

LOCAL APPROACH TO HERITAGE HOUSING PRESERVATION: POTENTIAL FOR ADDING BALCONIES TO TENEMENTS

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Abstract

Among the studies focusing on challenges regarding heritage tenement refurbishment, there is a gap regarding their spatial adaptability to current users' needs. One of the standards in multifamily housing features, which were not common in 19th and 20th-century tenements, is access to a private outdoor space, such as a balcony. Although adding a balcony impacts the appearance of a heritage building, the practice has been commonly implemented at the heritage housing retrofit stage in Germany, Austria and Denmark, while in Poland usually it is not even considered. This paper aims to explore the reasons behind the observed heritage housing conservation approaches. The method includes analysis of legal frameworks and semi-structured interviews with real estate market representatives and municipal heritage preservation practitioners. The paper focuses on the motivation behind the decisions and process of negotiating consents for adaptive interventions and additions significantly impacting protected building substance. The study reveals that despite similar legal frameworks, local practices in Chemnitz, Copenhagen and Vienna, in contrast to Wrocław, emphasize collaboration among stakeholders balancing usability and preservation of original aesthetics. Redefining heritage values, along with the establishment of an organizational framework for collaborative decision-making could trigger change in renovation practice in Wrocław.

Keywords: *Heritage housing preservation practice; Heritage values; Heritage housing adaptability; Social role in heritage conservation.*

Introduction

If the targets are to be met, the pace of the housing stock modernization process should increase from 1% to 3% per year [1]. The imposed requirements endorse the concept of circular economy and promote an extension of the operational stage in a building's life cycle [2]. Housing retrofitting besides lower environmental impact than demolition generates far-reaching social, health, environmental and economic benefits [3]. Approx. 22% of dwellings in the EU were built before 1946 [4]. Historical urban tissue in European cities consists of buildings of heritage value where refurbishment is both necessary and challenging. Both user expectations and legal requirements related to housing change, e.g. in terms of accessibility or energy efficiency. Conservators should aim to reconcile heritage value protection with the changing social and legal environment [5]. To address the residential sector challenges contributing to climate change, such as urban sprawl [6] or urban heat islands [7], retrofitted apartments need to be a viable, attractive alternative to newly built homes. However, apart from improving their energy efficiency, the retrofit needs to secure a healthy and comfortable environment, accessibility, greenery and resistance to extreme natural events [8]. The potential building

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refurbishment intensification is a chance to extend the discourse on retrofitting from the one focused on energy efficiency to a wider reflection on policy regarding the improvement of the urban living standard. However, the developers are reluctant to refurbish heritage houses, since this business model is less profitable and more demanding in legal and technical terms compared to the newly built objects [9].

Recent Discourse on Heritage Preservation with Building Standard Upgrades

The heritage buildings present the culture, art of construction, social conditions and identity of the time they were built to current and future generations [10]. There are two basic approaches regarding heritage renovation historic preservation emphasizes maintaining the original outlook with “repairing the old as the old” and heritage conservation suggests “appropriate updating” allowing the society to “reflect on and reshape their past, grasp the present and plan for the future” and preserve the building by using [11]. The attitude to heritage refurbishment practice varies depending on the “heritage” meaning. The shift from treating the heritage as an object with imposed monumental and aesthetic values to a social and cultural process presenting both: the past time and the evolution to the present, opens the experts’ ‘authorized heritage discourse’ to the perspectives of users of architecture, facility managers or other stakeholders. Therefore the heritage values requiring protection are context-specific and vary depending on the viewpoint [9]. Nevertheless, the residents’ view is rarely considered in literature or decision-making [8]. Since the experts prioritize aesthetics, public money for restoration aims for substantial preservation rather than, e.g., increased energy efficiency that would improve the living standard of dwellers [9]. Nevertheless, according to the ICOMOS report, heritage preservation forges the development of a sustainable society considering environmental, economic and social values [12–14] with movement towards a more human-centered approach [15]. This attitude entails a challenge to find a balance between the continuity and compatibility of the heritage settings and its adaptation in form and function [9, 12]. Apart from the appearance of a building, all the unique components representing a specific construction technology of its time form part of the heritage value [14]. For this reason, exclusive concentration on façade maintenance and its aesthetic values fails to sufficiently address the scope of conservation as outlined by ICOMOS [10]. The latter requires a holistic and integrated renovation approach, recognizing that heritage management involves complex legal, structural, cultural, financial and social constraints in the building development process. Importantly the overall aim is to enhance the cultural heritage usage “for public enjoyment” [13]. Due to the process of changing lifestyles, technologies and standards, the expectations towards residential architecture inevitably change. To avoid abandonment leading to building deterioration, heritage housing needs adaptation to be “preserved by using” [10]. This adaptive re-use strategy prolongs buildings’ lifespan [16] demands an analysis of its spatial typology regarding its past and current state or future needs, to indicate the valuable elements demanding preservation, narrowing down options for adaptability [17]. Building adaptation to new user’s needs, regardless if it means functional change or a standard upgrade, often requires additions due to the need for extra space, accessibility or compliance with current technical regulations. Such interventions may have a positive environmental, cultural, social or economic impact [10] by facilitating new functions and providing continuity for a historical building with “time-specific layers” [17]. Well-designed additions constitute a contemporary layer addressing current needs, while maintaining and enhancing the significance of heritage building stock [10, 18]. Sustainability and, more specifically, energy efficiency, are recognized as key areas of needs to be included in the heritage preservation practice [19].

Currently, energy inefficiency of older buildings is an environmental concern that stimulated a discussion about poor integration of sustainable assessment in heritage preservation [12]. Significant changes in heritage façade are usually forbidden, thus external insulation is not accepted, whereas internal insulation reduces floor area important for dwellers, may hinder internal ornaments or can increase the risk of mold issues with the external

envelope layers [9]. Similarly, the integration of photovoltaic panels with heritage buildings may meet legislative barriers [20]. However, though usually the regulations strictly protect the front façade, they are more liberal about the backyard elevation [21].

In Poland, 18% of urban housing stock was constructed before the WW2 [22]. In Wrocław, 21% of the housing stock and 75% of social housing is located in historical tenements, built at the turn of the 19th and 20th centuries. Approximately 11% of these tenements have never been thermally retrofitted [23] contributing to energy poverty in vulnerable households [24]. The much-needed thermal refurbishment of the historical urban housing could be an occasion to explore the potential for spatial adaptation of dwellings to current dwellers' needs while preserving their unique heritage value.

