

Anticipating the Crisis: Adaptations of Office Buildings for Refugee Accommodation in Warsaw and Ivano-Frankivsk

Abstract

This paper presents a study on the adaptation of office buildings into residential centres for refugees, carried out after the outbreak of war in Ukraine on 24 February 2022. The aim of this analysis is to test the possibility of the crisis use of existing office space stock in Poland and Ukraine for residential purposes. The study covers architectural, structural, services and social aspects of the adaptation of 5 selected office buildings, 4 of which are located in Poland and 1 in Ukraine. Conclusions from the research visits, interviews with the administrators of the accommodation points and analysis of the building plans are used to define the issues related to changing office typologies into temporary housing environments and to formulate guidelines for increasing flexibility and potential for adaptive reuse in newly designed buildings.

Keywords: architecture of crisis, war in Ukraine, adaptation, modernisation of office buildings, change of function, Warsaw, Ivano-Frankivsk

Poland's response to the Russian aggression against Ukraine, which in its latest instalment began on 24 February 2022, is an experience from which not only political and social, but also spatial lessons must be learned. Contemporary cities have to operate in a state of constant readiness for further crises related to sudden population migrations, the disruption of both product and energy supply chains and even military action. The word crisis itself, derived from the Greek word κρίσις, had many meanings in antiquity, such as separation, resolution, process, outcome or end. Thus, it indicates a certain transition, but also a realisation, a grasping of something that would otherwise have remained unconscious.¹

The arrival of huge numbers of refugees from Ukraine in Poland calls for radical change in our perception of how both urban organisms and individual buildings should operate in order to be able to adapt appropriately to the dynamically changing situation. Rigid planning systems cannot keep up with the pace of change, so a more flexible approach to empty, undeveloped spaces as an available resource that could respond quickly to crises is needed.

Empty spaces in buildings, marginalised and forgotten by public and private landlords, are an important part of the landscape of Polish cities and villages. A Statistics Poland report published in 2022 indicates that around 12.1% of the total stock of residential and non-residential units in our country are vacant.² Building wastelands, which cannot be used due to regulations, poor technical condition, inadequate management or simply

mismatching with the requirements of modern-day life, are functioning outside the logic of continuous growth and can become laboratories in which various models of future living patterns are being tested.

ADAPTATIONS IN WARSAW

At the outbreak of Russia's full-scale invasion of Ukraine, Warsaw was unprepared for the resulting immense and rapid influx of people fleeing the war and seeking refuge. The shortage of publicly managed facilities able to provide adequate living space for these people forced the municipal authorities to seek support from the private sector. Four property developers, Archicom, Echo Investment, Globalworth and Skanska, came to the rescue and agreed to use the office buildings they owned and previously earmarked for demolition.³

Based on agreements on the lending of office space (as of 26 September 2022), Warsaw has thus been provided with an area of 21,640 m² in four empty buildings, in which temporary accommodation centres have been arranged for people fleeing the war. The space provided accommodation for around 2,150 people. The agreements between the city and the developers initially stipulated that there would be no rent for the space as well as no service charges. Over time, in some of the buildings, the city began to cover excess costs of maintenance, which the owners would not have incurred if the building had stood empty. The space rental agreements were mostly signed for an indefinite period with the possibility of one month's notice.⁴

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The centres were arranged over a period of several hours to several days by the staff of the Municipal Welfare Centres and numerous volunteers. In many cases, office equipment (desks, cabinets, chairs) was left in the rooms. Local authorities were responsible for providing beds, sleeping bags and food. The layout of the rooms was based on the existing spatial structure – no partition walls were demolished or added, with a few exceptions. There was a lack of both resources and time for this. The structure of the office buildings, largely dating from the turn of the century, was based primarily on office rooms rather than open spaces, which made it possible to create rooms for several people. In many cases, one room was occupied by a family (mainly women with children), but often also by a group of strangers. Due to the lack of adequate facilities and hygiene and sanitation conditions, the rooms could only serve as sleeping quarters. Meals were stored and served in separate rooms, and

bathrooms and showers remained shared. Three of the four donated buildings still remain in use.

