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Cultural Transmission through Industrial Heritage Architecture: Van Nellefabriek

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Abstract

Today, many industrial structures are out of use for various reasons such as automation, changing demands of the market and consumers, insufficient infrastructure and architectural traits. Some of these structures are considered industrial heritage and are protected. Industrial heritage sheds light on the developments of societies in certain periods and has an impact on their culture. Therefore, they are unique representators.

The protection of various heritage structures and ensuring their use by conservation and restoration of them appropriately are important in terms of both reflecting and transmitting the culture of the time to which the structure belongs. This study aims to investigate whether the Van Nelle factory, listed as a heritage structure by UNESCO, encourages cultural transfer. During the research process, the issues of industrial heritage and culture and the transfer of culture through physical spaces were examined in detail. The Van Nelle factory is included in the research as a case study.

Inspection of the intertwined relationship between cultural transmission and the conservation of historic buildings is another aspect of the study. The impact of effective and reversible interventions has been tried to discover.

1. INTRODUCTION

The Industrial Revolution, which began in the eighteenth century, brought about great changes in many areas of society. Many branches of industry have developed based on the needs arising in production and cities have been shaped with the impact of these developments (Uysal & Manav, 2024). Since the industrial revolution modern societies have started to develop and change, this metamorphosis occurred in every portion of civilization. It is only natural to see the outcomes of this tidal wave in architecture and space planning. Building types, forms, and scales have been drastically changed. One of these buildings' forms are industrial facility. Although they existed before the Industrial Revolution, the revolution marked a transformative leap in scale, efficiency, and economic impact. In time, some factors lead to a decrease in the need for facilities like this such as the growth of international trade networks, outsourcing materials, technological advances like automation, environmental and health concerns, and urbanization. Eventually, most of these buildings were abandoned without any sufficient usage or solution to enhance their desirability once again.

Culture is a definite norm for human existence. Every individual in a society acts upon their own culture. These particular cultural systems are created by the individual's environment. Gradually, with the contributions of old and new generations, cultural entities are transferred. This transfer process is called cultural transmission, which is the essence of cultural continuity and, from a greater spectrum, of humanity. We may define many cultural elements, even group them as tangible and intangible. Tangible cultural elements include architectural productions as well. The relationship between building and the builder has two ways, both influence one another. Buildings stabilize social life. They give structure to social institutions, durability to social networks, persistence to behavior patterns. What we build solidifies the

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society against time and its incessant forces for change (Gieryn, 2002). Naturally, construction and design are culturally infused.

Remnants of the past hold great importance for cultures. Since architecture and culture are inseparable, buildings, especially heritage buildings, may be considered strong cultural transmission tools. They influence local and global culture by articulating the way of life of the prior members of the community. Thus, they need utter protection. Successful protection would help create a long-lasting cultural landmark.

2. METHOD

This study aims to explore the relationship between cultural transmission and built heritage, specifically focusing on architectural heritage. Architectural heritage encompasses structures of various sizes and functions. For this research industrial heritage category had been selected. Industrial heritage includes a diverse range of structures, effectively showcasing the materials used, construction techniques, and architectural styles of their respective periods. Therefore, these types of structures have been chosen as the focus of this study.

A qualitative case study approach held to examine the relationship between cultural transmission and industrial heritage. This method considered suitable for analyzing how conservation facilitates cultural transmission within historical contexts. Van Nellefabriek factory had been chosen as a case example. The primary reason for selecting this particular building is its designation as a UNESCO World Heritage Site, which has been recognized since 2014. Information and resources about the building were gathered from UNESCO's official website dedicated to the Van Nellefabriek. The restoration project of the Van Nelle factory was examined as a case study at the Technical University of Delft in the Netherlands, under the instruction of Wessel de Jonge. Data and visual materials were collected from the TU Delft case study as well as from a video describing Jonge's project.

Two key factors were considered in assessing the relationship between structure and cultural transmission: authenticity and integrity. These evaluation criteria were supported by the ICOMOS report of listed buildings for Van Nelle. This report provides detailed information about the original factory compound, the restoration process and the factors influencing its listing, serving as a valuable resource. Artifacts from the report regarding authenticity and integrity were used to create two tables. These tables serve as supportive elements in determining whether the factory can be recognized as a cultural transmitter.