Balcony Addition as a Test of Heritage Housing Preservation Practice

We lack studies focusing on specific challenges of heritage tenement housing refurbishment in terms of their spatial usability and adaptability to the needs addressed in other housing typologies. The time spent at home extends, among other things due to the popularization of remote work, which may affect residents' overall well-being. For this reason, the apartments have to be responsive to current dwellers' needs. One of the features of a dwelling, perceived as significantly improving the living environment quality and its spatial conditions, is access to private outdoor space, such as a loggia, balcony, terrace or garden [25–27]. The importance of access to private outdoor space was also appreciated by dwellers during covid-19 isolation [28]. Though adding a balcony significantly changes the appearance of a building, it is practiced in post-war blocks of flats in most European countries with that building typology [29].

In the historical multi-family housing stock typically many apartments did not have access to any private outdoor space by design. Nevertheless, e.g. in Vienna, Austria, exemplary precedents of tenement retrofits that include balcony additions became a mainstream practice [30]. However, as most tenements have unique characteristics enhancing or limiting the potential for adding external structures, any façade modifications need to be accepted by the municipal heritage protection office.

Adding balconies to heritage housing during retrofitting is uncommon in Poland. However, it is proposed here that backyard elevations facing the spacious courtyards have a large, so far untapped, potential for adding balconies without compromising the building's heritage values. This potential is worth exploring also due to courtyards proving to be the preferable context for usable balconies [27].

The Research Framework, Aim and Questions

The above-outlined discourse on heritage preservation as well as the challenge of heritage tenements refurbishment that might include adding balconies to backyard facades, therefore improving living standards, have triggered the research focus of this article. Another publication by the same authors “Adding Balconies to Historical Tenements – Local Approaches to the Retention of Heritage Value in Poland, Germany and Denmark” is focused specifically on guidelines regarding the design of balconies added to heritage multi-family houses [31]. The aim of this research is to reflect on approaches to overall heritage housing preservation and local-level decision-making practices in Wrocław, Poland with a comparison to the approach in the above-mentioned countries. The focus is on changing the elevation's substance regarding the challenges of upgrading heritage housing and balancing the values of preservation and usability. The study intends to respond to two research questions:

- Are there any characteristics of legal frameworks shaping heritage housing preservation practices in Poland and other countries with similar tenement housing typologies from the turn of the 19th and 20th centuries, such as Germany, Denmark and Austria?
- What values underpin the heritage preservation practice regarding significant changes influencing the elevation's outlook of the housing tenements in different countries?

The paper is structured as follows: first, the methods are introduced such as desktop study of legal acts as well as semi-structured interviews with heritage conservation offices from different European countries and real estate representatives from Poland. Based on these methods, the legal framework for historical housing modernization is outlined together with the local-level heritage protection practices supporting or limiting changes in the historical housing stock. The discussion focuses on the relevance of the impact of value definition and collaboration between stakeholders in heritage preservation practice and heritage protection perceived as the building stock lifespan extension. Finally, the conclusions focus on recommendations for local-level heritage conservation practice in Poland as well as an outline of further research needs.

Methodology

The research is based on two methods: (i) a desktop study of the relevant legal documents at the national level for Poland, Denmark, Germany and Austria along with scientific articles concerning values in current heritage preservation and (ii) semi-structured interviews with representatives from Polish real estate market and municipal officers shaping negotiations and evaluation of acceptable changes within the renovation process in Wrocław (Poland), Copenhagen (Denmark) and Chemnitz (Germany). For Vienna (Austria) no interviews were conducted as relevant local heritage protection practices in relation to balcony additions proved well documented in the literature [30, 32, 33]. A similar set of interviews underpins the analysis presented in the “Adding Balconies to Historical Tenements – Local Approaches to the Retention of Heritage Value in Poland, Germany and Denmark” article. However, the interviews with architects were not included here, due to a less design-oriented focus on this paper. Each of the selected Austrian, German and Danish cities has vast experience in adding balconies to heritage tenements built at the turn of the 19th and 20th centuries (Figs. 1-4). In Wrocław such experience is scarce, however, the historical urban tissue of the analyzed cities bears a resemblance, in particular with two of the selected cities. The development of Wrocław at the turn of the 19th and 20th century followed the Berlin planning model [34], hence Chemnitz’s and Vienna’s tenements represent similar historical construction contexts.

Thus, in comparison with the experiences from Wrocław (Fig. 1), the other analyzed cases: Chemnitz (Fig. 2), Copenhagen (Fig. 3) and Vienna (Fig. 4), they present constructions that correspond to similar historical contexts.



Fig. 1. Example of a typical housing yard in Wrocław, Poland
(Source: System Informacji Przestrzennej Wrocławia - <http://ukosne.gis.um.wroc.pl/?hg=953>) (left). Typical inner-courtyard elevation. Picture taken in presented courtyard during the fieldwork (right).



Fig. 2. An example of add-on balconies to the backyard elevation of tenement houses situated in quarters, Karl-Liebknecht-Street, Chemnitz, Germany (source: Data license Germany – attribution – version 2.0 <https://www.govdata.de/dl-de/by-2-0> Städtisches Vermessungsamt Chemnitz <https://chemnitz.maps.arcgis.com/>) (left). Balcony additions at backyard elevation. Picture taken in presented courtyard during the fieldwork (right).



Fig. 3. An example of add-on cantilevered balconies to the elevation of pre-war tenement houses situated in quarters, Nørrebro district in Copenhagen, Danmark (source: <https://skraafoto.dataforsyningen.dk/>) (left). Picture from courtyard perspective. By: Nanna Nielsen, source: Stender 2021 (right).



Fig. 4. An example pre-war housing tenements' renovation with balconies' additions, Lobmeyrhof in Ottakring, Vienna, Austria (source: Datenquelle: Stadt Wien – [data.wien.gv.at](https://www.wien.gv.at) <https://www.wien.gv.at/stadtplan3d/#/>) (left). Picture from courtyard perspective. Source: <https://www.architektur-kiener.at/cms/2016/12/21/lobmeyrhof-1160-wien/> (right).

The information about heritage regulation and practices derives from English versions of Monuments Protection Acts from Poland, Austria (Federal State of Vienna), Germany (Federal State of Saxony), or Act on Listed Buildings and Preservation of Buildings and Urban Environments from Denmark. Additionally, peer-reviewed scientific articles written in English or Polish relevant to the research questions were identified through a review of related heritage protection journals, as listed by the Polish Ministry of Science [38], i.e. *Heritage & Society*, *International Journal of Heritage Studies*, *Journal of Cultural Heritage*, *Journal of Cultural Heritage Management and Sustainable Development*, *Journal of Architectural Conservation*, *Studies in Conservation*, *Wiadomości Konserwatorskie*, *Ochrona Zabytków*, as well as a professional journal issued by the Polish Chamber of Architects “Zawód Architekt”. The review included the screening of all titles of papers available through publishers’ websites, followed by reading abstracts considering those with content regarding heritage values and approach to adaptability in preserved buildings. The chosen articles were focused on modernization and preservation practices excluding those concentrated on preservation technology. Finally over 40 papers were selected for further analysis. The content of legal acts was coded and compared in the table (see Appendix).