CASE STUDY

As part of the 'Property4Ukraine' campaign, property development companies lent the city four buildings: the Mars, located in Warsaw's office district of Służewiec Przemysłowy, and three buildings in the city centre: the Atrium International Business Center, the Ilmet and the Warta Tower. At the time of the agreement, they were not in use despite the relatively short history of their existence. They were built in the late 1990s and early 2000s (in the case of Mars it was a modernisation) and were seen as symbols of the Polish political transformation and the growing aspirations of the private sector. The first of the donated buildings was the Mars, located in the Empark complex. In the first decades of its existence during the communist period it was an industrial building (Tewa, Unitra, CEMI companies). It was converted into an office building after the bankruptcy of the CEMI company in 1994, as one of the first spaces in the emerging business district in Warsaw's Służewiec.⁵

Ill. 1-3. Mars building, photos: Łukasz Stępnik (1), Bartosz Domański (2), drawings of the building adaptation - Łukasz Stępnik and Milena Trzcńska



Mars

address: 7 Wołoska Street, Warsaw

Authors: JEMS Architekci (modernisation of an existing industrial building)

opening date: 1997

usable area: 21,300 m²

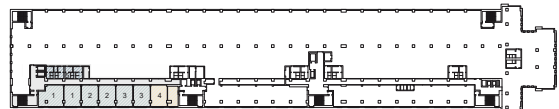
height: 32 m

owner: Echo Investment

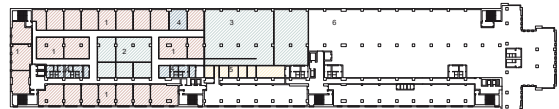
market rental price before the war: EUR 11/m²

number of refugees: approximately 400 on average (maximum capacity of 800 once more parts of the building are rented)

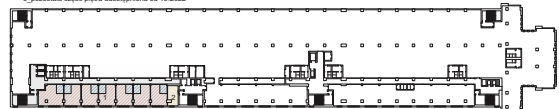
refugee space: 10,376 m² on 8 floors, in the second half of 2022, the available space was expanded to include further sections of the building



III piętro
1_gabinety psychologiczne
2_gabinety lekarskie
3_gabinet socjalny
4_magazyny i pom. gospodarcze
5_toalety



VI piętro
1_pokoje mieszkalne
2_pokoje spotkań
3_jadalnia z wykładką
4_toalety i przyłóżce
5_magazyny
6_pozostała część piętra udostępniona od 10.2022



VII piętro
1_pokoje mieszkalne dla matek z noworodkami i dziećmi w spektrum autyzmu z prywatnymi łazienkami
2_pom. gospodarcze

0 5 10m

The aluminium facades designed by JEMS Architekci became a symbol of the fresh start and the entire office complex. The current owners of the site have put forward a proposal to demolish this and some of the surrounding buildings for a residential development processed under the 'Lex Developer' law. Before its final disappearance, the Mars opened up to the needs of refugees, changing its form of use once again.

Bartosz Domański, the manager and coordinator of the Wołoska 7 accommodation unit set up in the building, calls it a 'hostel'.⁶ In organising the space on eight floors, he decided to use the functional structure of hotels. Together with his co-workers and volunteers, he set up a division into serviced (residential) and support floors (warehouses, offices, spaces for staff and volunteers, offices, etc.). The three even-numbered floors (floors 2, 4 and 6) contain living rooms for 3–12 people. Meeting spaces are also located on these floors – a room with video game consoles, a TV room, a group meeting room, a dining room with a pub, a freeshop, a hairdressing salon, a playroom for the youngest children and a playroom for older children.

The odd-numbered floors have a smaller usable area due to the structure of the building. The first floor features storage rooms (hygiene and sanitary storage, dry

provisions storage, storage with trolleys, scooters, bicycles), two office rooms for coordinators and rooms for volunteers (500 people in half a year). The third and fifth floors are dedicated to medical, psychological and social workers' offices. On the seventh floor, the previous tenant – IPN – arranged hotel rooms with private bathrooms, dedicated to mothers with newborn babies and children on the autism spectrum.