3. INDUSTRIAL HERITAGE AND CULTURE

The Nizhny Tagil Charter (2003) defines Industrial Heritage as follows: 'Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted, and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education.' Based on this definition, it is possible to state that industrial heritage has a broad spectrum of artifacts to consider.

Industrial heritage is deeply connected to industrial archeology. While industrial heritage covers built or tangible elements, industrial archeology is responsible for researching, discovering, and recording heritage materials. Both co-exist except archeology is a little more comprehensive concept. As Richard Stinshoff (2013) emphasizes, practitioners of this discipline, from the beginning, used to refer to the physical remains of the industrial past by the collective term ‘industrial heritage’ as a legacy for whose protection and understanding Industrial Archaeology’s stewardship would be crucial.

The roots of industrial heritage go back to the 1940's. The United Kingdom might be seen as a pioneer in defining and protecting industrial heritage. According to British historian Barrie Trinder (1981), around 1940’s British people changed their perspectives on industrial vestiges and transformed their understanding from ugly to a valuable asset. This change was achieved and supported by the author L.T.C. Roth. Roth's

efforts and works were in a local state. Recognition of industrial assets as heritage at a global level did not occur until the 1970's. The First International Congress on the Conservation of Industrial Monuments (FICCIM) gathered in 1973 at Ironbridge, United Kingdom. This congress marks the first international step to the protection of industrial heritage. Followed by the second congress (SICCIM) in 1975 and the third one in 1978 total of 15 congresses listed on the official TICCIH website. The third one marks a name change from Industrial Monuments to Industrial Heritage (Saner, 2012).

With the influence of conferences, specifically the first and second, the need for an official organization focused on industrial heritage arose. Thus, The International Committee for the Conservation of the Industrial Heritage (TICCIH) was founded on July 4, 1978. TICCIH is the first international organization established solely interested in industrial heritage. Regarding heritage and protection of related artifacts, ICOMOS should be addressed as the most influential and extensive organization. On November 10, 2014, a Memorandum of Understanding was signed (TICCIH, Memorandum of Understanding, 2014) between TICCIH and ICOMOS which helped TICCIH to be more influential.

There is a general intersection point in the relationship between culture and all types of heritage. This point is memory. Without memory, a sense of self, identity, culture, and heritage is lost (McDowell, 2008). Thus, the existence of heritage is a form of security for memory and culture. Heritage also has the power to create its own cultural landscape. In terms of this creation industrial entities play an important role in particular. It is common to find regional or urban settlements located closely or centered around those structures. By studying an industrial heritage, the site it had built on and its surroundings could narrate crucial details about the former citizens of that specific region. Information gathered this way presents a groundwork for understanding cultural accumulation.

Integrating industrial heritage into modern urban settlements creates a multi-dimensional cultural area. As Luis Torres (2018) emphasizes cities are by far the largest creation of humanity. Cultural entities that contain representations from the past, via the present, to the future, running through the entire cultural evolution of the 'city as object'. Proper integration may create cultural transaction areas where heritage building undertakes the role of the conveyor. Keeping heritage buildings in use with different purposes will contribute to sustainability in both environmental and cultural dimensions.

4. CULTURAL TRANSMISSION THROUGH PHYSICAL SPACES

Knowledge since the start of humanity is conveyed from one generation to the other with the intent of creating the ultimate network of information which is the basis of the everyday lives of people. Conveyed cumulative knowledge has different aspects, and culture is one of these. Naturally, culture has a unique transfer mechanism. Bissin and Verdier (2008) explain this as follows: 'Preferences, beliefs, and norms that govern human behaviour are partly formed as the result of genetic evolution, and partly transmitted through generations and acquired by learning and other forms of social interaction. The transmission of preferences, beliefs and norms of behaviour which is the result of social interactions across and within generations is called cultural transmission.' Cultural transmission is substantial for the continuity of diversity.

Cultural transmission is a method of learning, and a theory has been developed to explain how it occurs, known as cultural transmission. Generally, there are three types of cultural transmission: vertical, oblique, and horizontal. Taylor & Thoth (2011) explain vertical transmission as passing on cultural elements from parent or caregiver to children, horizontal as similar to peer learning because transmission occurs between members of the same generation, and oblique as a more diffuse system due to unrelated individuals from one generation pass on culture to the next. The transmission type and the conveyor are also important factors in the process.