The rationale for the selection of interviewees was twofold. First, it was to understand the attitudes of relevant actors involved in tenement renovations in Poland (table 1).

Table 1. Interviewees

	Interviewee	Coding	Gender	Date	Time	Meeting type	Interview’s record	
Real estate representative	Real Estate Agent (1)	REA1	Female	25.01.2021	Approx15 min	Telephone	Notes from conversation	
	Real Estate Agent (2)	REA2	Male	29.01.2021	11min	Telephone	Audio record, transcribed	
	Real Estate Agent (3)	REA3	Male	04.02.2021	16 min	Telephone		
	Developer Renovating Tenements	Company manager (1)	DRTM1	Male	23.02.2021	44 min	In Person	
		Sales Department Representative (2)	DRTS2	Female	09.03.2021	29 min	Telephone	
		Sales Department Representative (3)	DRTS3	Female	21.04.2021	38min	Telephone	
Actors involved in negotiation of the allowed interventions of tenements renovation	Representative of municipal company managing social housing in heritage stock in Wrocław	HMWRO	Female	22.04.2021	46min	Online		
	Former municipal company manager in charge of revitalization in Wrocław	RMWRO	Female	15.04.2021	68 min	Online		
	Expert from Municipal Heritage Conservator Office in Wrocław	CWRO	Female	30.03.2021	56 min	In Person		
	Main Consultant in charge of City Plan of Copenhagen	CCOP	Female	05.09.2022	50 min	Online		
	Former Municipal Heritage Conservator of Chemnitz	CCHM	Male	14.09.2022	125 min	Online		

Secondly, municipal-level heritage protection officers from neighboring countries were interviewed to understand what processes lead to contrasting results in terms of acceptance of heritage housing interventions despite comparable heritage housing typologies.

As for the Polish interviewees, first the real estate agents were recruited, via telephone or e-mail, to discuss the value of adding balconies from the estate market perspective. Followingly, representatives from sales departments of real estate developer companies renovating single tenement buildings or large-scale construction investments under conservation preservation were invited via e-mail to participate in the interview and explain their approach to adding balconies to renovated apartments. Simultaneously a representative from Wrocław municipal heritage preservation office, responsible for the negotiations involved in the building permit process, was invited to express the heritage value perspective. Also a former municipal company manager in charge of revitalization in Wrocław was invited to discuss the process and challenges of tenements' revitalization. Finally, a representative of municipal company managing social housing stock in Wrocław presenting more technical challenges of municipal tenements' renovations.

The interviews took place between January 2021 and September 2022 and, depending on the interviewees' choice, were conducted in person, by phone, or via online conference and lasted between 11 and 125 minutes. All interviews but one was recorded on audio, transcribed and coded thematically in Atlas.ti software (Table 1). In one case the interviewee did not consent to recording, therefore detailed notes were taken during the interview.

Results

Heritage housing preservation and approach to alterations

Regulations, Policy and the Role of Planners and Conservators in the Heritage Protection Process.

Below a comparison of the legal frameworks of housing heritage preservation in four countries is presented based on analysis of legal acts, scientific papers and interviews with conservation officers.

Wrocław, Poland

The Polish Act of the Protection of Monuments defines a monument as “the work of man or associated with his activity, certificate of past age or an event, social interest due to the possessed historical, artistic or scientific value” [38]. This broad definition leads to debatable decisions about assigning a building to the heritage category. The system for assessing the values is debatable, thus construction, conservatory and scientific practices guided by this legal Act are divergent [35, 36]. There are several procedures of monumental values protection such as monument register, local monument inventories, as well as entries in local spatial development plans and cultural parks established by resolutions of municipal self-government. Two of them, confer full monument status to buildings constituting the national monument resource: the register (with stronger and more formal protection on a national level) and inventory (monuments recognized locally) [37]. The vast majority of housing tenements from the turn of 19th and 20th in Wrocław are protected by local inventory. Each protected building in inventory possesses a dedicated record card in a municipal heritage record containing the building documentation, preservation type definition, conservation postulates and an indication of specific elements under protection. Registration in the national list obligates the owner to preserve a building, but at the same time, it allows to apply for public funds for restoration [38, 39]. The act requires the owner to maintain the heritage in a manner that protects its value, but the commentary on the act indicates a lack of definition of “heritage devastation” [35]. Any changes in the form of the building depend individually on what elements are covered with protection in the record card and the individual conservator's consent, which is required during heritage renovation [39, 40]. Regarding tenements, in particular cases both facades, in the front

and backyard, can be protected, in others, the back elevation is treated technically and depending on the individual decisions, the additions in the front are allowed or prohibited. The conservators' guidance in practice works as a starting point for negotiations between an owner and a conservator [35].

The expert from the municipal conservator's office defines her role as aiming for substantive protection of a heritage building rather than proposing strategies of possible interventions. The architects working with tenement owners and facility management companies are expected to collaborate with the heritage protection office and propose innovative solutions in accordance with the conservator's guidelines.

Listing an object in a cultural heritage register commits the conservators (...) to protect a building's substance (...), to preserve the most from (...) what has remained. (...) The problems of residential buildings (...), which are substandard, (...) and need to be modernized whilst preserving historic values. (...) in fact, it is a design, urban planning as well as management and ownership problem (...). The owner (...) employs an architect, (...) He develops a project, right? (...) and he brings it to a conservator. We can participate in it, from the early conceptual stage. It is very welcome. (CWRO).

Although each tenement case demands an individual approach to renovation decisions, in revitalization experts' opinion, in Wrocław there is a lack of context-specific guidelines for the management of whole quarters or a strategy with a far-fetched vision of how to use the potential of this particular urban tissue. Based on her experience of working in Germany, the expert considers a coordinated approach beneficial.

(...) there should be (...) a general strategy for dealing with such a housing resource. (...) it is a chance to learn a lot and get a lot of conclusions which will facilitate procedures in the future (...) (RMWRO).