Another building in Warsaw which was adapted for use as a migrant centre in 2022 was the Ilmet skyscraper at

III. 4-7. Ilmet building, photos: Łukasz Stępnik, building adaptation drawings by Łukasz Stępnik and Milena Trzcńska

Ilmet

address: Pańska 53, Aleja Jana Pawła II 15, Warsaw

authors: Miljenko Dumencic, Mirosław Kartowicz

opening date: 1997

usable area: 20 966 m²

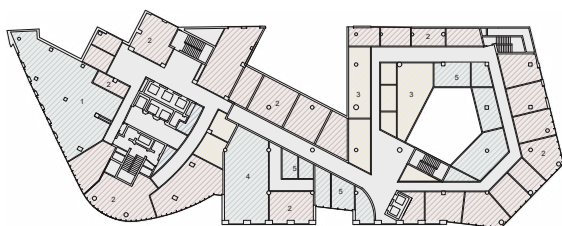
height: 84 m

Owner: Skanska

market rental price before the war: EUR 16.5/m²

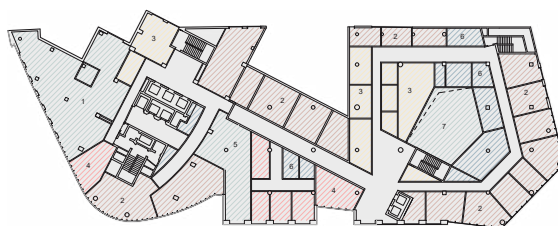
number of refugees: approximately 300 on average

refugee space: 3,000 m² on 2 floors



III piętro
1. sala zabaw dla dzieci
2. pokoje mieszkalne
3. magazyny i pom. gospodarcze
4. sala TV
5. sanitariaty

0 5 10m



II piętro
1. stołówka
2. pokoje mieszkalne
3. magazyny i pom. gospodarcze
4. pomieszczenia administracyjne
5. sala zabaw dla dzieci
6. sanitariaty
7. akomodacyjne zadane atrium

0 5 10m

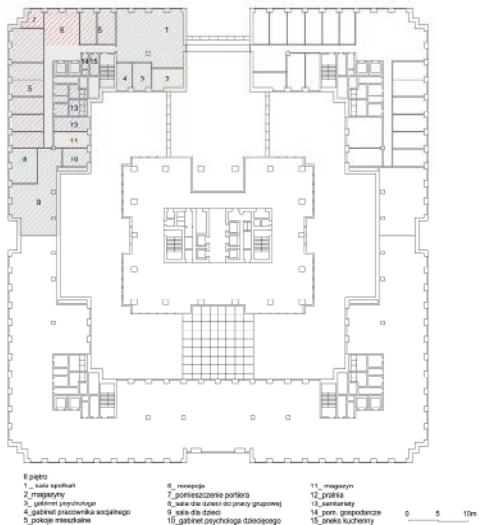
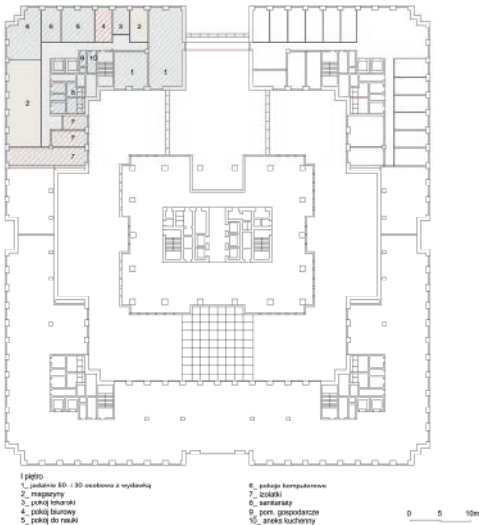
the ONZ roundabout. When completed in 1997, it was the highest structure in the area and the ribbon at the opening was ceremonially cut by President Aleksander Kwaśniewski. It is associated by the city's residents mainly because of the recently dismantled Mercedes company sign on top of the building and the characteristic red granite used on the facade. The building's reputation as Warsaw's landmark had a short life – fourteen

III. 8-11. Warta Tower building, photo: Łukasz Stępnik, drawings of the building adaptation - Łukasz Stępnik and Milena Trzcińska

