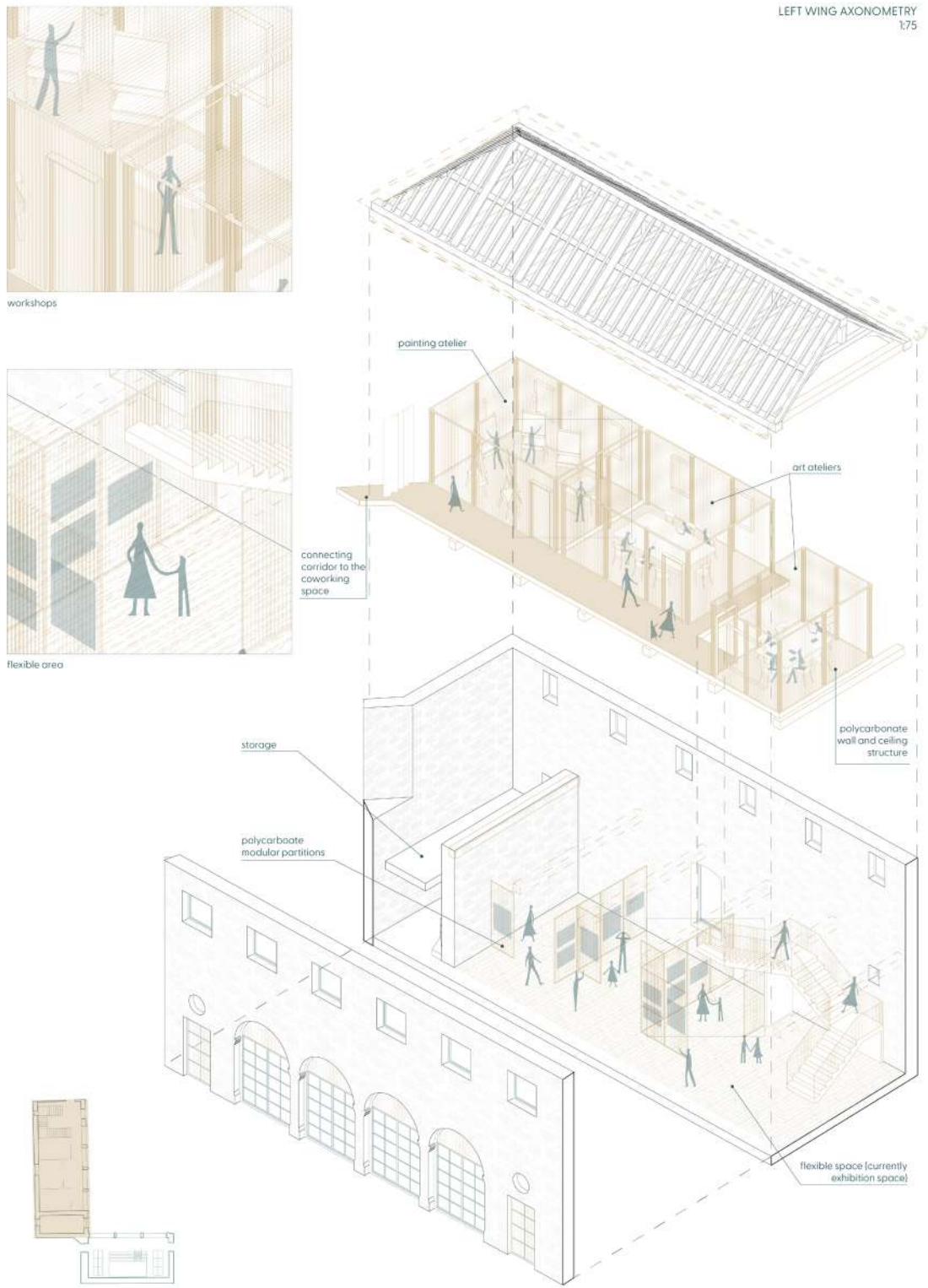


Fig. 46 Axonometric drawing of the west wing intervention (own work)