In Wrocław, the Municipal Department of Strategies and Development is responsible for creating strategies for tenements and their courtyard management. Due to decades of underfunding of tenements, multiple challenges coincide. Local legal acts related to the energy transition away from solid fuel heating, still prevalent in heritage housing [24], define strict time restrictions for implementing the imposed changes. Due to a lack of funds and the complexity of the challenge, all the investments are typically limited and address only the most pressing fundamental problems such as: equipping apartments with bathrooms, heating source replacement and sewage system connection rather than holistic modernization of buildings or quarters.

There is no money...(...). If we could, we would (...) modernize these buildings holistically, but in the current situation, we have to choose the elements to modernize. As I said, heating, sewage and ventilation. (...) We should first renovate those buildings that pose a threat to residents and the environment because there are those that have not been renovated since the war. We should definitely equip the apartments with bathrooms. (HMWRO).

Copenhagen, Denmark

The Danish Agency for Culture is responsible for the listed buildings, which represent special architectural or cultural heritage value on a national or international level, whereas the local authorities protect from demolition buildings considered "worthy of preservation", e.g. creating local identity. The method SAVE, Survey of Architectural Values in the Environment, is used for assessing the protected building value grading from 1 (the strictest, the level before the listed buildings) to 9 (the least strict). Most of the listed and preserved buildings are privately owned. Any changes, restorations and repairs in the protected buildings require permission from the Heritage Agency, thus the decision-making processes of the refurbishment are based on cooperation and dialogue with local authorities [41]. A local planning act with its indisputable rules is a powerful legal tool for heritage protection, whereas the guidelines present negotiable outlines for aligning building and retrofitting practices with the municipal vision of city planning and modernization's aims. Therefore, each case of a heritage building requires an

individual approach and architects are supposed to propose solutions in response to the rules and guidelines. According to the interviewed municipal planner, preservation only applies to the outdoor appearance of a building influencing the image of a city and is not concerned with the interiors. For these reasons, the planners are more strict about the street façade and more liberal about the backyard.

In Copenhagen (...) we try to protect buildings which maybe are not so old, but have some value (...), because new buildings look very alike. (...) So we try to maintain some significance in the areas (...). The state takes care of very important buildings and we take care of the buildings that we think are important locally (...). We can only protect the outside of the building. We have no opinion on what is happening inside. (CCOP)

Chemnitz, Germany – Federal State of Saxony:

In Germany, the heritage buildings with a public interest to conserve and use because of their historical, artistic, scientific, urban and landscape values are protected by one of the 16 preservation acts depending on the Federal State. The State Conservation Office administers the list of registered heritage buildings based on consultation with subordinate local monument protection authorities. The Saxon Heritage Protection Act among others, defines: the protectable heritage, the preservation scope (as protecting and maintaining the heritage building, checking the construction condition to avert accidents), monument treatment requirements and the role of the heritage authorities in protection. [42]. Any modifications such as maintenance upgrades, redesign, alteration, change of use, removals, or demolitions require permission from the monument protection authority. The Act indicates that to achieve the heritage preservation goals, a collaboration of authorities, owners and building users is necessary. All of these stakeholders should be involved in heritage building maintenance respecting the preservation principles. The cultural heritage protection is seen rather as a tool for strengthening sustainable city development and increasing their attractiveness than an obstacle limiting building modernization [43]. To avoid heritage building abandonment, it is a common practice to adapt them to new applications when their original function is no longer necessary or inconvenient in the current building state. Since the construction date is not considered during the registration for heritage status, contemporary architecture can also be qualified and protected as heritage. Additionally, heritage building maintenance is supported with subsidies and tax benefits [43, 44]. The former municipal conservator of Chemnitz emphasized that the tax law significantly stimulated the heritage building renovation:

There was a special tax law, (...) you don't have a negative impact, because you renovate the house. (...) The tax was really advantageous for the people. Without the tax, (...) not so many of the buildings would have been saved. (CCHM).

The Federal Law of Heritage Buildings Protection provides the framework for the aim of renovation, the heritage buildings registration and protected areas provisions to control valuable buildings that are not listed are the main tools in heritage building preservation. The approach to each building is individual and context-sensitive. The protection usually covers the façade, outdoor and common areas, thus ends at the apartment entrance and rarely regards its interior.

We stop at the doorsteps of the apartments, so inside the apartments, people do what they want. Maybe in some of them, there is a special ceiling or a special furnace, maybe something else, but normally they can do whatever they want in the apartments (...). (CCHM)

In order to help the private owners and housing associations in modernization, the authorities published guidance with the best practices of heritage housing renovations based on the lessons learned from conducted works.

(...) Even the houses that were not listed we tried to force people to modernize them properly. (...) We published these practice cases to give to private people who renovate the houses guidance, on how to make it properly (...). (CCHM)

Vienna, Austria – Federal State of Vienna:

In Austria, the preservation is administered by the Federal Office for the Preservation and Protection of Monuments (BDA – Bundesdenkmalamt). The historic buildings are claimed as heritage and protected if their historic, artistic or cultural significance is in the public interest. Heritage is valuable, as an object itself or due to a formed relationship with location and the law protects it from destruction and alteration. Any changes affecting the substance, artistic effect, or appearance are prohibited unless special permission is given by the administration. Neglecting building maintenance necessary for the existence of the monument is also considered destruction, thus the owners are responsible for repairing and providing information about building conditions and making it accessible in case of authority inspection. In order to stimulate historic structures' conservation, the state offers specific funding programs or tax deductions and advertises that investing in heritage is more valuable than just its sale price or rental profit. Independently from federal monument preservation, the agglomerations, such as Vienna, are allowed to define their special city protection zones controlling the demolitions or changes in local building stock with valuable features [32, 33, 45].

The history of innovative heritage housing stock in Vienna started in 1984 with the Land Provision and Urban Renewal Fund foundation to administrate subsidies implementation for the rehabilitation of residential buildings as a response to the demand for housing stock improvement. At that time 39% of dwellings were categorized as "insufficient standard" which meant a lack of toilets and/or water supply within the apartments. The aim of the project was the preservation of run-down residential buildings - mostly from the turn of the 19th century, counter-posed to demolition and new buildings [30]. Vienna, to avoid other big cities' urban renewal mistakes causing protests against gentrification, segregation and social ghettos has proposed the "soft urban renewal" model renovation program initiating the practice of modernization coordinated with residents, where consultation with citizens on changes was shaping housing renewal strategy [33]. The model program was recognized with the Scroll of Honor, the UN award for excellence in human settlements development. The launched project aimed at future-oriented strategies considering interdisciplinary demands: social, economic, cultural, aesthetic and ecological. The program assumed thermal modernization with the development of concepts for upgrading the entire urban blocks including the surrounding public space by taking into consideration their accessibility, daily use suitability, residents' needs and climatic sustainability [30].