Warta Tower
address: Chmielna 85/87, Aleje Jerozolimskie 58,
Warsaw
Authors: Leszek Klajnert, Jerzy Czyż
opening date: 2000
usable area: 25,800 m²
height: 82 m
owner: Globalworth
market rental price before the war: EUR 19/m²
number of refugees: around 130
refugee space: 2,299 m² on 4 floors



years after its construction, plans were made to demolish it, both because of its unmodern and unfunctional solutions (corridor-based layout of the floors, low storey height) and because of its size – in the meantime it had been overtaken by its taller neighbours. Two floors in their entirety (second and third floor) were allocated to the residence centre. There is no division between the administration and storage floor and the sleeping quarters – the uses are mixed, adapting to the unusual plan of the office building. The largest rooms were converted into a canteen and children's playrooms. A distinctive feature of the building is also the multi-storey covered atrium – used as a gymnasium or meeting place. Problems with the building's inadequate installation infrastructure (ventilation system unsuitable for the new function, combined with unopened windows) necessitated interventions in the building's facade and the introduction of additional ventilators in the window frames to bring in fresh air. From an architectural point of view, the adaptation of a high-rise building called Warta Tower is also extremely interesting. Granite and ebony were used to finish the interior of this building, which opened in 2000. The



ubiquitous gold colour and exotic ornamentation emphasise the luxurious character of the building, whose project owner was prominent businessman Jan Kulczyk. The interior also features water and exotic greenery: markers of a new era, but also of new technical possibilities. The mirrored facade of the building was an emanation of post-transformation luxury, which is now waiting for a thorough modernisation. The transformation of the Warta Tower skyscraper into a residence centre is perhaps the most expressive – the refugees took up residence in a space that communicates its elitism and inaccessibility with every element.

The centre was built under the management of Michałina Wiczorek, on the model of the 'hostel' on Wołoska Street. The four floors were divided in terms of function. The ground floor houses the storerooms of all residence centres and the freeshop. The first floor houses two dining rooms, medical and psychological offices, computer rooms, study rooms, storerooms, an office room and isolation rooms for patients. The second and third floors are residential floors with laundry facilities, children's playrooms and a meeting room.

The north-eastern part of the building houses the Polish Migration Forum, which supports refugees from all over Warsaw. The PMF and the residence centre operate independently.

The last of the four buildings to be temporarily designated as a residence was the Atrium International Business Centre, part of a larger urban development established in the 1990s on Jana Pawła II Avenue in the central part of Warsaw. The opening of the office building in 1995 was preceded by a clash between the police and street traders from the neighbouring bazaar, which became a symbolic illustration of the changes taking place in the space of the capital. A post-modern urban

III. 12-15. Atrium International Business Center building, photos: Łukasz Stępnik (12), photo courtesy of Strabag Real Estate (13), building adaptation drawings - Łukasz Stępnik and Milena Trzcńska

Atrium International Business Centre

address: Aleja Jana Pawła II 23, Warsaw

Authors: Kazimierski and Ryba, Derek Fraser

opening date: 1995

usable area: 11,660 m²

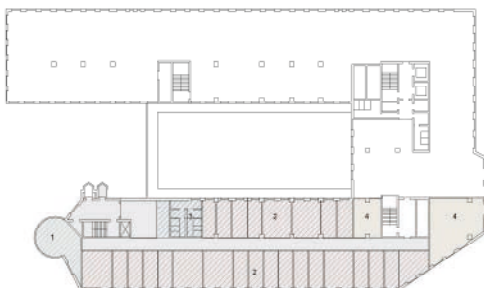
height: 25 m

Owner: Strabag Real Estate

market rental price before the war: EUR 15/m²

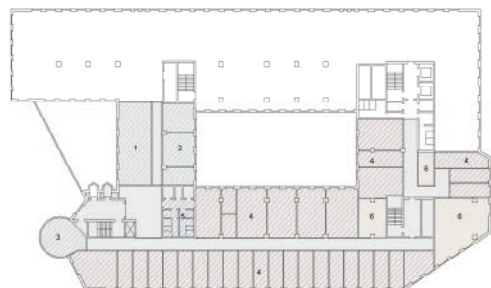
number of refugees: approximately 280 on average

refugee space: 3,400 m² on 6 floors



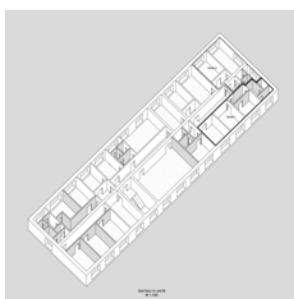
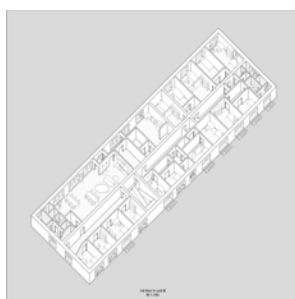
I piętro
1. sala zabaw dla dzieci i psycholog dla dzieci
2. pokoje mieszkalne
3. sanitariaty
4. magazyny i pom. gospodarcze

