I centri minori... da problema a risorsa

Strategie sostenibili per la valorizzazione del patrimonio edilizio, paesaggistico e culturale nelle aree interne

Small towns... from problem to resource

Sustainable strategies for the valorization of building, landscape and cultural heritage in inland areas

A cura di / edited by Pierfrancesco Fiore Emanuela D'Andria



Nuova serie di architettura FRANCOANGELI



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The editors, the publisher, the Organizing Committee, the Scientific Committee and the Honorary Scientific Committee cannot be held responsible either for the contents or for the opinions expressed within the articles. The published papers, whose contents were declared original by the authors themselves, were subjected to a *double blind peer review process*.

Double blind peer review process

Scholars have been invited to submit researches on theoretical and methodological aspects related to the valorization of small towns in inland areas, and to show real applications and experiences carried out on this topic. Based on double blind peer review, abstracts have been accepted, conditionally accepted or rejected. After this selection, the authors of accepted and conditionally accepted abstracts have been invited to submit the full papers. These have been also double blind peer reviewed and selected for the oral session and publication in the Conference Proceedings by professors and experts of different topics and subjects.

Thanks for cooperation: Giacomo Di Ruocco, Giuseppe Donnarumma, Carmelo Falce and Anna Landi

All the texts and images have been provided by the authors.

Cover image: Emanuela D'Andria

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Presentation

by Pierfrancesco Fiore*

«To go back to where I was born, listen to the birds sing again, wander around the house and garnet and on the fields again, and between the vegetable gardens and the ancient paths...» W. Whitman

The International Conference entitled «Small Towns...from problem to resource. Sustainable strategies for the valorization of building, landscape and cultural heritage in inland areas», held at the Department of Civil Engineering of the University of Salerno, on 19th and 20th September, was a fruitful opportunity for discussion on a topic that has attracted much interest in recent years, that one of abandoning and depopulating of small centers in inland areas.

During the two days of study and presentation of the works, by professors and researchers from Italian and foreign universities, problems related to the aforementioned topic were exposed and, at the same time, multiple proposals and strategies have been shown to hold a phenomenon that is affecting not only many European countries, but also the whole world.

In the last decade, the phenomenon of depopulation and decline of small towns and villages has assumed considerable dimensions, with demographic, social, economic consequences and reflections on the conservation and protection of a wide cultural heritage.

Indeed, we are witnessing an increasingly intense demographic centralization in medium-large cities and metropolises, which, according to the most accredited projections, is destined to increase over the next thirty years.

From what has been highlighted, the problem is extremely complex and presents itself with different dynamics, showing a widespread degradation of the territory and the consequent disappearance of the signs that characterize the landscapes on the small scale.

There are many causes, including the current economic crisis, the geographic isolation typical of depressed regions, the lack of work that forces young people to move away to find a job, the lack of efficient infrastructures and services (education, health, leisure, sport, etc), the changes in lifestyles and consumption patterns that are homologated and conditioned by large commercial brands, etc.

The risk is that the small centers may become places of oblivion, that the characteristics of a secular civilization may be lost and, with them, the identity not only linked to buildings or more generally to artefacts, but also to traces and elements of material and immaterial culture.

The degradation can take over, especially where the ancient system of settlements is preserved, the historical structure of the crops, the organization of rural routes, the original relationship between buildings and territory.

Small centers are, in fact, a precious heritage of cultural identity that must be protected, as is well emphasized in the International Charter of Krakow (2000): *«Each community, by means of its collective memory and consciousness of its past, is responsible for the identification as well as the management of its heritage. Individual elements of this heritage are bearers of many values, which may change in time. The various specific values in the elements characterise the specificity of each heritage. From this process of change, each community develops an awareness and consciousness of a need to look after their own common heritage values».*

In recent years, there is a greater sense of responsibility and interest in dealing with these issues, not only due to the risk of the "desertification" of entire areas, but also for the opportunities that the resources therein can offer, as well as for a more balanced and sustainable territorial demographic distribution.

The attention has increased also due to greater common sensitivity to cultural heritage, landscape, history and environmental quality, all of which can be exploited to encourage investments, tourism and land conservation.

* Conference Chair

That of the valorization of small towns, therefore, is a vast field upon which to base a new idea of conservation and regeneration, producing added value, growth and rebirth in contexts that are undergoing a depopulation process.

For this purpose, the choice of an appropriate intervention strategy is of crucial importance, but requires accurate assessments, since it must guarantee conservation and development at the same time, or rather the safeguarding of tangible and intangible heritage together with economic growth. This strategy should also guarantee prospects for investment and living conditions for those who settle (or re-settle) permanently and aspire to a higher level of services and quality of life, as well as safeguarding the historical structure of the settlements.