This successful interdisciplinary program acknowledging different groups of interests is ongoing. It contributes to broadening the scope of tenements' conservation practices beyond building fabric preservation and technical enhancement, aiming to upgrade the living environment in response to the residents' needs. As such it is a common practice in Vienna to add spacious balconies at the backyard elevations and lifts and arrange additional apartments in the attic with terraces and in the case of flat roofs - rooftop gardens [30].

Comparison of Monuments' Protection Acts

In all the above-described cases the heritage definition focuses on the core aesthetic, historical, or artistic values underpinned by scientific evaluation. The heritage is protected to secure public interest. In Saxony law, however, the protection is broadened and "exists if there is a particular historic, cultural/artistic, scientific, ritual, technical/economic or architectural importance" [45]. Austrian law justifies the need for protection as "the loss of which would amount to an impairment of the stock of Austrian cultural goods" [45]. Both the Austrian and Danish heritage definitions extend their scope highlighting the importance of special relationships and environmental value as significant characteristics of social development [45, 46].

A focus on different concepts in the analyzed heritage conservation legal acts contributes to a varied local approach highlighted by the conservation officers from the four countries considered. The Polish act explains "conservation and restoration work" emphasizing the focus

on substantive and aesthetic values, however, fails to define “destruction or alteration”. The latter are clearly explained and prohibited in the Austrian act as influencing the monument’s substance, historic appearance, or artistic effect. What is more, “omitting maintenance that is unconditionally necessary for the continued existence of the monument with the obvious intention of destroying it” is explicitly prohibited. The Austrian definition of “preservation” is: “protection from destruction, alteration” and further it is explained that “The destruction of or any alteration, which may influence the condition (substance) of historic (historically evolved) appearance or artistic effect of monuments under monuments protection is prohibited unless permission has been granted” [44]. The Saxony law does not mention maintenance, but it defines “interference” as “(...) changes to the substance or use of cultural monuments which might seriously compromise the quality of the monument or lead to its destruction. Any interference with a cultural monument must be kept to the minimum degree necessary, approved only if all possibilities of preserving it have been exhausted” [46]. Such a definition does not prohibit additions and changes if these retain or improve the quality of a heritage building. To individually evaluate the impact of changes, these generally require permission. The Saxony Act approves the interference, i.e. a negative intervention if, among other things, it is in the public interest on proven scientific grounds. The Danish law requires permission for all the building works beyond standard maintenance that affects a listed building, including “installation of lighting, aerials, satellite dishes and similar, as well as signs on the facade or roof surfaces” [44]. Neither in Polish nor in Danish law the “heritage destruction” is explicitly defined, whereas a clear definition is provided in Austrian regulations. However, in all the countries the authorities have the right to request information from a proprietor and visit a heritage building to monitor its condition. Any acts against heritage regulations causing danger to a monument should be sanctioned with a compensation, fine or jail sentence usually regulated by the civil code. Also, all the acts require maintenance from buildings’ owners or holders, however, the Danish and Saxony additionally involve the occupants in this duty. What is more, in the Saxony Act there is an emphasis on collaboration between different stakeholders to achieve preservation goals: “The state, associations of local governments, owners and possessors of cultural monuments work together to fulfill these functions” [44]. In all the documents financial aid in the form of grants and subsidies is mentioned. The Austrian, Danish and Saxony Acts introduce tax advantages. Additionally, in Saxony and Danish law, the support covers expert assistance in the restoration [32, 44–46].

Factors underpinning the building of modernization decisions

Key themes representing factors underpinning the building modernization decisions, derived from interviews’ analysis and the literature are presented below.

Improving Building Usability

The urban environment and human expectations towards housing standards are constantly evolving. The conservators are aware that in order to preserve a heritage building it must be kept in use, otherwise it will deteriorate [32, 47]. Without modernization combined with significant living standard upgrades, the tenements will run down and the social value of created relations and identity within a community will be lost [5, 48].

Too strict heritage regulations might lead to limitation of building usability and cause a counterproductive effect of an investment postponement or degradation. On the other hand, a historic building may lose its heritage status if excessive transformations are implemented [5]. However, searching for proper solutions and upgrading living standards while meeting the preservation guidelines requires effort that needs to be taken into account in conservation practice.

Developers (...) can renovate and use it, but you cannot turn it down. (...) To help them to be able to maintain the houses we permit them e.g. building more square feet. (...) Because it is important that people live there, have the quality of the flats, (...) that are usable. (...) If you

go beyond strictness, they [developers] cannot do anything with this building, can go to a court and say: you have to buy this building, because I cannot do anything (...). (CCOP)

Technical Requirement

Historical heritage buildings were designed with different craftsmanship and technical capabilities in place and their physical parameters may not meet the requirements applicable to new-built homes. For this reason, derogations from either the conservator's guidelines or building regulations are common. Accordingly, some technical requirements are not applied in heritage buildings. There is a question of a compromise between conflicting values, such as fire or health safety versus retaining the heritage values of the interiors. A successful negotiation process is needed to develop the conservator's recommendations that preserve the key values and allow for building adaptation to current needs and safe usage. Nevertheless, the legislation practice of constantly tightening regulations without evaluation of the impact of any changes introduced, especially in the case of heritage buildings, might be misleading and requires reflection [5, 48]. Currently, the EU policy regarding limiting CO₂ emissions and energy consumption is challenging for historical housing stock. The designers and conservators of heritage buildings find it difficult to respond to the pressure of tightening technical requirements.

The biggest challenge was the energy saving ordinance (...) for the heritage buildings, it is kind of a misunderstanding, because (...) there 2-3% of the houses that are protected (...). You really have to put insulation on the façade, outside, also quite thick, maybe solar panels on the roof (...) the owners of the building, they also really want to save this energy because then they could give the renters the energy pass. (...) the insulation, if you put it inside then you lose a lot of floor area, so this is really a problem. Another problem is the fire protection law, so some of the windows have to be bigger. (CCHM).

In the case of Wrocław, the local legal obligations underpinned by the air pollution issue, forced the implementation of a long overdue transition away from individual furnaces using solid fuels in the tenements. The transition could have been an opportunity for a coordinated large-scale upgrade of the historical housing quarters. However, due to the lack of a long-term strategy for tenement retrofitting and the short timeframe for the transition, the available resources allow only for change of the heating systems without key envelope energy efficiency upgrades or any broader modernization efforts [24].

Currently, (...), we are obliged, in compliance with the Municipal Anti-smog Resolution, to eliminate coal-fired heating sources. Therefore, all hands on deck, we are liquidating furnaces. (HMWRO).