0 5 10m



II piętro
1. jadalnia
2. pokój rehabilitacji i psycholog
3. sala zabaw dla dzieci
4. pokoje mieszkalne
5. sanitariaty
6. magazyny i pom. gospodarcze

0 5 10m



Offices of the Department of Education in Ivano-Frankivsk

address: Stepan Bandera Street, 10g,
Ivano-Frankivsk

authors: no data available

date of opening: no data available

usable area: 2,452 m²

height: approx. 8 m

Owner: Education Department of the City of
Ivano-Frankivsk

market rent before the war: public ownership

number of refugees: 140

refugee space: 1,896 m² on two floors

Ill. 16-19. building of the Department of Education in Ivano-Frankivsk, photo and drawings: Anastasiya Ponomaryova

frontage replaced the street trading of early capitalism. 'It is perhaps the only consistently built street frontage in Warsaw, which nevertheless came of age before it was completed',⁷ – stated Michal Wojtczuk in 2013 in the pages of *Gazeta Stołeczna*.

The building space was made available to the City of Warsaw on 4 March 2022. Over the course of three days, the premises were cleaned, faults were repaired, and new showers were installed. The first residents appeared in the building on 6 March. Six floors in the eastern part of the building were handed over to the residence centre. Five floors were used, of which four floors were used primarily for residential functions and one floor was used for work (individual and group), meetings with doctors, psychologists, social workers, careers advisers and group play for children. The living area consisted mainly of rooms for 2–4 people. Open-space mattresses were also laid out on the four floor, but these were rarely used. In the first quarter of 2023, the process of demolishing the building began, preceded by the relocation of refugees to other residence points, mainly to the enlarged centre on Wołoska Street. In its place, a high-rise building designed by the office Medusa Group studio is to be built.

The BRDA Foundation, managed by Zofia Jaworowska, was involved in the demolition of the building. Two projects started by the foundation – 'Project OKNO' and 'Project BUDO' are aimed to store, catalogue, refresh and send to Ukraine window elements and other building components that can be reused.⁸ Thanks to an agreement with the building's owner, Strabag, the organisation intends to reuse up to 70% of the materials from the demolition of the building. Most valuable are the windows, which will be sent to the foundation's partners in Ukraine – Metalab, District #1, Building Ukraine Together and other organisations involved in the project. The process is not only humanitarian, but is also an opportunity to promote the idea of reuse of building components that are recovered during the phases of a building's life cycle, which in architectural and construction terminology are referred to as C1 (demolition of buildings and building elements), or C3 (waste processing).⁹ To facilitate the installation of the often-undersized windows in war-damaged buildings, the foundation has also prepared a manual for the installation teams with a number of graphically presented solutions and simple construction details.¹⁰

What, in the case of Polish cities, could be considered an intellectual exercise and a search for the development of architectural discipline, in Ukraine has become a necessity and one of the models for the future reconstruction of the country. Numerous buildings are being adapted to house internally displaced persons in safer regions of the country. This is the purpose for which the CO-HATY project was created. It is an interdisciplinary team of architects, including the co-author of this text, engineers, sociologists, urban planners, artists and lawyers, which focuses on the mission of providing living spaces for people who have lost their homes as a result of warfare. In December 2022, the organisation completed the adaptation of the former Department of Education office building in Ivano-Frankivsk into a collective accommodation centre. The building, which in its first incarnation was a kindergarten and only later became an office building, accommodated 140 people on a floor space of 1896 m². The local Department of Education has purchased the CO-HATY team the building

on a four-year lease under a rent-free agreement. It is a two-storey building surrounded by greenery. The building's space was designed for medium-term residence with the possibility of becoming a co-housing community in the future, and the adaptation process itself took place with the active participation of displaced people and municipal and regional partners.