First, structural adjustments were needed, such as a new spacious staircase, a wooden ground floor, a new floor using the same beam pattern and covered in vinyl on top, new main beams where needed, windows and doors, and a new roof. The ground floor serves as a flexible space that transforms accordingly through vertical polycarbonate panels. (Fig. 47) Polycarbonate is an element I used a lot in this project. It started from the workshops, which are located upstairs. Here we find three art workshops, organised into polycarbonate boxes. (Fig. 48) I picked this material to create little insulated spaces that allow maximum

light through the small windows on this floor. The corridor leads to a curtain, and behind it, the coworking space. I removed the top floor ceiling to allow the space to 'breathe'. As a result, the roof is visible from this floor. The color used on this side is yellow, from room K 1.15. It is applied on the panel frames, the staircase, the workshop frames, the top floor, and wood structures on the inside and the first floor. According to Ron Reed in "Color Plus Design: Transforming interior space, 3rd edition", yellow enhances concentration and creativity, both essential for this type of space.<sup>31</sup>

31. Ronald Reed. Color Plus Design, 3rd Edition: Transforming Interior Space. Fairchild Books USA, 2023.

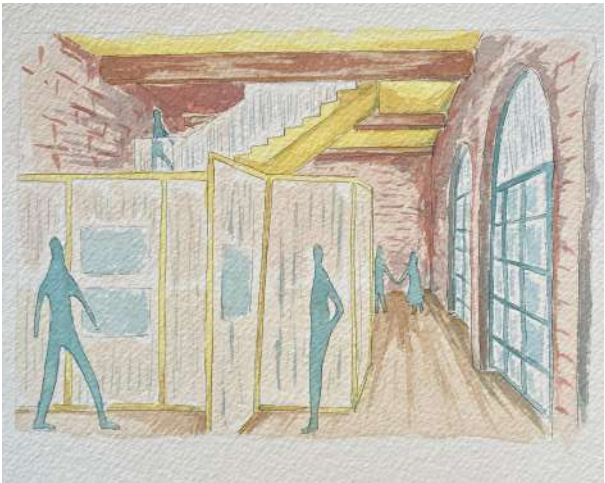


Fig. 47 Watercolor drawing of the gallery space intervention (own work)



Fig. 48 West wing intervention hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)



Fig. 49 Section perspective of the west wing intervention (own work)



