Vatra Luminoasă, age-friendly-study of intergenerational architecture in a Bucharest neighborhood

Mihaela ZAMFIR,

Lecturer PhD Architect, Synthesis of Architectural Design Department, Faculty of Architecture, "Ion Mincu" University of Architecture and Urbanism; MMZ- Individual Architecture Studio, Bucharest, Romania

mihaela.zamfir@uauim.ro; mmg_architecturestudio@yahoo.com

Ileana CIOBANU,

Scientific Researcher III, PhD Biol., Department of Neuro-Rehabilitation, "Elias" University Emergency Hospital, Bucharest, Romania

ileanacuk@yahoo.co.uk

Mihai-Viorel ZAMFIR,

Assist. Prof. PhD, MD, Physiology Division, Faculty of Medicine, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

mihai.zamfir@umfcd.ro; mihaivzamfir@gmail.com

Abstract

Objectives: In the context of the future challenges of the society in which we live, the ageing process of the population determines requirements to which architecture must respond from now on. In this sense, the students of group 52 (academic year V, 2019-2020, Faculty of Architecture, Ion Mincu University of Architecture and Urbanism, Bucharest, Romania-IMUAU) were challenged in the most complex project in the faculty to experience a new perspective in architecture, the perspective of age, in order to understand and seek contemporary meanings of the concept of "age-friendly" in architecture. In Romania there are no concrete concerns in this regard, although at the research level it has been discussed for over 10 years. **Prior work:** The study is based on concepts already promoted in previous research of the authors such as age-friendly architecture, intergenerational architecture, Universal Design, inclusive architecture. **Approach:** Research by design is used as a method. The proposed site is located in the Vatra Luminoasă neighborhood, on the site of the former Zefirul factory. The project took place in 2 phases, phase 1 in 4 teams of 7-8 students, resulting in 4 master plans, phase 2 in teams of 2 students or individually, resulting in 23 projects. The teams of students were coordinated by 4 professors from IMUAU and specialist advice was provided by 4 experts (physician, psychologist, biologist and physical therapist).

Results: The 4 master plans highlighted different architectural approaches for the concept of "age-friendly": Street with Garden, Enclosure, 7 Courtyards and Strips. Within the 4 master plans, 23 projects were developed such as: residential centers for seniors, housing for seniors, multi- and intergenerational housing, intergenerational community centers, after-school, medical rehabilitation, wellness and spa centers. All projects were focused on the needs of users, from different age groups. Emphasis was placed on the use of therapeutic architectural tools such as light, shape, color, texture, sound.

Implications: The research results reveal the importance of a good theoretical knowledge of the ageing population topic and of the training of young professionals specializing in age-friendly architecture. Teamwork and the interdisciplinary approach are an important key to the success of a sustainable, intergenerational architecture project with a significant impact at the urban level.

Value: The research proves the potential of the Vatra Luminoasă neighborhood in an architectural perspective of the ages in architecture.

Keywords: ages, intergenerational architecture, inclusive design, research by design, interdisciplinarity.

1. Objectives

This study of intergenerational architecture started absolutely naturally, from the challenges that contemporary society brings: the ageing process of the population, the increased urbanization and the COVID-19 pandemic that we have been experiencing for 2 years, since the beginning of 2020.

According to UN, worldwide, the percentage of older people (65+) will increase from 9% in 2019 to 16% in 2050 [1] and at the European Level the situation is even more dramatic, 2050 is associated with a percentage of almost 30% of the elderly population. [2].

Romania is no exception to this trend [3], it is a country with a population of 19,53 Mlns of people. [4] Life expectancy at birth was estimated to be 75,83 years in 2020 [1], with proportion of population 65+ being 18,5% in 2019 [5]. It is estimated that the proportion of population 65+ will increase to 21% in 2030 and to 27,7% in 2050. [1] 53,8% of Romanian citizens live in urban areas. [4] Of course, new studies are underway because the COVID-19 pandemic has claimed many lives, especially in the elderly. [6] In high-income countries, 89% of COVID deaths are in 65+ persons. In low-income countries, 45% of COVID deaths are in 65+ people. The big problem is that, in both cases, a lot of people providing professional and informal assistance

and support to the older people, died, too. [7] From the beginning of 2020 until the time of writing this article, globally, there are almost 300 million confirmed cases of SARS-CoV-2 infection, including almost 6 million deaths reported by the WHO and also over 9 billion vaccine doses administered. [8] We are in the midst of the 5th wave of the COVID-19 pandemic and the unforeseen can occur at any time.