UNDERSTANDING THE PROCESS

The history of the buildings described above, and the problems associated with their adaptation could be a great lesson for designers. Most of the analysed office buildings were completed at a time when room layouts were prevalent – which proved to be a good solution for transformation into residence – room layouts were easy to convert quickly into private spaces, whereas the contemporary open-space formula requires considerable transformation (both in terms of separating rooms and handling the HVAC systems). Open spaces were rejected by both process coordinators and migrants. In some cases, the structural slabs proved to be too weak to take the load from the planned storage facilities (e.g. for drinking water tanks). For this reason, some of the storage function had to be organised outside the buildings. Importantly, when there is a rapid change in the number of users, the installation infrastructure is usually not able to handle new functions – the energy supply is too small to allow efficient operation within the living space (hence, in the examples analysed, limiting the number of fridges, washing machines), the connection of water and sewage systems (and thus the introduction of additional bathrooms or kitchens) in new locations outside the core of the building often turns out to be impossible (despite suspended ceilings, there is no

possibility of vertical distribution of systems), and ventilation in the summer is inefficient (especially in the case of unopenable windows used in the analysed buildings, which in one case resulted in the necessity of 'perforating' the facade). The existence of higher, even multi-storey spaces offers additional design possibilities. The covered atriums in the Ilmet building or the Atrium International building were popular venues, functioning as sport facilities or meeting places (in the latter case, for example, a Children's Day was organised there with inflatable slides, or events like public screening of the Eurovision song contest). Deep office bays generate a lot of dark space, which is difficult to use for residential purposes. In many cases, it is used for storage or ancillary functions such as a freeshop or hairdressing salon, but there are times when windowless living rooms are created in order to achieve a more efficient arrangement of a particular location. The lack of balconies and opening windows increases the feeling of isolation. Residents would like to be able to go outside from their room, even if only for a cigarette. In one case, the opposite situation occurred – the residence point coordinator decided to permanently close the opening windows in the sleeping rooms due to a suicide attempt.

Russia's aggression against Ukraine in 2022 has necessitated improvisation and rapid decision-making, including in the context of urban planning and architecture. However, the lesson of the last year should be assimilated and used to design more resilient and adaptable building structures in the future. The modern city should be prepared for future crises, and buildings for usage models which were not originally intended by their authors.

ENDNOTES

¹ Stachewicz K., *Crisis as a philosophical category*, in: *Teologia i Moralność*, Vol. 7/2010, p.8.

² Central Statistical Office, GUS, *National Population and Housing Census 2021*.

³ *Property4Ukraine* action, source: website: <https://www.echo.com.pl/news,3007,property4ukraine-branza-nieruchomosci-zapewnia-dach-nad-glowa-dla-3-tys-uchodzcow.html> (accessed 27.05.2023).

⁴ Information obtained by the authors from representatives of the City of Warsaw in a letter dated 26 September 2022 under the provisions on access to public information.

⁵ <https://warszawa.wyborcza.pl/warszawa/7,34862,17913477,jak-sluzewiec-stal-sie-mordorem-biura-w-miejsce-upadajacych.html> (accessed 25.05.2023).

⁶ Information on the Mars and Warta Tower buildings obtained from a September 2022 conversation between the authors and Bartosz Domański and Michalina Wieczorek, coordinators of the residence points

at the time of their creation, and from the authors' research visits to the above buildings.

⁷ Wojtczuk M. *Not only the Atrium. Demolition of buildings from the 1990s*, in *Gazeta Wyborcza* [online], 6.04.2013, https://warszawa.wyborcza.pl/warszawa/56,34862,13686047,Nie_tylko_Atrium_Rozbiorki_budynkow_z_lat_90_ZDJECIA_.html (accessed 20.05.2023).

⁸ <https://warszawa.wyborcza.pl/warszawa/7,54420,29564018,biurowiec-zero-waste-ile-skarbow-kryje-sie-na-rozbiorce-w-centrum.html> (accessed 27.05.2023).

⁹ *Reuse in construction. A Compendium of Circular Architecture*, collective work edited by Eva Stricker, Park Books Publishing, Zurich, 2022, p. 10.

¹⁰ The catalogue, in the creation of which the co-authors of this article also participated, can be downloaded at: <https://issuu.com/fundacja-brda> (accessed 27.05.2023).

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- [3] *Reuse in construction. A Compendium of Circular Architecture*. (2022). Ed. by Eva Stricker, Park Books Publishing, p. 10.
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- [6] <https://warszawa.wyborcza.pl/warszawa/7,34862,17913477,jak-sluzewiec-stal-sie-mordorem-biura-w-miejsce-upadajacych.html> (accessed 25.05.2023).
- [7] <https://warszawa.wyborcza.pl/warszawa/7,54420,29564018,biurowiec-zero-waste-ile-skarbow-kryje-sie-na-rozbiorce-w-centrum.html> (accessed 27.05.2023).