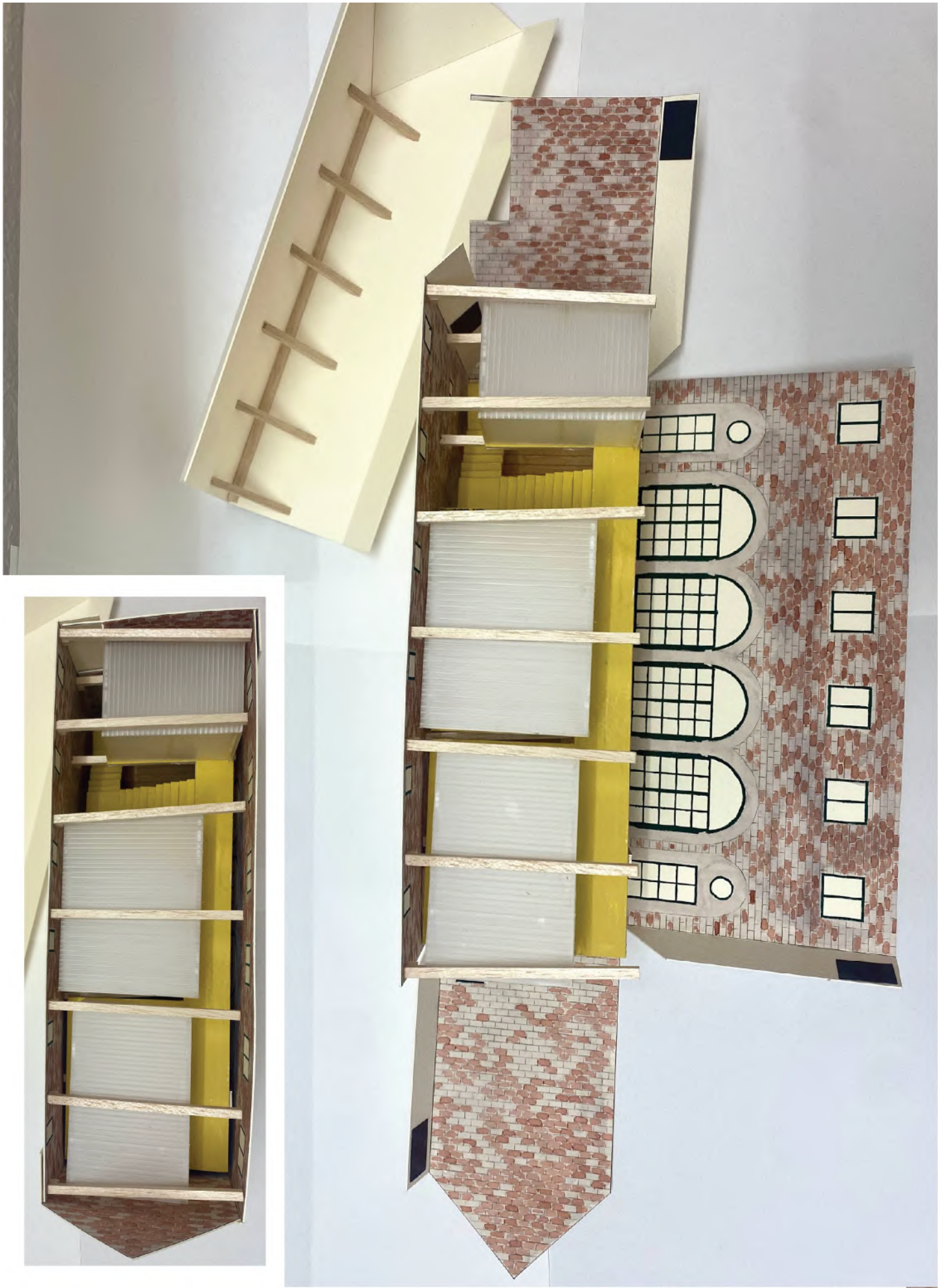


Fig. 50 West wing hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)