On the other hand, in Copenhagen, even if the energy-saving requirements do not fully apply to heritage housing, the rising energy prices motivate heritage conservation officers to reconsider the established conservation practice. Up till now insulating the tenement walls in Copenhagen has not been a common retrofitting practice. Insulation was occasionally added at the backyard elevations or sometimes on the inside. In the interview the representative from the planning office admits that due to the recent sharp increase in energy costs the current practice requires modification, to prevent energy poverty and forcing people out of their neighborhoods.

"We do not allow insulation. Maybe we can do it on the backside. But maybe we have to change that because (...) everything is getting very, very expensive, especially the heating (...) If you have to do it, you do it on the inside, but it is a problem, because the rooms get smaller and it is not always the way to go. (CCOP).

Developers' Motivations in Tenements' Renovation

Typically, the developers' approach to design derives from the rate of investment return and client expectations. In Poland, in the case of commercial modernization of individual tenements located in the city center the developers focus on clients interested in small apartments for rent. The modifications in the tenements are subordinated to the expected return on the investment rate and not a high living standard expected by the owners.

Both the developers and conservators may agree on tenement values regarding stylistic values, i.e. ornamentation, however the original large two-sided and airy floor plans, due to market pressure, apparently are not worthy of preservation. Even if there are large apartments offered in commercially retrofitted tenements, the client may be willing to divide them into small studios for rent after purchase. The number of apartments within a building is limited by the regulated parking ratio. One of the representatives of developers modernizing old tenements describes this real estate pattern as follows:

We have a tenement house with flats between 85 and 90 m². (...) we thought (...) that the trend on the market had changed a bit, that people would be more willing to buy apartments privately and simply live in this tenement house, but (...) we can see that each of the clients who came wanted to divide this flat. (...) for example, into two smaller ones and rent them (...) So ultimately we decided that we would tailor the offer to an investment client. (DRTS1).

Unless an intervention in a tenement meets clients' explicit expectations, increases sales or investment rate, or is forced by regulations, the developers are not motivated to introduce significant changes in heritage buildings. Interventions such as adding balconies could be implemented only based on clients' feedback. However, due to the high market demand for housing, companies do not feel the need for evaluation tools to assess the usability of their product. The sales rate is perceived as the most relevant feedback.

Ownership and Stakeholders' Engagement

Due to the attractive central urban location, there is an intensified interest in tenement housing modernization or transformation into offices. It's a phenomenon that, on one hand positively impacts the tenement usage ratio, but on the other it involves risks. One of them is gentrification [48], where people cannot afford higher rental costs in the upgraded buildings and are forced to move out and lose the long-term bonds created within a community. Furthermore, as one of the interviewees noticed, people prefer to live surrounded by similar social classes and are reluctant to mix, thus encouraging community diversity has to be regulated top-down, e.g. imposing a mix of social and private apartments or forbidding separation with fences.

[They] had been living there for 20 years and don't live there anymore, (...) It's very strange how fast this trend is going and things are getting very nice, but it is not the way it was before. (...) I think it would be better if people could live together, without money and with money (...). We are trying to do that when we do planning, but we don't succeed. (CCOP).

In Wroclaw, migration after World War II to a city damaged by over 80% resulted in housing shortages leading to subdivisions of the available historical apartments. That contradicted the initial architectural idea and caused living standards to deteriorate. What is more, the municipality became the owner of most of the historical housing stock. For a long time, the tenements were not renovated due to lack of public funds [48]. In the 1990s individual apartments in derelict buildings were offered for sale to the tenants. This resulted in a mixed ownership type of private and public owners of individual apartments within tenements, adding complexity to the already challenging modernization decision process. For example, in "small private housing associations", all the property owners have to give consent unanimously, whereas in bigger associations, adopting modernization requires a majority of votes. If the municipality shares a property with a bigger association, it has to go along with the majority's decisions and participate in maintenance and renovation. However, in small associations, it can block more ambitious investments. Due to shortages in public spending and a large number of apartments still owned by the municipality, it is more focused on addressing the basic needs rather than more broad investments in social housing upgrades, such as initializing or contributing to adding balconies to backyard elevations of tenements.

In general, (...) they [tenements] constitute a very large part of the communal stock (...) and due to the fact that the city is the owner, (...) the municipality is obliged, like every owner, to modernize and renovate these buildings. (CWRO).

Recent economic prosperity with intense housing development lacking a clear strategic framework has contributed to chaotic urbanization. For these reasons, creating a common strategy for this particular urban tissue has become more difficult over time. Planning a long-term scenario for tenements requires substantial communication effort and skills. Building momentum for solutions beyond business as usual in relation to heritage housing modernization requires the support of key influencing housing market stakeholders and the municipality.

(...) because various mistakes were made, of course, not on purpose, (...) which currently block certain types of actions, for example, by selling individual apartments, right? There are these mixed ownership types, some privately owned, some communal... They can't get along, private ones would like to renovate, but the communal ones don't have enough money.... Everyone argues. Certainly, it could be possible to avoid such mistakes if there was a strategy and if all those who participated in such a process were aware of (...)the plan (...). At the moment it is no good time for this in Wrocław, because ... (...) when [the communal apartments] started to be sold, so to speak, for little money, then, suddenly this type of flat became fashionable and very expensive. So it is not profitable for the city to develop any strategies at the moment, (...) innovative projects are usually created (...) under pressure, right? And here the municipality is not under pressure. (RMWRO).

In order to stimulate changes, an aware and active community used to participative decision-making is needed. Currently, as the interviewee notices in accordance with human nature of avoiding the effort of confrontation with a problem, lack of action and existing reproduction patterns prevail.

It is easier to maneuver the housing stock if the decision-making process is not dispersed. In Germany, the tradition of housing cooperatives and well-developed renting markets administered by municipalities creates a suitable environment for providing unified strategies of renovation practice. Furthermore, it limits the gentrification process in comparison to countries with the domination of private ownership type.

In Germany, there is a renting market, (...) so there are several big players in Chemnitz (...) the municipal building management, (...) the building cooperatives. (...) they also have their own stock money, they do not own their flat, but a part of the company. (...) and of course, you have houses that are privately owned. (CCHM).