Clifford Geertz (1973) explains culture concept as a pattern of historically transmitted meanings manifested in symbols, a system of inherited concepts expressed in symbolic forms through which humans communicate, preserve, and develop their knowledge of life and attitudes toward life. The symbols, systems, and concepts mentioned above are all abstract forms of information. Intangible knowledge becomes concrete when embodied by an artifact. This embodiment also represents a transmission. Any

object, document, or material could be a transmitter. Once they are protected and properly preserved, they can facilitate communication between generations, transcending the barriers of time.

Human life is centered around daily routines and activities, shaped by their combination. Daily life differs across societies due to unique habits, and this variation can also be observed at a regional level. Individuals spend most of their time in defined spaces. These areas are usually reserved and designed for a specific activity such as education, work, or healthcare. Space has an important role in strengthening cultural change, because the expected behavior patterns within a particular space reflects the specific cultural values (Ettehad, Karimi, & Kari, 2014). This is where architecture comes forward. By defining, designing and building places architecture helps to create meaningful context areas for culture flourishment and transfer. Therefore, it is a crucial component of culture in more than many aspects. In his research Ashadi (2020) demonstrates the relationship between culture and architecture as shown in Table 1.

Table 1. *The model of the relationship between culture and architecture*

Architecture and culture	Architecture	Scope of culture
Functional	As a result of social components interaction	Sociology
Conceptual	As an artistic product that includes an end elevation of the mind	Aesthetics
Functional Conceptual	As a matter of human's life and includes and effective on actions	Anthropology
Perceptual	As a result of mental attitude to the surrounding built environment	Psychology

Buildings incorporate culture in many ways. In architectural design projects, culture can be embodied in appearance, materials, spatial layout and decoration (Wang, Atipattayakul, & Sengna, 2024). Interior and exterior cultures are cultivated in a unified manner. Regarding appearance, the facade serves as the first impression of every structure and conveys the cultural elements directly through observation. Material selection is another aspect. Specific material choices and sources of materials also represent the cultural values of societies. The intersection of material and culture can be observed through building techniques and craftsmanship. Spatial layout and decoration directly relate to habitants' lifestyles, manners, and activities. These aspects form culture. Thus, spatial planning and decoration might be considered the most culturally specific areas of a building.

Several researchers tried to uncover the connection between cultural transmission and architecture. Voogt, Maillot, Lang, and Eerkens focused on architectural traits' transmission in the Near East and the Meroitic Kingdom while Bill Hillier explored modern European constructions to find meaningful connections. Both studies are good examples, proving that buildings and culture influence each other. Regional differences might affect the way of transmission but it occurs anyhow.

For heritage structures to effectively serve as a medium for cultural transmission, their original components must be visible and functional. When assessed from an interior perspective, the structure's integrity—considering its dimensions, layout, materials, and decorative elements—is crucial for understanding and conveying its cultural values. This is where building preservation becomes essential. As Milligan (2007) suggests, historic preservation presents an avenue for studying how the built environment, specifically the historic built environment, is given meaning and the processes through which it shapes and constrains interaction. Therefore, heritage protection highly contributes building's role as a transmitter. Culture, architecture, and conservation share mutual roots which make them inseparable in many ways. As The Australia ICOMOS Burra Charter, 2013 states: 'Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Preservation and conversation of these cultural entities can create a bridge for transmission.

5. VAN NELLEFABRIEK

The original Van Nelle factory, known in Dutch as the Van Nellefabriek, was designed by architects Johannes Brinkman and Van der Vlugt between 1925 and 1931 in Rotterdam, Netherlands (Figure 1). Commonly referred to as a 'sunlight factory' due to its predominantly transparent glass façade, it is regarded

as one of the most modern manufacturing facilities in the country. As Wessel de Jonge (2021) describes, prior factory constructions were limited in terms of the allowance of natural light in the interior spaces. This emphasizes Van Nelle's uniqueness and importance. The factory had a separate administration block that showed the same transparency (Bergeijk, 2012). The design also incorporates concrete in its construction, a clear representation of the influence of the Modern Movement in architecture.