We live longer but it is important to live healthy and independently. Gerontologists also talk about a feminization of the aging process and this phenomenon has an impact on the way social programs are designed. The city must take these changes into account, both in terms of urban space and in terms of architectural objects. This research sought to provide architectural answers-but in an interdisciplinary manner- to questions such as:

- How architecture can stimulate Active & Healthy Aging?
- How architecture can support Ageing in Place & Ageing in Community, helping to build sustainable communities?
- How architecture can stimulate intergenerational communication?
- How **architecture** can respond to the elderly who need assisted care?

This complex context of demographic change determines requirements to which architecture must respond from now on. In this sense, the students of group 52 (5th year of study, 2019-2020, Faculty of Architecture, IMUAU- Ion Mincu University of Architecture and Urbanism, Bucharest, Romania) were challenged in the most complex project in the faculty to experience a new perspective in architecture, the perspective of age, in order to understand and seek contemporary meanings of the concept of "age-friendly" in architecture. In Romania there are no concrete concerns in this regard, although at the research level it has been discussed for over 10 years.

2. Prior work

The study is based on concepts already promoted in previous research such as age-friendly architecture, intergenerational architecture, Universal Design, inclusive architecture. Designing the built environment for elderly people comes with specific challenges. One needs to understand the manner in which the built space will be accessed and used by real people, to visualize and implement solutions to assist as much as possible through design the ability of the older person to access his home and to perform the activities of daily living with optimal efficiency and in safe manner. Thus, the person will be able to keep him/herself in a virtuous cycle in which activity maintains functioning and functioning maintains activity and social life (including productive aspects), maintaining a higher level of the quality of life for them and their relatives, delaying onset of frailty, disability and decline as long as possible. [9]

In the last 2 years we have developed several studies and we are part of research projects that take into account the impact of the COVID-19 pandemic on the built environment such as housing [10] or healthcare dedicated to the elderly with specific pathologies [11], [12], [13]

Within this research topic, architectural projects dedicated to frail people were studied, such as: homes for the elderly, care centers for the elderly, nursing

homes (Santa Rita Geriatric Center-2003 [14], Spain, Ellesmere Nursing Home- 2007 [15], UK, Graz Nursing Home-2014 [16], Austria, Dublin Respite Center-Ireland, 2009 [17]; kindergartens (Kindergarten-2010 [18], Austria, Monthey Kindergarten-2008 [19], Switherland); childcare centers (Econef Children's Center- 2018, Tanzania [20]), medical rehabilitation centers for disabled people (Rehabilitation Center- 2002, Basel [21], Sax Rehabilitation Center-2015, Germany [22])

3. Approach



Fig. 1. The plot of research- Former Zefirul Factory plot Source: Google Maps https://www.google.com/maps/place/Zefirul /@44.44105,26.1427044,566m/data=!3m1!1e 3!4m5!3m4!1s0x40b1f92a499a1d11:0x850ab 6bc899b70df!8m2!3d44.4423413!4d26.1440279

The framework theme of the 10^{th} semester, 5^{th} year of study, as a last step in the educational training of students before the diploma project, proposes, as a general topic, approaching future challenges in which architecture becomes or is an important part of the solution.

Research by design is used as a method. [23] Research by design is used in architecture research, for investigating qualities and issues, potential and possibilities of development of a certain location, by developing and analyzing architectural solutions for a given space. The proposed site is located in the residential neighborhood *Vatra Luminoasă*, on the site of the former Zefirul factory, with double opening, on Iancului Avenue and Vatra Luminoasă Street, plot area \sim 22000sqm (21977sqm). A Zonal Urban Plan [24] was also developed on this site, which was recommended to the students only for informative consultation.