Coworking space

South wing

SOUTH WING AXONOMETRY  
1:75

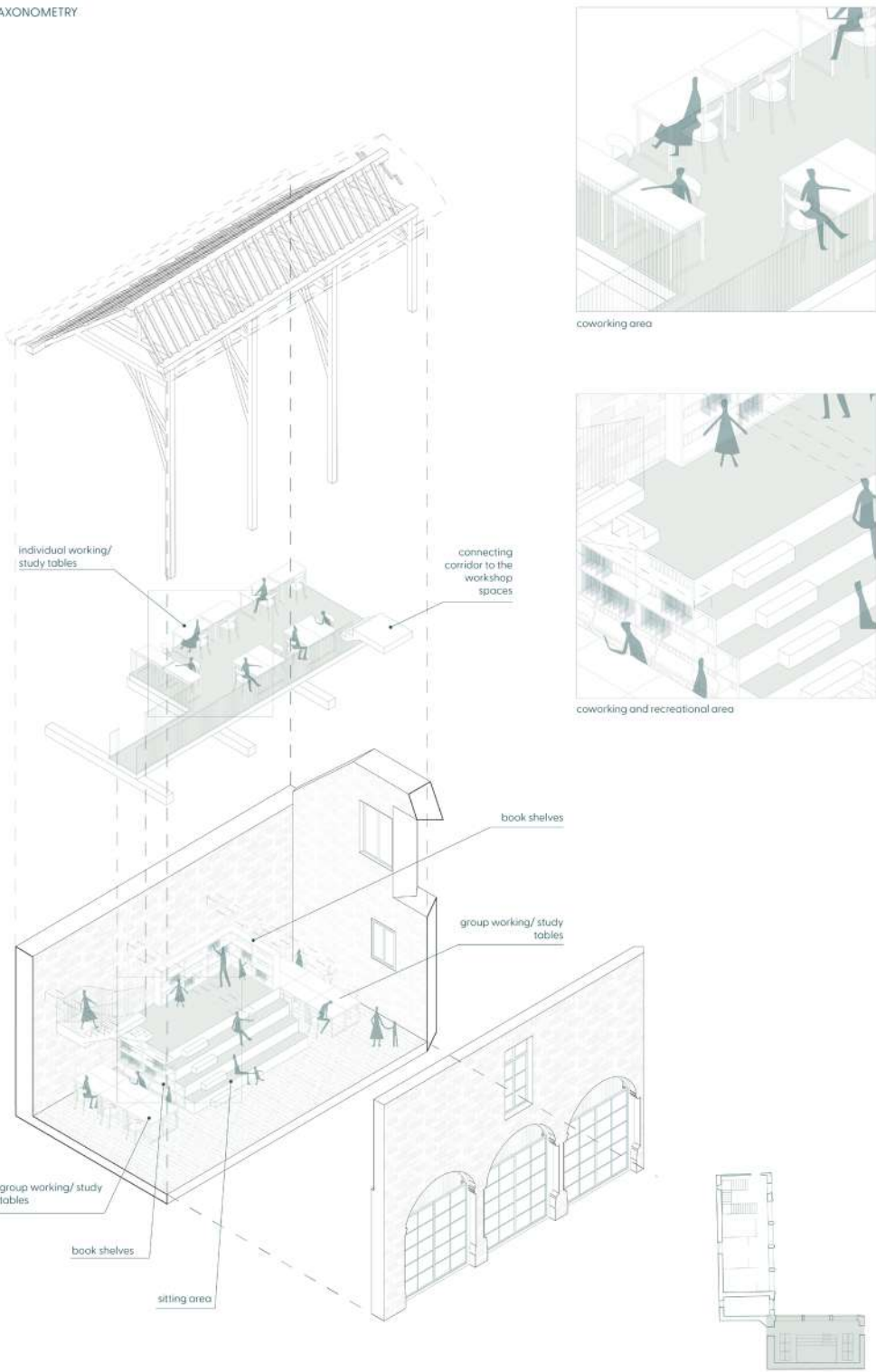


Fig. 51 Axonometric drawing of the south wing intervention (own work)



coworking area



coworking and recreational area

This wing hosts the coworking space. It is also a two-floor space; downstairs, there is a more free seating area on a bleacher, with bookshelves on top and sides, and storage space under it. On the sides, groups of tables and on top of the bleacher, people can climb the stairs again and go to the other, more individual working spots. (Fig. 52) I picked the color green because it has a relaxing effect for long hours, which is necessary for a space like this.<sup>32</sup> It is the green of the 'Echo' room. It is applied on the bleacher, the top floor, and the stairs. (Fig. 53) I also used polycarbonate here, but more subtly, behind bookshelves

and as railings. Also, two of these arches, which were historically transformed into small windows, were reopened to give the space as much light as possible. The roof has also been replaced here, and the ground floor gains this wooden surface.

All the windows are new, and the frames are painted dark green, the green found in the 'Trace' room. On the arched part, I also used polycarbonate to unify the windows with the interior. They are the same on both sides.

32. Ronald Reed. Color Plus Design, 3rd Edition: Transforming Interior Space. Fairchild Books USA, 2023.

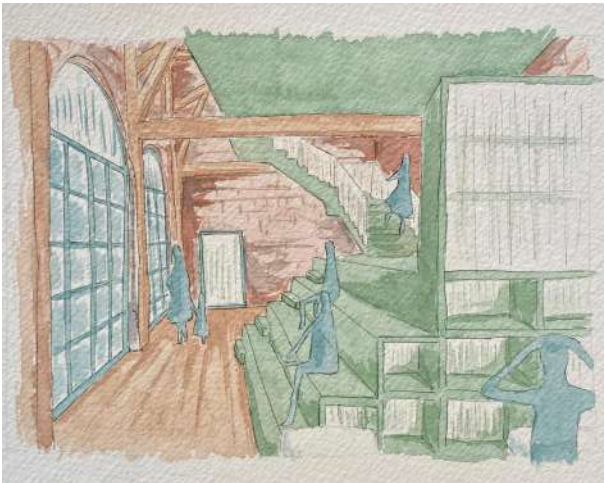


Fig. 52 Watercolor drawing of the coworking space intervention (own work)



Fig. 53 South wing intervention hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)



Fig. 54 Section perspective of the south wing intervention (own work)





Fig. 55 South wing hand-drawn in watercolor and gouache, and assembled as a physical openable model (own work)