Discussion

Impact of Heritage Value Definition and Collaboration Between Stakeholders

The conceptualization of heritage as defined by national and local governments and perceived by local stakeholders impacts the heritage conservation practice. Consequently, it shapes the valorization and relation of heritage with society [49]. Presented above, heritage definitions from precedent cases have in common a focus on material values. However, the Austrian and Danish Monument Protection Acts highlight the importance of spatial relationships and environmental values in their heritage definitions. This approach shifts the current discourse about heritage from an object-centered one, recognizing existing qualities mostly in materiality, to a plural and holistic approach [49]. The latter involves value formulation and assessment process through the lens of different stakeholders and balancing their interests, thus contributing to community well-being and social cohesion [49, 50, 51]. Within the new approach, it is important to apprehend the underlying assumptions about the nature of heritage values, perceived as:

- attributed i.e., not inherent, the object characteristics do not have significance unless they receive cultural importance,
- multiple i.e., different stakeholders attribute different values, mutable i.e., they evolve over time because of changing circumstances,
- incommensurable i.e., difficult to measure and certain values are prioritized and

- in conflict i.e., it is not always possible to preserve everything with cultural significance, the decisions are never objective and each heritage place is unique [52].

The heritage is seen as a dynamic concept, with a hierarchy of various values attributed by different stakeholders [53]. Not everything that used to be considered "art" at the time of its creation is considered a "work of art" today and vice versa [54]. Since values change, the way heritage is preserved is inevitably dynamic, therefore conservation becomes a complex and continual process requiring a definition of heritage scope, functionality, interpretation and by whom and for whom is preserved. Although heritage is preserved for future generations it is unknown what values they will prioritize [52]. Professionals attempt to create a common heritage treatment framework, however, it is discussed if it is possible to apply universal principles, since each heritage's significance is unique and requires a case-specific conservation approach responding to the cultural context to which it belongs [52]. On the other hand, the integration of typologies of diverse values and integration of common standards could facilitate the assessment and management of heritage [49]. As *M. Gawlicki* [55] notices in Polish regulations, the lack of precisely defined values of individual heritage buildings limits the preservation efficiency. Even though particular precedent cases have clearly defined criteria for listing buildings, the protection acts lack precise definitions of notions such as destruction, protection etc., which may cause misinterpretation or different assessment manner.

Although international organizations (UNESCO, ICOMOS and ICCROM) acknowledge a narrow view on heritage conservation and their doctrines emphasize the role of different stakeholders and diversity of values in various cultural contexts, the vast majority of these documents are non-binding [56]. Engaging different stakeholders in the renovation process presented in the so-called human rights-based approach to heritage protection brings positive effects, contributes to sustainable conservation and builds relationships between authorities and the community [49, 57, 58]. However, part of heritage protection officers, especially in the Polish context, assume that a broader participation of non-heritage-expert stakeholders in the decision-making processes would result in weakening of the heritage value preservation. In their opinion, considering social values may depreciate the traditional ones [54, 59], i.e. arguing that they are based on emotions instead of scientific discourse [60]. Heritage practices from Austria, Germany and Denmark present a more collaborative approach to decision-making about renovation. In contrast to Polish legislation, the collaboration and engagement in heritage protection of different stakeholders, from building occupiers and owners, to monument conservators and local authorities is formulated in their monument protection law acts. The Saxon Act indicates that the permission for interference may result from pressure of social interest. Although the participative process requires the active engagement of society, it is recommended that local authorities come up with an initiative and create a framework for collaboration between stakeholders [61], as it took place in the case of the Austrian "soft urban renewal" program, or in Chemnitz by providing guidance for owners about housing renovation. In Poland, long administrative proceedings discourage people from negotiating preservation guidelines, although a representative from the municipal conservator office expresses willingness to participate in the project from the first conceptual stages.

To overcome the reluctance to social engagement and achieve deeper change in renovation practice and understanding of values, diversity should be internalized among heritage practitioners [47]. If heritage protection is an engaging process, the role of conservators changes from a control-based approach to dynamic heritage management in a democratic society [50, 60]. In this case, the role of an expert is to pose questions, explore the perspectives of different stakeholders and consider them in heritage practice and policy formation [62]. Such policy, considering the perspective of stakeholders and converging the aims and values of building users and experts, assures better maintenance [59] and preservation effectiveness [63]. For this reason, preservation professionals need to be equipped with complex expertise in development economics, community engagement and regional planning [64, 65] or collaborate

in a group with professionals with required expertise [59], presenting the idea of “the external integration” of heritage, building physics, city planning, sociology and policy-making disciplines in order to link the past, the present and the future [60]. Currently, heritage practitioners gain such skills in project management through informal learning and practice [66]. Although practitioners of a human-centered approach to conservation are enthusiastic about stakeholders’ participation, its implementation is challenging [64, 65]. Not all the stakeholders are willing to participate actively in this process, on the other hand, participants feel disregarded and the meetings are just “empty gestures” [66, 67]. Effective participation process requires stakeholders’ education in heritage values and sustainability principles, to avoid making decisions based solely on personal assumptions or investment price and to avoid shifting the responsibility for renovation failures onto architecture users [47].

Protection as Lifespan Extension. Importance of Providing Holistic Heritage Housing Policy

From society’s perspective, it is worth conserving buildings as long as it brings benefits [32, 68, 69]. However, values of elements forging cultural economy such as existing social bonds and identity cannot be quantified in monetary terms and are “complex, multifaceted, unstable and lack an agreed unit of account” [32, 69]. The risk of building obsolescence, redundancy, or deterioration can be a trigger for building adaptation [50, 70, 71]. A well-managed heritage housing adaptation improving urban living standards has the potential to bring social benefits such as retention of social capital and diversity within the neighborhood preventing moving out to suburban areas by those who can afford it [3, 31].

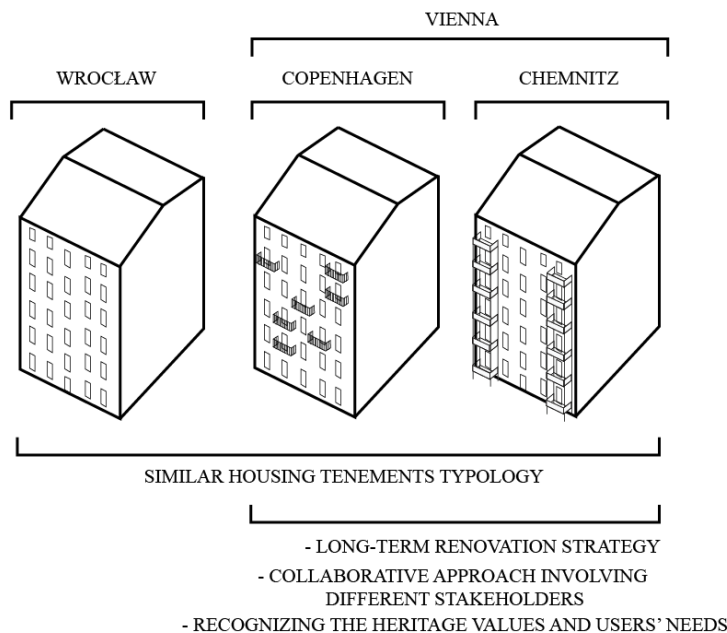


Fig. 5. Studied tenements and key differences in approach in heritage housing renovation.