The project took place in 2 phases, phase 1 in 4 teams of 7-8 students, resulting in 4 master plans, phase 2 in teams of 2 students or individually, resulting in 23 projects. The teams were coordinated by 4 professors from IMUAU and specialist advice was provided by 4 experts: 1 physician, 1 psychologist, 1 biologist and 1 physical therapist (P.T.).

The proposed height regime is low, maximum groundfloor+2 - groundfloor+4 according to the design theme. The height regime can undergo changes depending on the Master Plan conducted by each team of students in the first phase of urbanism.

The maximum buildable area will take into account the zonal regulations and will be nuanced in the same way, depending on the urban planning study from the 1st phase.

In the 1st phase, students can propose, in a solid argumentative approach, new regulations that can adjust the regulations in force.

Students were invited to explore the **AGE-FRIENDLY** concept in **ARCHITECTURE.** Age-friendly architecture's goal is to provide users with a barrierfree built environment, with augmented access and embedded comfort capabilities. The idea is to meet the needs and requirements resulting from the functional limitations of the older people, generated by sensory, motor, psychological impairments of older people, from the built solution itself, to avoid the future otherwise-mandatory changes and adaptations. [25] Students' aim was to outline their design theme on the proposed site by opting for one or more of the following options:

• Assistance in the community with the maintenance of the home: Elderly Dwellings / Home based Assisted Living; Senior Clubs, Seniors Centers; Adult Day Care Centers; Medical Rehabilitation Centers.

Ageing in place means maintaining one's residency in time and it is a desideratum for longer independent living. Keeping the ageing person in his/her usual environment ensures maintaining the routines in the activities of daily living as well as maintaining the social network and space coordinates of the older person. [26]

• Assistance in the community involving a change of place: Social Dwellings;

Assisted Living Facilities (ALF), Adult Care, Residential Care; Adult Foster Care; Continuing Care Retirement Communities (CCRC).

Ageing in community means expanding the concept of ageing in place in a more complex sense. [27] Ageing in community means the possibility of moving, in time, to a community adapted to the needs of the elderly that can provide assistance on several levels, depending on the needs of its members.

Projects Coordinators:

Team: 4 Professors | Prof. PhD. Arch. Dan Corneliu Şerban, Lecturer PhD. Arch. Mihaela Zamfir, Lecturer PhD. Arch. Ana Maria Vesa (Dobre), Arch. Simina Dron

Experts advice:

Team: 4 Experts | Md. Mihai-Viorel Zamfir, Psych. Andreea Georgiana Marin, Biol. Ileana Ciobanu, P.T. Dragoș-Cristian Bogdan.

PHASE 1 4 MASTER PLANS

• MASTER PLAN 1 Street with Garden

Team: 7 Arch. Students | Răzvan Badea Șuțu, Laura Covaci, Teodora Cristache, Teona Dascălu, Alexandra Seregi, Vlad Șomăcescu, Laura Tomșa.

• MASTER PLAN 2 *Enclosure*

Team: 7 Arch. Students Andrei Băcău, Anca Băduț, Mihai Dobre, Andrei Leașu, Georgian Mirescu, Andra Nicoleanu, Livia Tănasă.

• MASTER PLAN 3 7 *Courtyards*

Team: 7 Arch. Students | Ioana Cojocaru, Ana Dobrin, Ana-Maria Lakatoş, Irina Lungu, Iulian Pînzaru, Mariana Popescu, Alina Stoica.

• MASTER PLAN 4 Strips

Team: 8 Arch. Students Alexandru Bălău, Dănuț Marius Câcu, Teodor Cristian Dascălu, Ionuț Alexandru Dima, Alice Andreea Georgescu, Alexandru Moldovan, Vlad Răzvan Nicolescu, Ana Sandu.