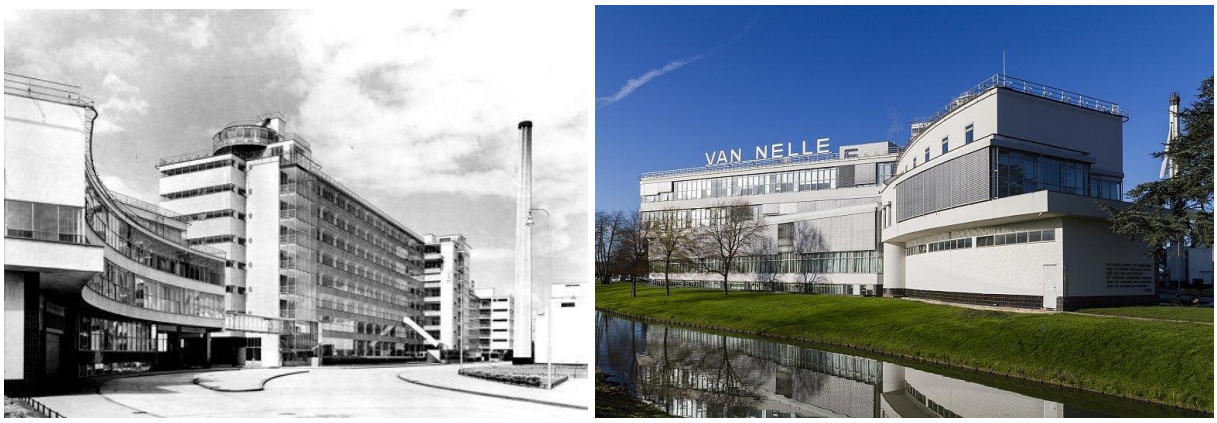

Figure 1. *Van Nellefabriek Exterior Views [22], [25]*

The factory produced tea, coffee, and tobacco products. There are three factory buildings on the site. Essentially, the factory consists of three different buildings. The largest and tallest of them, the tobacco factory (1926-1929), is in the centre. To the north of it is the coffee factory (1928-1930), which is slightly less tall, followed by the tea factory (1928-1929), whose height is in turn lower. To the south, the alignment of the curtain wall facades is continued by the office building (1928-1930) which forms a concave line in the perspective. The run of glass curtain walls is some 220 m long. It is dominated by horizontal lines, which are punctuated by three vertical stair well blocks, the tallest of which culminates in the rotunda-shaped tea room (1926-1929), which provides a panoramic view of the factory and the surrounding area (Figure 2).

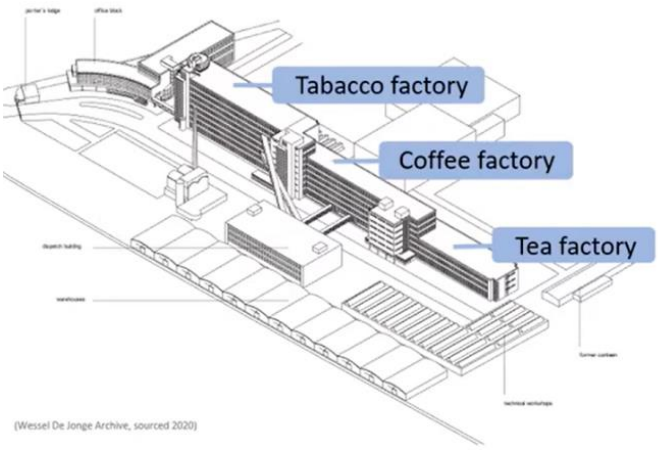

Figure 2. *Van Nelle Factory building distribution [26]*

Opposite the main architectural ensemble and the series of glass curtain walls, there is a series of functional buildings along the other side of the internal street: the boiler house and its lofty chimney (1927-1929), the large dispatching hall (1929-1930) with five overhead bridges linking it to the factories, the warehouses (1942-1943 and 1967), and finally along the canal and closing off the space to the north, the workshop building (1929-1930) (ICOMOS, 2014). Along with the curtain wall, the most important architectural feature of the building is the octagonal 'mushroom' columns (Figure 3).

Figure 3. *Mushroom Columns, Van Nellefabriek Interior [27]*

Van Nelle's compound exemplifies numerous architectural traits representing a pivotal era in terms of design, construction techniques, and usage of new materials. Thus in 2014, Van Nellefabriek was recognized as a 'World Heritage' and listed in the heritage buildings list by UNESCO.