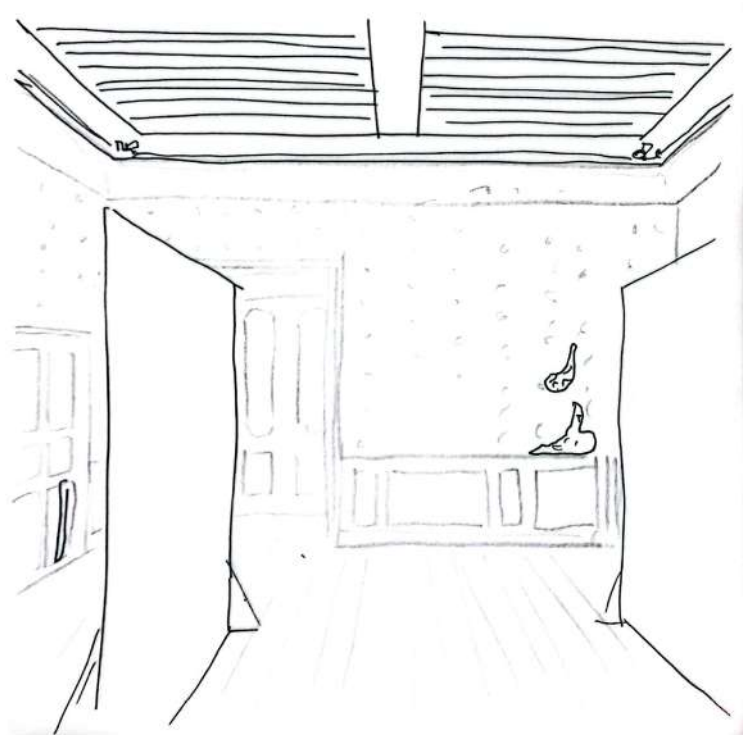


Fig. 56 Analysis on tracing paper of room K 0.13 (own work)

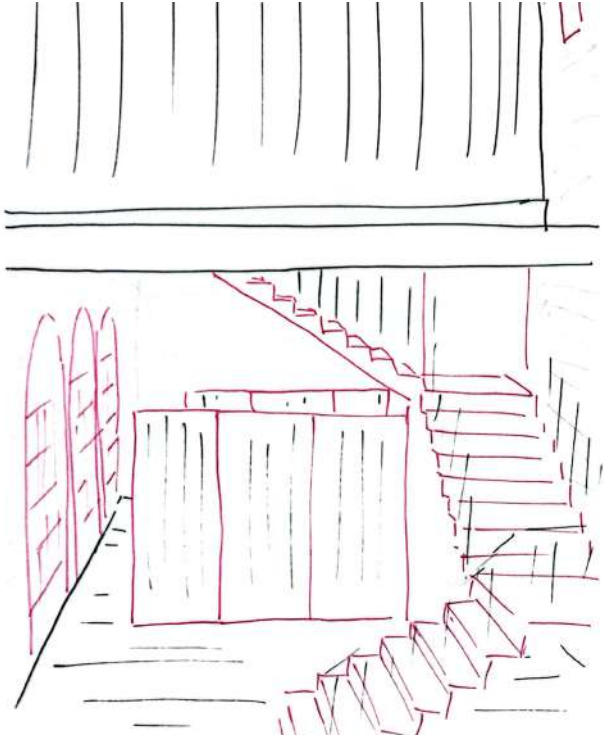


Fig. 58 Analysis on tracing paper of gallery in the west wing (own work)

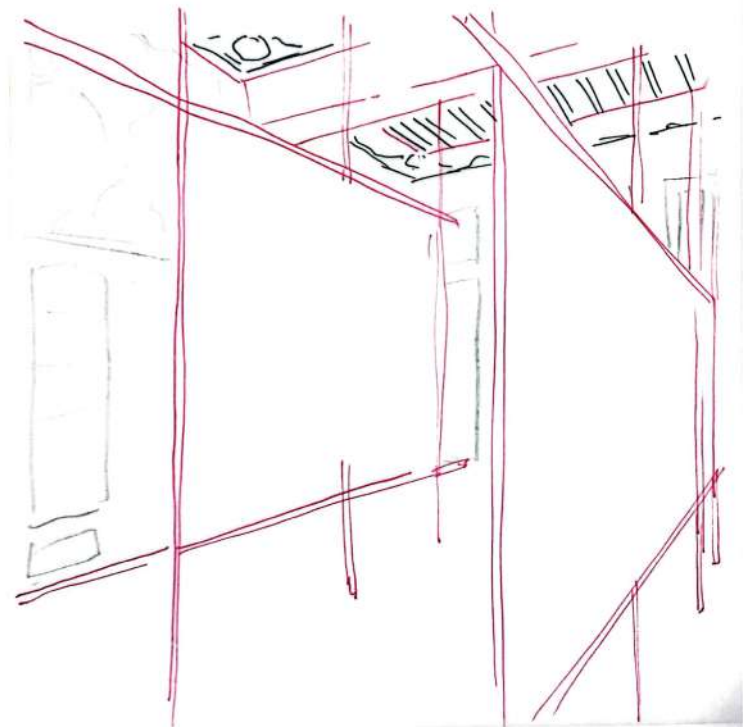


Fig. 57 Analysis on tracing paper of room K 0.17 (own work)