From left to right: **Fig. 2.** MASTER PLAN 1 | *Street with Garden*; **Fig. 3.** MASTER PLAN 2 | *Enclosure*; **Fig. 4.** MASTER PLAN 3 | 7 *Courtyards*; **Fig. 5.** MASTER PLAN 4 | *Strips Source: Group 52_2019-2020 Archive*

PHASE 2 23 PROJECTS

- MASTER PLAN 1 *Street with Garden*: 1.1 Intergenerational Community Center; 1.2 Elderly Dwellings; 1.3 Wellness Center; 1.4 Occupational Therapy Intergenerational Center.
- MASTER PLAN 2 *Enclosure*: 2.1 Rehab and Wellness Center; 2.2 Intergenerational Residential Building; 2.3 Elderly Nursing Home; 2.4 Intergenerational Community Center.
- MASTER PLAN 3 7 *Courtyards*: 3.1 The Magnolias Garden;

3.2. Intergenerational Courtyard; 3.3 Elderly Residential Center; 3.4 Courtyard with School; 3.5 The Square Court_Elderly Nursing Home; 3.6 Community Center; 3.7 After school.

4. MASTER PLAN 4 *Strips*: 4.1 Community Center; 4.2 After School;

4.3. Nursing Home for Elderly with Neurocognitive Disorders; 4.4 Rehab Center; 4.5 Social Dwellings; 4.6 Elderly Dwellings; 4.7 Multifunctional Adaptable Community Center; 4.8 Community Center for Blind People.

4. Results

The 4 master plans highlighted different architectural approaches for the concept of "age friendly": *Street with Garden* |*Enclosure* | *7 Courtyards* | *Strips*. Within the 4 master plans, 23 projects were developed such as: residential centers for seniors, housing for seniors, multi- and inter-generational housing, intergenerational community centers, after-school, medical rehabilitation centers, wellness and spa centers. All projects were focused on the needs of users, from different age groups. Emphasis was placed on the use of therapeutic architectural tools such as: light, shape, color, texture, sound.

• MASTER PLAN 1 Street with Garden

The Vatra Luminoasă plot is perhaps the largest area of land in Bucharest drawn and built as a unit [28], in the sense of a common logic of form and habitation. To build now, in the immediate vicinity of a clear geometry, involves responsibility and a kind of negotiation between adapting to the character of the area and the need for landmark architecture within the city. Thus, the 1st team subdivided the constituent elements of the master plan into urban, natural and artificial elements, into gaps and fills, into typologies, which they searched for and identified around, taking over their subtle logic and how to sit in place.

The concept of the MASTER PLAN 1 focuses on the idea of an interspersed pedestrian street, with green spaces that develop in gardens, a central, longitudinal spine that crosses the site from one end to the other, proposing itself as the major compositional axis.

The proposal coagulates, as a system, a network of places with spatial and functional links that connect to the city as an organism of intercalated processes. The proposed public functions take into account the social and health services that the different categories of elderly people need in the proximity of their homes, but also the need to attract other age groups within the community. Housing offers to the elderly the opportunity to remain in the community [27] even if their needs change over time, responding through a variety of housing types, from independent dwelling units to medically assisted ones. The proposed activities ensure intergenerational interactions and connections both at the city and neighborhood level, taking into account the school in the immediate proximity. The activities also organize the outdoor space, generating a diverse spectrum of semi-public and semiprivate courtyards and gardens and variously influencing the public area. An elderly-friendly community combines both environmental and social aspects to create living spaces, which increases the quality of housing. These issues need to be complementary and mutually supportive to ensure that the elderly live and participate in the community.

1.1. Intergenerational Community Center | Street with Garden | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Teodora Cristache & St. Arch. Vlad Şomăcescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 6. Intergenerational Community Center | Street with Garden | Vatra Luminoasă Source: Group 52_2019-2020 Archive

"Vertical community"

"Smart Cities" 2021

1.2. Elderly Dwellings | Street with Garden | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Răzvan Badea Şuţu & St. Arch. Teona Dascălu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 7. Elderly Dwellings *Street with Garden* Vatra Luminoasă *Source: Group* 52_2019-2020 Archive

"Small is beautiful"