5.1. Restoration Process

Architect Wessel de Jonge carried out Van Nelle's restoration project. The redevelopment project, involving the conservation and adaptive reuse of all ten buildings and the outdoor space, started in late 1998. As conceived by its spiritual father, Eric Gude (1953-2018), this endeavor aimed to create a hub for the creative industry of Rotterdam: the 'Van Nelle Ontwerp Fabriek' (Design Factory) (van Hevele & de Jonge, 2024).

According to video explaining the renovation story on the TU Delft case website (2020), the architect created a strategy code for Van Nelle's restoration project. He named this approach as CRASH. C stands for Conservation, R for Reuse, A for architecture, S for Sustainability, and H for Heritage. He also color-coded every aspect. There are two colors used for coding: blue and green. Based on Wessel de Jonge's explanations, code Blue could be considered for mostly successful and highly protected aspects whereas code Green is awarded for the aspects where there is some degree of sacrifice in terms of conservation (Table 2).

Table 2. *Wessel de Jonge CRASH color codes*

INTERVENTION - COLOR CODE TABLE		
CRASH CODE	COLOR	
INTERVENTION TYPE	BLUE	GREEN
CONSERVATION		
REUSE		
ARCHITECTURE		
SUSTAINABILITY		
HERITAGE		

For the Conservation he awarded it as blue and stated '*Almost all that was still there has been retained and conserved, minor missing elements were restored and completely missing elements were not reconstructed*'. Reuse was also awarded blue by the architect. He explains this '*From an obsolete and empty building into a well-used workspace. The new use is quite compatible with the old building.*' For the architecture, de Jonge considered green: '*The volumetry, transparency, sight lines, nocturnal image, etc., and the modern architectural spirit of the factory has been carefully kept and conserved. At least from the outside.*' To figure out an effective use in terms of new function, interior spaces of the factory building had been installed with partially glazed partition walls that separated and divided interiors (Figure 4), (Delft, 2020).

Figure 4. *Office spaces divided by partitions [28]*

Restaurant area (Figure 5) and ground floor event spaces are kept without much intervention with the aim of visitors should understand and perceive the original place. One important aspect regarding the interventions is that de Jonge states were largely reversible except for flooring (Figure 6), (Delft, 2020).

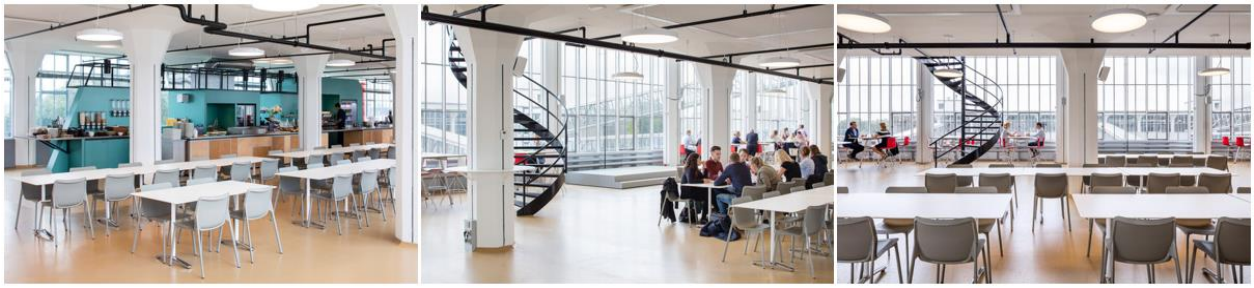

Figure 5. *Van Nelle Restaurant area interior [29]*

Again, for sustainability he awarded green. Both energy efficiency and conservation are secured by a double-skinned façade. However, he admits that in terms of sustainability, a lot more could be done, even with the 1999 standards. As for the last aspect Heritage, he was awarded as green. De Jonge explains this aspect: '*Intervention has little negative impact on the heritage like significance. Even opening up the premises made the heritage values more available to the public at large the interior spaces have largely been altered though in a sensitive way. Because we left some spaces relatively untouched you can still tour and enjoy the building as it originally was.'*, (Delft, 2020).

Figure 6. *Van Nelle Factory flooring before renovation [30]*

Once the restoration works were completed, the Van Nelle Factory started operating as an office and event venue. Users can rent office spaces of different sizes. This marks a complete change in function, allowing Van Nelle to continue its operations.