The STC2019 Conference was an opportunity to allow participants to make their knowledge available and to present innovative strategies, methods and approaches, in a moment of meeting, reflection and collaboration that saw the participation of professionals from many disciplinary sectors, united to tackle a complex topic, in which every slant has been analyzed, investigated, deepened (from a single point of view, but then compared with other points of view), under the able direction and synthesis capacity of the chairman.

The different and qualified skills have witnessed the strong interest of the scientific world for the proposed topic. Furthermore, the presence of foreign scholars has offered the opportunity to understand the logic and experiences of places that are also distant, but united by a minimum common denominator that can be summarized in the search for actions in order to guarantee growth and development in marginal and depressed places, within the framework of criteria based on sustainability, on the study of change processes, on forecasting future needs, on safeguarding environmental values and protecting and enhancing cultural heritage.

The goal, unanimously declared, is to revive the internal areas, so that the small centers, in the complex panorama of contemporary society, can play a role of revitalizing the territory. From this point of view, the analyzes and ideas received from the authors (strategic studies, analysis models, feasibility studies) will certainly be able to promote its implementation, setting themselves as guidelines for the realization of interventions aimed at revitalizing the built environment, upgrading the infrastructures, reorganizing the territory and, at the same time, recovering identities and cultural heritage.

It is true that these settlements scattered throughout the territory are lacking in services and with few infrastructures, work is scarce (especially for the young generation) and opportunities for meeting and exchange are very limited, but they are also "human places", where the air is healthier, the discomforts of anthropic concentration are reduced (unlike the city which presents traffic problems, lack of parking spaces, lack of green spaces, etc.), where ancient knowledge and traditions (conserved and handed down for generations) characterize their identity and represent a treasure of knowledge and memories.

In addition, a large part of traditional craftsmanship is concentrated in small urban centres, along with high quality food production, as well as unique natural resources such as mountains, hills, streams, vegetation of every kind and cultivations that characterize the region. All factors that can help unexplored "economies" to develop with high added value, capable of producing well-being and safeguarding the territory, which can guarantee sustainable economic development.

From the research results presented by the authors of interesting papers, it was understood that a trend reversal is prefigurable and that there are all the conditions to hypothesize a repopulation of the internal areas.

However, the debate has shown that we will have to deal with the dynamics of the global economy, with technological revolutions, with the use of machines that will perhaps completely replace man in work, with advanced digitalization; in summary it was reiterated that it is necessary to take into account the dynamics and the speed of changes that characterize our time and the influence that these dynamics may have about the settlements transformations, in the awareness that innovation, as happened in the past, will certainly lead to an evolution of our life models and a repositioning of mankind within his environment in the future. Therefore, we must be ready to manage changes quickly, to understand developments and avoid or at least mitigate any risks that may arise.

Among the conceivable impacts of the resettlement of inland areas, it is possible to imagine the transplant of pre-established housing and/or industrial-type models that have nothing to do with the characteristics or typical features of realities closely linked to the countryside, to craftsmanship, to the spirit of community.

Thus, it is necessary to understand them thoroughly, intimately and profoundly, as Angelo Sofo (2010) states, we must *«put ourselves in a listening situation, try to perceive the invisible behind the visible to get in touch with the essence of that small piece of Earth on which we are called to intervene»*. Regaining marginal areas means putting in place a culture of knowledge that can reveal its history, fragility, potential, even before hypothesizing any actions or interventions.

The loss of the ability to recognize the true nature of a place can, in fact, lead to the uprooting of the individual, the severing of the relationship between man and his environment, through the implementation of economic power that distorts, destroys, erases the traces of time in the name of "progress".

The studies and cognitive analyses of the Authors of STC2019 are important to avoid this danger that could affect an immense collective heritage: in the process of knowledge, the artefacts (even those that are apparently insignificant) and all the elements related to the sphere of work, craftsmanship, and traditions, occupy a central role, because they are expressions of the local culture, in the context of economic dynamics and of socio-cultural values that have developed and guided human action over the centuries.

To look at the settlements of a given territory in these terms means to consider them products that speak of, and to the people who live and transform them, in continuous interaction with the environment. According to this meaning, the expression "place", even if used to indicate a portion of space that is materially delimited, actually overcomes the pure spatial and material extension, having its own well-defined character, the so-called *genius loci*.

There are elements of the experience that are grafted into the sphere of traditions, artisan work, subsistence economy, social relations, etc. that strongly characterize the built environment and reveal its meaning; grasping the signs of the meaning of place means *«giving aesthetic value to social facts»* (Mukarovsky, 1971).

It is fundamental to examine, in this sense, the most negligible details, even if apparently insignificant, to analyse the details that seem marginal, which are sometimes revealed as revealing. Even if we want to carefully examine the spatial elements with analytical criteria, we must not forget the *«small discernments»* as Winkelmann said, or identify all the clues which can be traced back to the identity framework of places.