1.3. Wellness Center | Street with Garden | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Laura Maria Covaci Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 8. Wellness Center | *Street with Garden* | Vatra Luminoasă *Source: Group* 52_2019-2020 Archive

"Active ageing, relaxation, spa"

1.4. Occupational Therapy Intergenerational Center *Street with Garden* Vatra Luminoasă



University Year: 2019-2020 Authors: St.Arch. Alexandra Seregi & St. Arch. Laura Tomşa Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 9. Occupational Therapy Intergenerational Center | Street with Garden | Vatra Luminoasă Source: Group 52_2019-2020 Archive

"Unity by diversity"

• MASTER PLAN 2 | Enclosure

At this moment, the empty site of the former Zefirul factory represents a dysfunction in the Vatra Luminoasă parceling, but the meaning of the place is captured in its accident value, even before the existence of the neighborhood, as the historical plans reveal. [29]

Team 2 approach is in this sense a conservative one, by choosing to keep the geometry of the vacuum and not to obsessively compartmentalize it, to fit it in the size of the area. Taking inspiration both from the typology of inserting green spaces present in the vicinity, but also analyzing on several levels the local urban fabric, it was found the need for a space that proposes a new composition rule for a future moment of neighborhood restructuring.

MASTER PLAN 2 proposes the concept of enclosure, starting from the most intimate part of the site, from its core in which functions dedicated to the elderly with different abilities and needs are designed, whose privacy and tranquility is ensured from the beginning, through the preferential position.

From the central, private area, the spaces open, with public valences to Iancului Avenue, where the aim is not to complete the front, but to preserve the "break" and mark it through a square dominated by a high accent that responds to the opposite, and semi-public to school, with a meeting place, a common courtyard with fluid circulation. The stake of the project is that of the hortus, the hidden urban garden, protected by the adjacent buildings, whose role is to coordinate the movements of the viewer through space, revealing this precious place in the middle.

Towards Vatra Luminoasă Street, the ensemble is connected by the existing school with a function meant to unite the community with all its participants, regardless of age.

2.1. Rehab and Wellness Center | *Enclosure* | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Andra Nicoleanu & St. Arch. Livia Tănasă Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 10. Rehab and Wellness Center | *Enclosure* | Vatra Luminoasă *Source: Group* 52_2019-2020 Archive

"Spa, inclusive design, accessibility"

2.2.Intergenerational Residential Building | Enclosure | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Georgian Mirescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 11. Intergenerational Residential Building *Enclosure* Vatra Luminoasă *Source: Group* 52_2019-2020 Archive

"Accessibility, different but together, communication by architecture"



2.3. Elderly Nursing Home | Enclosure | Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Andrei Băcău & St. Arch. Mihai Dobre Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 12. Elderly Nursing HomeEnclosureVatra LuminoasăSource: Group 52_2019-2020 Archive

"Facilities for elderly with different abilities"



2.4. Intergenerational Community Center | *Enclosure* | Vatra Luminoasă

University Year: 2019-2020 Authors: St. Arch. Anca Băduț & St. Arch. Andrei Leașu Tutors: Prof. PhD. Arch. Dan Șerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 13. Intergenerational Community Center |*Enclosure*| Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Dynamic and attractive architecture, full of color"

• MASTER PLAN 3 7 *Courtyards*

Vatra Luminoasă is a historical monument neighborhood consisting of 2 important interwar plots: Vatra Luminoasă and Iancului. It is a unitary area with a bohemian atmosphere in which the landscaping elements dominate the public space and the scale at which it is built is friendly to man. [30]

From the perspective of circulations, there were dysfunctions in the area related to traffic and accessibility for the elderly and disabled people, for whom this

master plan sought solutions. Through this project, the pedestrian access was done from both streets and the car access only from Vatra Luminoasă Street, a street with a smaller size and less intense traffic.

The project takes into account the abundant vegetation in the area with a defining character for the neighborhood, remarkable are the landscaping with specially chosen plants such as magnolias and firs. The presence in the neighborhood of the parks and gardens as defining elements for the urban composition, [31] generated the concept from which this project was developed.