5.2. ICOMOS Evaluation and Listing

Van Nellefabriek was listed as a heritage building in 2014. Wessel de Jonge notes that the factory was listed after all the restoration project interventions were completed (Delft, 2020). The report regarding the listing contains justification for inscription, integrity, and authenticity. This chapter explains the reason behind Van Nelle's nomination as a heritage building based on a comparative analysis made by the State Party. Five aspects are listed related to the nomination of the building (Table 3). ICOMOS considers that this justification is for the most part appropriate, and that the Van Nellefabriek is indeed an icon of Modernism in industrial architecture (ICOMOS, 2014).

Table 3. *ICOMOS articles for justification of outstanding universal value.*

ICOMOS	
JUSTIFICATION OF OUTSTANDING UNIVERSAL VALUE	
NUMBER	VALUE
1	It is an example of industrial urban planning, constructed in an open polder area, close to a canal, roads and the railway; the urban planning, and the architectural choices, represent the combined achievement of the humanistic entrepreneur who commissioned the factory and a team of architects and engineers taking their inspiration from Modernism.
2	Through its industrial urban planning approach, and its architecture which is open both in spatial terms and in terms of admitting daylight, the Van Nellefabriek quickly became an icon of Modernism. It is considered to be a particularly accomplished and coherent example of the way an industrial complex can be integrated with its environment.
3	The facades make systematic and large-scale use of curtain walls, consisting of continuous windows in metal frames, giving them a specific tone which is both sober and bright.
4	The general architectural choices reflect outstanding use of verticality and horizontality, to maximise the functionality of the space and its overall aesthetics.
5	It reflects an open and progressive design of the interior spaces based on the rationalisation of the processing of food products (tea, coffee and tobacco) and adaptability to changes in industrial processes.

Another important aspect of the report is the three criteria related to the building's cultural importance (Table 4).

Table 4. *ICOMOS cultural criteria which inscription proposed*

ICOMOS			
CULTURAL CRITERIA			
CRITERION		ICOMOS' EXPLANATION	ICOMOS' CONSIDERATION
(i)	Represent a masterpiece of human creative genius	ICOMOS considers that the Van Nellefabriek is one of the most accomplished industrial installations of the inter-war years, in terms of modernism in the industrial world and functionalism in architecture. The synthesis that it represents however brings together trends in architecture and in the planning of industrial areas that considerably pre-date the Van Nellefabriek, and the values advanced here are explicitly recognised under criteria (ii) and (iv).	ICOMOS considers that this criterion has not been justified.
(ii)	Exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design	ICOMOS considers that the Van Nellefabriek embodies the bringing together and use of technical and architectural ideas that were born in various parts of Europe and North America, just before World War One and in the years that followed. It is successful in terms of its location with its harmonious functional relationship with its environment, and its accomplished architectural realisation. It became one of the great international icons, in Europe and the Americas, of Modernism in the industrial field, and constitutes an exemplary contribution by the Netherlands to this movement. It illustrates the long-established importance of the port of Rotterdam in the international food product trade.	ICOMOS considers that this criterion has been justified.
(iv)	Be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history	ICOMOS considers that the Van Nellefabriek is technically one of the most accomplished industrial complexes ever built, and one of the great aesthetic successes of Modernism and Functionalism in architecture during the inter-war period. In terms of industrial architecture, it is an eminent example which illustrates the values of the relationship with the environment, particularly with the canals and transport networks, of rational organisation of production and mechanical handling flows, and of maximum use of daylight through the large-scale use of a curtain wall of glass reinforced with iron. It expresses the values of clarity, fluidity and the opening up of industry to the outside world.	ICOMOS considers that this criterion has been justified.

Two suggested criteria were accepted as justified by ICOMOS, while one was rejected. As the report describes, even though Van Nelle is a good and strong example of an industrial heritage other buildings that also reflect the same architectural traits traced back to the same period. The assessment concludes with the statement 'ICOMOS considers that the nominated property meets the conditions of integrity and -authenticity, and meets criteria (ii) and (iv).'

ICOMOS's report presents a largely positive outlook for the restoration project. The only noted downside is the building's resemblance to other examples of industrial architecture. The echoes of modernist architecture and industrialism could be observed all across the European continent. Thus, Van Nelle's similarity with other architectural examples can be considered a natural outcome.