Currently, the strategy of renovated tenements is not a subject of post-occupancy evaluation, although it could help in looking for new design solutions more adjusted to residents’ needs [49]. Since conservators expect the architects to present proposals resolving spatial problems, the future-oriented adaptation of tenement dwellings could be a chance for the architects to propose more creative designs [60]. Although most technical requirements applicable to newly built housing are difficult to apply in heritage buildings, the renovation

practices need to respond to some technical requirements perceived as crucial, such as energy efficiency, to avoid the risk of energy poverty [20]. On the other hand, policy-driven heritage buildings' standard improvement may contribute to narrow renovation targets to avoid fines, without consideration of the broader benefits of a longer-term modernization strategy. Solving ad-hoc, most pressing challenges may contribute to a lock-in effect when fixing other problems becomes more difficult. EU-level policy initiative related to renovation passports aims to address this issue, however, its implementation in the heritage housing stock requires local-level strategies involving relevant stakeholders. Due to mixed ownership types in heritage multi-family houses in Wroclaw, notoriously low renovation budgets and urgent retrofitting problems, applying a coherent strategy that balances all the needs requires triggering a discussion, that may draw on lessons learned in other urban settings [24, 31]. The lack of a framework for collaboration in the Polish context leaves the investors on their own, typically making assumptions based on sales efficiency only.

Conclusions

This study examined heritage building renovation practices from Wroclaw, Chemnitz, Copenhagen and Vienna regarding the approach to facade interferences such as adding balconies in housing tenements. The overall legal conditions have a similar framework in all the countries. All the preservation practices strive to find the balance between the value of increased usability, preventing the building from deterioration and the value of retaining original aesthetics with substantive protection of unique qualities such as building form and ornaments. The heritage definition in all cases is concerned mainly with historical values. However, particular details reflect a different culture of heritage practice organization in Germany, Denmark and Austria in comparison to Poland, which generates distinctive results. The preservation practices from Chemnitz, Copenhagen and Vienna present a more collaborative approach engaging the stakeholders and assisting them with professional expertise in the renovation process. This partnership is reflected in legal acts in various forms such as: considering social interest in heritage interferences, providing financial and expert support, holding responsible all the building users for heritage maintenance, or collaborating between different stakeholders to agree on a common aim of building protection. As a result, local authorities initiate an organizational framework for collaboration between heritage conservators, planners, designers, building owners, users, managers etc. This approach helps in planning holistic renovation strategies considering users' needs which converge with international heritage doctrines about involving social values in sustainable heritage renovation.

The heritage definition and its values as explained in the legal acts constitute the basis for preservation rules. However, values evolve, which is gradually reflected in legal acts. Conservation guidelines are flexible and may be changed due to external circumstances such as rising energy costs, users' expectations or real estate market pressure. Heritage officers in all counties are aware that disregarding these influencing factors may lead to the worst-case scenario, i.e. abandonment of heritage housing. Besides the explicit definitions, the tacit conservators' attitudes are also influential determinants of locally established practices. In Poland, even though there is a general conviction about the strictness of the protection guidelines, the study reveals that the conservators are open to discussion. Nevertheless, the lack of an established organizational framework for collaboration between heritage experts and other stakeholders causes a status quo bias. In this situation, a conservator expects designers' and investors' propositions to solve heritage tenement problems, whereas the other side assumes an unfavorable conservator's attitude to any significant interventions, which may complicate the investment process and cause delays. The lack of a holistic heritage protection strategy for

Wrocław combined with a profound scale of renovation challenge leads to poor coordination of the ongoing renovation effort.

The approach presented from cities of precedent studies allows major interventions, which bring beneficial results. For this reason, these examples could play a role model for implementing changes in Wrocław heritage management practice. The study suggests two hints for a renovation structure in Wrocław. First, there is a need for reconsideration of what constitutes heritage values for different stakeholders. Providing extended but accurate definitions of values helps in understanding what building elements are worthy of protection. Broader engagement of different stakeholders in the heritage protection process allows for a shared understanding of heritage values and, therefore needs to be recognized by the policy. Secondly, creating an organizational framework for different stakeholders' participation in the heritage-related decision-making process would turn the renovation into holistic long-distance strategy management. However, such a structure requires forming teams of practitioners with different expertise managing the heritage housing resource. For this, local authorities need to be involved in delegated officers' competencies development and provision and popularization of the role model renovation practices. Besides, the policy modification will not assure well-functioning heritage management without drawing conclusions from the regular monitoring and evaluations of the practices in place [69] [71] (nu ar trebui sa fie 71 acum, fiind Sapu 2003?). This collaborative approach refers to the municipal level, organized to address the recognized needs of a local context. Nevertheless, in Germany, Denmark and Austria the participative process is described in national (federal) legal acts. Providing an explicit endorsement of more collaborative heritage preservation practices in Polish Acts could trigger an inclusive and democratic heritage preservation process on a local level.

The conducted research encourages reconsideration of local understanding of values in heritage housing and emphasizes the untapped potential for improving the quality of living spaces in heritage tenements. This could potentially reverse the trend of city residents relocating to the suburbs in pursuit of better living conditions [31]. Municipality of Wrocław may consider following the example of policies from other European cities, where adding balconies to tenements is common. This is driven by same recognized social needs, but implemented through city-specific designs approach, driven by different contextual factors, such as daylight access or façade finishing materials.

One of the limitation of this study that the interviews conducted with stakeholders from Germany and Denmark were limited to municipal officers. Due to practical limitations of the study budget and timeline the interviews did not include the real estate representatives from these countries and the officer from Vienna. Their inclusion could enrich further studies. Nevertheless, the practices presented from Germany, Austria and Denmark demonstrate how crucial for effective heritage building preservation crucial is collaboration between different stakeholders and the recognition of their needs. Applying participative planning in heritage practice requires further research on efficient policymaking with engagement and collaboration between stakeholders in a challenging mixed ownership type context in Wrocław. Additionally, since current heritage research is concentrated rather on materiality, aesthetics and technical improvement, in the discourse on alterations in heritage preservation there is a gap in understanding people's needs in relation to spatial adaptability of the private space and space "in-between" private and collective or public of heritage tenement housing. For this reason, further study on this sphere using a wide range of ethnographic research methods involving dwellers [20] is recommended.

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