The concept of MASTER PLAN 3 is born from this urban analysis summarized above and involves the design of spaces similar to gardens and parks in the existing urban tissue. In order to meet the traffic criteria, a spine has been proposed that connects these courtyards with each other, also contributing to the spatial order of what is being built. The proposed functions are carefully interrelated to generate a harmonious, intergenerational community in which the elderly, depending on the degree of (in)dependence, remain connected with the families or community to which they belong. Towards Iancului Avenue, public and community functions are proposed so that, as we move forward into the depths of the site, we will find housing on the model of ageing in place, housing with different degrees of assistance for the elderly. Towards Vatra Luminoasă Street, the ensemble opens again to the community by connecting with the existing school, being developed its related functions through extension: workshops, afterschool. This project also targets harmonious intergenerational relations.

3.1. The Magnolias Garden 7 *Courtyards* Vatra Luminoasă



University Year: 2019-2020 Authors: St. Arch. Irina Lungu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 14. The Magnolias Garden | 7 *Courtyards* | Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Natural materials, quiet spaces full of light"

3.2. Intergenerational Courtyard | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Ioana Cojocaru Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 15. Intergenerational Courtyard 7 *Courtyards* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Natural materials, quiet spaces full of light"

3.3. Elderly Residential Center | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Mariana Popescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 16. Elderly Residential Center 7 *Courtyards* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Modern way of ageing"



3.4. Courtyard with School | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Mariana Popescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 17. Courtyard with School7CourtyardsVatra LuminoasăSource: Group 52_2019-2020 Archive

"Child-friendly architecture"

3.5. The Square Courtyard_Elderly Nursing Home | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Ana Maria Lakatoş Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 18. The Square Courtyard_Elderly Nursing Home | 7 Courtyards | Vatra Luminoasă Source: Group 52_2019-2020 Archive

"Caring for dependent elderly, social medical assistance"

3.6. Community Center | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Iulian Pînzaru Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 19. Community Center | 7 Courtyards | Vatra Luminoasă Source: Group 52_2019-2020 Archive

"Enabling community"

3.7. After School | 7 Courtyards | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Ana Maria Dobrin Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 20. After School 7 *Courtyards* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Child-friendly architecture"

"Smart Cities" 2021

• MASTER PLAN 4 Strips

The strip, in the case of this project, is considered a gesture of the natural. Detached from the rigidity of the plot that it is trying to articulate, it becomes an element of language that, through rigorous juxtaposition, together with the newly built fund, configures various community spaces. The site was conscientiously explored, completing a hermeneutic framework, identifying phenomenological meanings of the place and expressing in the project its practical experiences. [32]

The pretext of the subdivision was the spine, the axis, a reflection of the conditionings in the site, the short circuit of two arteries through which a new transversal public dimension is introduced. Towards this attitude, the buildings are articulated, thus creating a public alveolar system throughout the site.

The plots, although very specialized in terms of the assumed architectural program, do not remain indifferent to the immediate vicinity, forming a courtyards system that creates an overall functional synergy.

The architectural programs present in MASTER PLAN 4 are different, respecting a gradation of public access, from the community center in relation to an after-school that connects to Iancului Avenue, going through different types of housing with different degrees of socio-medical assistance, reaching to a nursing home for elderly with neurocognitive disorders or a medical rehabilitation center.

Going back to the natural, Master Plan 4 reminds us of subordination to the free space, open or little arranged, in the spirit of the program but also of the character of the neighborhood that looks like a garden [30] at the level of the Bucharest urban space.

4.1. Community Center | Strips | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Alexandru Bălău Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 21. Community Center *Strips* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Interactivity, learning, communication"

4.2. After School | Strips | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Dănuț Marius Câcu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 22. After School *Strips* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Education by architecture and design"

4.3. Nursing Home for Elderly with Neurocognitive Disorders |Strips| Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Teodor Cristian Dascălu Tutors: Prof. PhD. Arch. Dan Șerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 23. Nursing Home for Elderly with Neurocognitive Disorders | *Strips* | Vatra Luminoasă *Source: Group* 52_2019-2020 Archive