Fig. 59 Analysis on tracing paper of coworking space in the south wing (own work)



## Conclusions

Color in this research is a recorder of time, an interpreter of identity, and a bridge between memory and new life. It has shaped the atmosphere, purpose, and cultural symbolism across history, from ancient times to modern interiors. However, in deteriorated heritage contexts, it often struggles to survive. This thesis placed color at the front line of adaptive reuse, positioning it as a primary narrative and design tool to connect past and present.

Through the theoretical framework, we see the influence of color in atmosphere, identity, and user behaviour, and their historical layers act as documents of societal change. Cultural, perceptual, and material studies clarified that the challenge does not stand between preservation and transformation, but the reinterpretation of historical colors that achieve the honoring of cultural identity, safeguard material authenticity, and acquire contemporary spatial needs. The balance between these factors stands as an anchor of adaptive reuse here.

After analyzing several case studies, three strategies emerged: 'Trace', 'Eco', and 'Fusion'. They represent different levels of intervention, ascending in scale respectively. 'Trace' preserves the accumulated layers of time with minimal change, 'Echo' reinterprets and mirrors the remains, creating new dynamic dialogues, and 'Fusion' presents new color identities that seek to conserve and reshape traces while balancing them with contemporary needs.

'Trace', as seen in Palais de Tokyo,

Het Predikheren, and Battersea Arts Centre, preserves color in its aged state, treats it as a found artwork, and adjusts the environment to meet essential functional needs. 'Echo', in Famous, KANAL, and the Temporary Gallery, in Shichengzi Village, reactivates color through materials and shades that connect directly to the heritage context while shaping a renewed spatial atmosphere. 'Fusion', in Nostra Signora della Costa and M'ARS, operates color as a catalyst for transformation, allowing distinct interventions to inform new uses while constantly referencing the building's chromatic history.

In the Castle of Heers, these strategies revealed the complexity of a dilapidated site where preservation, transformation, and invention coexist. 'Trace' treated the most intact rooms, allowing the continuation of their existing pigments and material qualities as a dominant voice. 'Echo' layered contemporary needs over the castle's faded tones and ensured the equal presence of memory and modern function. 'Fusion' reshaped the most deteriorated spaces and presented new, strong identities derived from the building's chromatic traces.

Finally, this thesis proposes that color in adaptive reuse is an act of translation. It seeks to reinterpret this heritage element to keep it culturally and sensorially alive. In the case studies and the Castle of Heers, color reflects the building's past and its capacity to host new stories.

# CONCLUSIONS



Aggelakopoulou, E., Bakolas, A. Investigating polychromy on the Parthenon's west metopes. *Archaeol Anthropol Sci* 16, 96 (2024). <https://doi.org/10.1016/j.jas.2022.105553>

An Etymological Dictionary of Astronomy and Astrophysics - English-French-Persian. <https://dictionary.obspm.fr/index>.

ArchDaily. "Battersea Arts Centre / Haworth Tompkins." January 22, 2021. Accessed July 21, 2025. <https://www.archdaily.com/910491/battersea-arts-centre-haworth-tompkins>.

ArchDaily. "Nostra Signora della Costa Cultural and Experiential Training Center / caarpa." March 4, 2025. Accessed July 23, 2025. <https://www.archdaily.com/1027433/nostra-signora-della-costa-cultural-and-experiential-training-center-caarpa>.

ArchDaily. "Temporary Gallery in Shichengzi Village / Fuyingbin Studio." October 9, 2019. Accessed July 16, 2025. <https://www.archdaily.com/926050/temporary-gallery-in-shichengzi-village-fuyingbin-studio>.

Boie, Gideon. "The Gay Architecture: On the 'Famous' Project by aDVVT." BAVO. 2017. <https://www.bavo.biz/the-gay-architecture-on-the-famous-project-by-advvt>.