6. CONCLUSION

Van Nelle's restoration and cultural transmission connection could be evaluated using two criteria: protection of authenticity and unique features of the building after interventions in other words integrity. The evaluation is supported by the ICOMOS report on Van Nelle.

The listing happened after restoration. Thus, it could be determined as a successful intervention process. Here, it can be thought that authenticity and integrity are intertwined at some level. Integrity can be interpreted as no apparent loss of any part of the structure. On the other hand, authenticity is a concept that includes the preservation of special and unique parts of the structure. It can be thought that authenticity will also be preserved under conditions where integrity is achieved. However, this is not always the case. While all parts of the structure are physically preserved, in other words, they are not demolished, fragmented, or destroyed, interventions carried out on a superficial scale will prevent the original texture from being seen and might damage authenticity.

For both integrity and authenticity, the Report (2014) finds the building intact. The following phrases supports this outcome:

- ICOMOS considers that the conditions of integrity, in terms of urban composition (locations of buildings and organisation of territory, functional relationships, panoramic views, etc.) and architectural terms, from the various exterior and interior aspects, are satisfactory.
- ICOMOS considers that the restructuring/restoration of the property undertaken for economic reasons between 2000 and 2006 has been well integrated into a property that has been generally well maintained, and which has undergone no major reconstruction or alteration since it was first

> built. The work has been conducted with great care, in a model works project which is today considered to be a benchmark. The various aspects of authenticity of the property have thus been satisfactorily maintained, and this authenticity is clearly visible to the Van Nellefabriek's visitors and users.

Based on the elaborations and explanations provided by the ICOMOS, it is possible to consider Van Nelle factory as a good and solid example of a cultural transmitter.

However, a few remarks can be emphasized. As the architect described, the only loss of identity occurred for the flooring. Protection of the original flooring could be a positive contribution in terms of culture. Original flooring would reflect the period's unique material selection and construction techniques. Like most of the industrial buildings, Van Nelle had an uninterrupted interior space in terms of mass, volume and spacing. Re-designing the interior spaces for the new function to work out smoothly is a right path to follow. Dividing some areas with partitions may also created some loss. But this intervention did not apply for all the interior spaces and it is reversible which eventually makes it a positive approach. Even with these two factors, Van Nelle could be experienced by the users an almost completely original structure. This interaction would create cultural transmission. As a strong example of modern industrial complex with open-plan interior, the Van Nelle Factory serves as an exemplary case for the adaptive reuse of large-scale industrial buildings, particularly in their transformation into public or mixed-used spaces.

REFERENCES

[1] Ashadi, A. (2020). Positioning Architecture in Culture. *DIMENSI: Journal of Architecture and Built Environment*, 27-33.

[2] Bergeijk, H. v. (2012). *Dutch Office Building 1900–1940. A Question of Style or Mentality?* Retrieved from International Council of Monuments and Sites: https://journals.ub.uni-heidelberg.de/index.php/icomoshefte/article/view/20571

[3] Bisin, A., & Verdier, T. (2008). Cultural Transmission. In S. N. Durlauf, & L. E. Blume, *The New Palgrave Dictionary of Economics* (pp. 1-8). Tottenham Court Road: Macmillan Publishers Ltd.

[4] de Voogt, A., Maillot, M., Lang, J. W., & Eerkens, J. W. (2019). Cultural transmission of architectural traits: From the Near East to the Meroitic kingdom. *Journal of Archaeological Science: Reports*, 1-11.

[5] Delft, T. U. (2020, April 2020). *CRASH Case: Van Nelle Factory*. Retrieved from TU Delft: https://www.tudelft.nl/en/architecture-and-the-built-environment/research/research-stories/respectful-redesign-is-a-true-craft/case-van-nelle-factory

[6] Ettehad, S., Karimi, A. R., & Kari, G. (2014). The Role of Culture in Promoting Architectural Identity. *European Online Journal of Natural and Social Sciences*, 410-418.

[7] Geertz, C. (1973). *The Interpretation of Cultures.* New York: Basic Books Inc.

[8] Gieryn, T. F. (2002, February). What Buildings Do. *Theory and Society*, pp. 35-74.