"Elderly-friendly architecture, dementia-friendly architecture for frail people"

4.4. Rehab Center | *Strips* | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Ionuț Alexandru Dima Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 24. Rehab Center | *Strips* | Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Therapeutic space"

4.5. Social Dwellings | Strips | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Alice Andreea Georgescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Arch. Mihaela Zamfir Lect. PhD. Arch. Ana Maria Vesa (Dobre) Arch. Simina Dron

Fig. 25. Social Dwellings *Strips* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Affordable architecture"

4.6. Elderly Dwellings | *Strips* | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Alexandru Moldovan Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Maria Vesa (Dobre) Arch. Simina Dron Arch. Mihaela Zamfir Lect. PhD. Arch. Ana

Fig. 26. Elderly Dwellings *Strips* Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Elderly friendly architecture, ageing in place"

4.7. Multifunctional Adaptable Community Center | Strips | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Vlad Răzvan Nicolescu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Maria Vesa (Dobre) Arch. Simina Dron Arch. Mihaela Zamfir Lect. PhD. Arch. Ana

Fig. 27. Multifunctional Adaptable Community Center | *Strips* | Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Communication by cultural activities"

4.8. Community Center for Blind People | *Strips* | Vatra Luminoasă



University Year: 2019-2020 Author: St. Arch. Ana Sandu Tutors: Prof. PhD. Arch. Dan Şerban Lect. PhD. Maria Vesa (Dobre) Arch. Simina Dron Arch. Mihaela Zamfir Lect. PhD. Arch. Ana

Fig. 28. Community Center for Blind People | *Strips* | Vatra Luminoasă *Source: Group 52_2019-2020 Archive*

"Caring for the disabled people"

5. Implications

The research results reveal the importance of a good theoretical knowledge of the ageing population topic and of the training of young professionals specializing in age-friendly architecture. Intergenerational architecture exercises at the level of contemporary university education in architecture are absolutely necessary in a society where life expectancy is increasing. The young architects must be aware of the necessity of the age dimension of future architecture.

Teamwork and the interdisciplinary approach are an important key to the success of a sustainable, intergenerational architecture project especially when the therapeutic space [33] is a significant part of it, with a significant impact at the urban level.



Fig. 29. Intergenerational Community Center | *Enclosure* | Vatra Luminoasă Authors: St. Arch. Anca Băduț & St. Arch. Andrei Leașu *Source: Group 52_2019-2020 Archive*

6. Value

The research proves the potential of the Vatra Luminoasă neighborhood in an architectural perspective of the ages in architecture. The four master plans were developed on four different and perfectly valid concepts, all four taking into account the age dimension in architecture and the particular value of the Vatra Luminoasă neighborhood. Following this research topic, the students acquired a vocabulary specific to architecture friendly to all age groups and, most importantly, they managed to implement it in feasible projects. The support of the experts in related fields-medicine (geriatrics-gerontology and psychiatry), biology and physical therapy- ensured the assimilation of specialized notions and the detection of the needs of both, different age groups and people with various abilities. The interdisciplinary course of the project, the generative processes proved to be as important as the results. [34] The projects proved what the authors of this paper explored in previous research, namely that a friendly architecture for frail people such as the elderly, children or disabled people is a friendly, inclusive architecture for everyone.



Fig. 30. Community Center for Blind People | *Strips* | Vatra Luminoasă Author: St. Arch. Ana Sandu *Source: Group 52_2019-2020 Archive*



Fig. 31. Elderly Dwellings | Street with Garden | Vatra Luminoasă Authors: St. Arch. Răzvan Badea Şuţu & St. Arch. Teona Dascălu Source: Group 52_2019-2020 Archive



Fig. 32. Nursing Home for Elderly with Neurocognitive Disorders | *Strips* | Vatra Luminoasă Author: St. Arch. Teodor Cristian Dascălu *Source: Group 52_2019-2020 Archive*



Fig. 33. The Square Courtyard_Elderly Nursing Home | 7 Courtyards | Vatra Luminoasă Author: St. Arch. Ana Maria Lakatoş Source: Group 52_2019-2020 Archive

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