Bonneure Kristien, "Maak kennis met Het Predikheren in Mechelen: van barok klooster en strenge kazerne tot bibliotheek met een ziel". VRT NWS. Published August 31 2019 <https://www.vrt.be/vrtnws/nl/2019/08/29/maak-kennis-met-het-predikheren-in-mechelen-van-klooster-en-kaz/>

Centre Pompidou. "KANAL-Centre Pompidou." Accessed June 26, 2025. <https://www.centrepompidou.fr/en/the-centre-pompidou/international/kanal-centre-pompidou>.

Cho, Ji Young, and Joori Suh. "Spatial Color Efficacy in Perceived Luxury and Preference to Stay: An Eye-Tracking Study of Retail Interior Environment." *Frontiers in Psychology* 11 (2020): 296. <https://doi.org/10.3389/fpsyg.2020.00296>.

De Caigny, Sofie, Hülya Ertas, and Bie Plevoets, eds. AS FOUND: Experiments

in Preservation. Antwerp: Flanders Architecture Institute, 2023.

Didelon, V. (2008). Doing without architecture: Reflections on the renovation of the Palais de Tokyo. In *Looking at European architecture: A critical view* (pp. 182–192). Brussels: Civa, <https://www.researchgate.net/publication/272814725>.

ECHO Definition & Meaning | Dictionary.com. <https://www.dictionary.com/browse/echo>

Glibert, Jean. Jean Glibert – Site officiel. Accessed July 24, 2025 <http://www.jeanglibert.com/>

Glibert, Jean. Station de Métro Mérode. 1976. Accessed July 24, 2025 <http://www.jeanglibert.com/index.php?/1976/station-de-metro-merode-/2/>

Kanal Architects representative. Remarks during site visit at Centre Pompidou, Brussels, April 2, 2025.

Khanzadeh, Masoumeh. "Beyond Aesthetics: Emotion, Atmosphere, and Cultural References through Color in Interior Architecture." *Jass Studies–The Journal of Academic Social Science Studies* 17, no. 101 (Autumn 2024): 49–64. <https://doi.org/10.29228/JASSS.77266>.

"MARS Centre for Multimedia Arts in Abrau-Durso / NOWADAYS office" 14 Dec 2016. ArchDaily. Accessed 24 Jul 2025. <https://www.archdaily.com/801371/mars-centre-for-multimedia-arts-in-abrau-durso-nowadays-office> ISSN 0719-8884

Molada-Tebar, A., Á. Marqués-Mateu, and J.L. Lerma. "Correct Use of Color for Cultural Heritage Documentation." *The International Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences IV-2/ W6* (2019): 107–114. <https://doi.org/10.5194/isprs-annals-IV-2-W6-107-2019>.

Plevoets, Bie, and Koenraad Van Cleempoel. *Adaptive Reuse of the Built Heritage: Concepts and Cases of an Emerging Discipline*. New York: Routledge, 2019. Pages 145–150.

Provincie Limburg. Provinciaal Ruimtelijk Uitvoeringsplan (PRUP) 'Kasteel van Heers'. Heers: Provincie Limburg, 2013.

Reed, Ronald. *Color Plus Design*, 3rd Edition: Transforming Interior Space. Fairchild Books USA, 2023.



## Bibliography

Serra, Juan. “Three Color Strategies in Architectural Composition.” *Color Research and Application* 38, no. 4 (2013): 238–250. <https://onlinelibrary.wiley.com/doi/10.1002/col.21717>.

Tucker, Lisa. “The Relationship between Historic Preservation and Sustainability in Interior Design.” In *The Handbook of Interior Design*, edited by Jo Ann Asher Thompson and Nancy H. Blossom, 381–392. Chichester, UK: John Wiley & Sons, 2015. <https://doi.org/10.1002/9781118532409.ch22>.

Ulusoy, Begüm, Nilgün Olguntürk, and Rengin Aslanoğlu. “Colour Semantics in Residential Interior Architecture on Different Interior Types.” *Color Research & Application* 45, no. 5 (2020): 941–952. <https://doi.org/10.1002/col.22519>.

Vande Keere, Nikolaas, Philippe Swartenbroux, and Linde Van Den Bosch. “Introduction Design Studio sem. 1.” Presentation, Master Adaptive Reuse & Herbestemming, Faculty of Architecture and Arts, UHasselt, September 21, 2021.



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