The initiatives aimed at the recovery and valorisation of small towns therefore require an integrated approach with an analysis of the attributable factors, not only of the more technical aspects, but also of those linked to the models of re-habitation, in which space and time have values related to identity, memory and traditions; the place is such *«as inhabited, humanized, recognized, periodically refounded by the people who are part of it or feel part of it»* … *«the places are social and cultural constructions, the result of continuous production by the inhabitants»* (Teti, 2017).

The real challenge is to recompose the distance between the humanistic disciplines with the scientific ones, to ensure that the qualitative assessments correspond to quantitative procedures, indicators and analytical methods that can somehow be translated and summarised. According to this approach, it is extremely advisable to submit to the scrutiny of economic verifications because, if, in the evaluation of the interventions the promoter does not detect the conditions to obtain a profit commensurate with the risk, it will not activate the development process that will lead to a successful conclusion of the project.

It is on the basis of the aforementioned considerations that the topics have been developed, to which the Authors have joined with great enthusiasm, presenting interesting papers, and embracing the main purpose of the initiative, or the valorization of small towns, in a general vision linked to the concept of sustainability in its various meanings and definitions, with the clear objective of revealing the potential of marginal places, of seeing the other side of the coin, that of opportunities, of the existence of unexplored resources.

At the end of the two days of the Conference works, it can be said, with absolute conviction, that the small towns, and more generally the inland areas, will be able to have a role of relaunching the territory and, at the same time, will be able to represent new fruition models of the building, landscape and cultural heritage, in line with the demand and needs of current and future lifestyles.

In thanking those who participated and those who contributed in various ways to the organization of the event, I express a greatest gratitude to all the Scientific Committee members, the referees and the Conference organizing staff.

It is certain that the interest in the proposed topic will constitute a starting point for a virtuous process of deepening to the advantage of the most fragile areas, in a historical moment, the current one, characterized by strong contradictions and uncertainties regarding work, environment, cultural and social identity.

Foreword

by Enrico Sicignano^{*}

Urban development and growth, with large building and housing concentrations in big cities, have led to the collateral effect of the abandonment of small cities and towns, of villages, especially distant and decentralized ones, mainly located in difficult areas from the point of geomorphological view, where good and efficient road, rail, infrastructure, public transport, primary services, etc. are still absent.

From the 1950s onwards, but along a timeline that started two centuries ago, millions of people left their places of origin to move to the big cities in search of work in the manufacturing and tertiary sectors, looking for a better future for themselves and their families.

From a near and remote past but also in the present, migration flows have slowly and constantly occurred and still occur within the same nations, within the same continents and between continents. The outcome of all this is that after decades there is a widespread and consistent building and urban heritage, almost always in difficult, hilly and mountainous areas, made up of small villages and semi-abandoned villages or inhabited by a few dozen families, mainly by elderly people while the younger ones study and work in big cities in the same country or even abroad.

Faced with the new and addressed knowledge imposed by globalization, local heritages also constituted by unwritten knowledge and collective memories seem to have apparently disappeared. These places are sometimes inhospitable and not at all comfortable, while also incompatible with the requirements and needs of modern life.

The city and the country, ancient villages have continuous and multiple architectural barriers such as steep slopes, the presence of stairs everywhere, the objective impossibility of having ramps, elevators, escalators for the elderly and the disabled, the technological systems up to standard and new generation, hygrothermal comfort, parking space under the house ... and everything that can contribute to the so-called "living well-being", small achievements and goods that no one (above all the elderly and disabled people) intends today to give up. Honestly speaking beyond "not wanting to renounce", the "not being able to renounce" sometime is imposed.

On the other hand, if this were feasible, it could reinforce that ancient relationship between the people and the places they live in. On the contrary, paradoxically, we are also witnessing a defenseless tearing and breaking of that bond in extraordinary places and cities due to the anthropological mutation of the user.

In this case, the city is not primarily "minor" but "major", it is neither dead nor moribund but of great artistic, architectural and historical value.

It is the case, but only as an example, of Venice, that over the last decades has become something else, a mega receptive and chaotic urban structure (with hotels, B&B, restaurants, sandwich bars, ice-cream shops, etc.) for a tourist use mainly of mass, in continuous movement, mobile and not stable, not cultural but pseudo cultural certainly superficial, with the presence at times of a single day, sometimes of only a few hours, a "hit and run", a "throwaway".

The metaphysical presence of the titanic cruise ships that cross the lagoon every day with thousands and thousands of passengers is also a negative testimony. Not only are they out of scale with the building curtains and the palaces of the Serenissima but they constitute a serious, continuous and imminent danger of potential, possible destruction of the same to the occurrence of even the slightest error of naval maneuver. Italian cinema and literature have also become interested and intertwined with this issue. Two great directors, Luchino Visconti and Ettore Scola have both focused on this topic.