[9] Hillier, B. (1993). Specifically Architectural Theory: A Partial Account of the Ascent from Building as Cultural Transmission. *The Harvard Architectural Review*, 9-27.

[10] ICOMOS. (2014, March 6). *Van Nellefabriek.* Retrieved from UNESCO: https://whc.unesco.org/uploads/nominations/1441.pdf

[11] Jonge, W. d. (2021). Concrete heritage in the Netherlands. Valuation and conservation of concrete and reinforced concrete structures. *Architectus*, 39-49.

[12] McDowell, S. (2008). Heritage, Memory and Identity. In B. Graham, & P. Howard, *The Ashgate Research Companion to Heritage and Identity* (pp. 37-53). Hampshire: Ashgate Publishing Limited.

[13] Milligan, M. J. (2007, December 22). Buildings as History: The Place of Collective Memory in the Study of Historic Preservation. *Symbolic Interaction*, pp. 105-123.

[14] Saner, M. (2012). Endüstri Mirası: Kavramlar, Kurumlar ve Türkiye'deki Yaklaşımlar. *Planlama Dergisi*, 53-66.

[15] Stinshof, R. (2013). Between History and Heritage: The Debate about Industrial Archaeology in Britain. In P. Itzen, & C. Müller, *The Invention of Industrial Pasts: Heritage, political culture and economic debates in Great Britain and Germany, 1850–2010* (pp. 36-57). Augsburg: Wißner-Verlag.

[16] Taylor, M. J., & Thoth, C. A. (2011). *Cultural Transmission. In: Goldstein, S., Naglieri, J.A. (eds) Encyclopedia of Child Behavior and Development.* Retrieved from Springer Nature Link: https://doi.org/10.1007/978-0-387-79061-9_755

[17] TICCIH. (2003, July 17). *The Nizhny Tagil Charter For The Industrial Heritage.* Retrieved from The International Committee for the Conservation of the Industrial Heritage: https://ticcih.org/about/charter/

[18] TICCIH. (2014, November 10). *Memorandum of Understanding.* Retrieved from The International Committee for the Conservation of the Industrial Heritage: https://ticcih.org/wp-content/uploads/2014/12/MemorandumOfUnderstandingNov102014.pdf

[19] Torres, L. (2008). Industrial Heritage: The Past in the Future of the City. *WSEAS Transactions on Environment and Development*, 687-696.

[20] Trinder, B. (1981). Industrial Archaeology in Britain. *Archaeology*, 8-16.

[21] Uysal, B., & Manav, A. (2024). An Industrial Heritage in Tarsus: Yuvam Brick Factory. *Gazi University Journal of Science Part B: Art, Humanities, Design and Planning*, 277-290.

[22] van Hevele, E., & de Jonge, W. (2024). Documenting twenty Years of a World Heritage Property's Redevelopment. *DOCOMOMO Journal*, 96-101.

[23] Wang, J., Atipattayakul, C., & Sengna, K. (2024). The Relationship Between Architectural Design Style and Architectural Culture. *Architecture Engineering and Science*, 100-104.

[24] URL-1 Van Nelle factory historical exterior view. https://en.wikiarquitectura.com/building/van-nelle-factory/#van-nelle-11 Access Date: 29.11.2024

[25] URL-2 Van Nelle factory current exterior view. https://exploringthenetherlands.com/van-nelle-factory/ Access Date: 30.11.2024

[26] URL-3 Van Nelle factory tea, coffee and tobacco factories distribution. https://youtu.be/GzQwzQ0dy3U Access Date: 07.12.2024

[27] URL-4 Van Nelle Factory interior view, mushroom columns. https://en.wikiarquitectura.com/building/van-nelle-factory/# Access Date: 03.12.2024

[28] URL-5 Van Nelle factory after restoration, office areas. https://www.vannellefabriekrotterdam.com/en/events/spaces/tureluur/ Access Date: 11.12.2024

[29] URL-6 Van Nelle factory after restoration, restaurant. https://www.architonic.com/en/project/wilkhahn-van-nelle-factory-lunch-restaurant/5104489 Access Date: 11.12.2024

[30] URL-7 Van Nelle Factory flooring before restoration. https://en.wikiarquitectura.com/building/van-nelle-factory/#van-nelle-10 Access Date: 03.12.2024.