In the film "Rocco and his brothers" of 1960, Luchino Visconti tells about a humble southern family who move from a Southern farm to an industrialized North. Peasant society enters a crisis in a traumatic and dramatic manner when it relates to new, other rhythms and lifestyles, other models, other times, other values of the industrialized and capitalist northern society. The southern family disintegrates, loses its references and its values; it leaves behind a world without conquering a new one. The country of origin, which also means its own identity, is canceled and is irrecoverable.

* Honorary Chair

In 1973, Ettore Scola shot the film "Trevico-Torino - Journey into Fiat - Nam" and talked about a young man's journey from his family's town in Alta Irpinia, Trevico, to Turin. On this journey, at the beginning and end, the world of life projects, dreams and theirs – in whole or in part – realization, etc... is associated and, on the other hand, the world of affections, memories and the most cherished values (family, friendship, relationship with places, with nature, with people) of the village of origin is associated at the same time.

At various levels, the political, the social, the economic, the cultural, we look at this complex reality in order to analyze it, to study it from the perspective, in the intention and in the hope of making it to reborn to new life.

Small towns, hamlets, abandoned minor centers are part of our past, of our identity and therefore deserve the utmost attention and care. In Calcata, in the province of Viterbo, a unique, unrepeatable experiment was carried out, not replicable in form but certainly to be kept as a reference as a methodology for setting and interventions. We should think of a "new place" in an "ancient place", which is a place of life, of knowledge, of meetings, of exchanges and where life alternates incessantly day and night. The restoration and building and urban restoration of these places do not mean passive mummification operations, nor to propose false historical projects, nor to offer shameless pseudo-modern interventions that sometimes tamper with, alter, violate places.

It is difficult but not impossible, wise and courageous to take another way, that of belonging to onÉs own time and at the same time have respect and consideration for an ancient structure. The complex problem that is focused in the present international conference unwinds itself between the real facts of today and the ancient stories that the stone walls and the "spirit of the place", the genius loci, if wisely listened to, are able to reveal.

The aim is to re-launch in the space of the territory and of the urban fabric, even the smallest, and over time works and places upon which oblivion and silence had fallen and continue to fall.

The expected result cannot be comparable to that which derives from so many interventions that have focused and invested on the sure economic, social, taste, collective liking that today is so fashionable or that it can only be included among the positive profit transactions or of draws of cold economic budgets. Dealing with the revival of a small village or town belongs to the category of small things that can also be great things at the same time.

It is just a question of magnitudes of value.

«Architecture already begins when two bricks are joined together by a thin thread of mortar» stated Mies van der Rohe.

Topic 3 Strategie, proposte metodologiche e progetti | Strategies, methodological proposals and designs

I papers hanno affrontato proposte, strategie e progetti per la rigenerazione e la valorizzazione delle piccole città, compresi approcci innovativi e sperimentali, per raggiungere i seguenti obiettivi: inversione della tendenza alla decrescita demografica; consolidamento delle identità locali; recupero e conservazione integrata del patrimonio edilizio esistente; salvaguardia del paesaggio e dell'ambiente; gestione e mitigazione dei rischi naturali; implementazione di nuovi spazi / servizi e nuove infrastrutture; trasformazione controllata delle dinamiche socioeconomiche e lavorative in atto o da stabilirsi; promozione del patrimonio culturale attraverso azioni di marketing, gestione e fruizione, anche con l'utilizzo di nuove tecnologie informatiche.

The papers dealt with proposals, strategies and projects for the regeneration and valorization of small towns, including innovative and experimental approaches, to achieve the following objectives: reversal of the tendency to demographic decline; consolidation of local identities; integrated recovery and conservation of the existing building heritage; protection of the landscape and the environment; management and mitigation of natural risks; implementation of new spaces/services and new infrastructures; controlled transformation of socio-economic and work dynamics in progress or to be established; promotion of cultural heritage through marketing, management and fruition actions, also with the use of new information technologies.

Developing friendly environments with aging people to offset depopulation in rural areas

by M. Rosario del Caz Enjuto*

Keywords: age friendly environments, aging, depopulation, rural areas

Topic: 3. Strategies, methodological proposals and designs

Abstract

Population aging is one of the worrying realities facing most developed countries. It is a problem that affects both urban and rural areas alike but which proves more disturbing in the latter, given that the issue of aging is compounded by the problem of depopulation. It is a problem which public authorities and indeed society as a whole must face up to. One possibility is to develop friendly environments for the elderly. Dwellings or public buildings, streets, parks or other buildings as well as heritage spaces can all be designed, refurbished or planned with the idea of being elderly people friendly.

This work explores the possibilities and strategies to make these environments friendly in small towns in order to stabilise the existing population and attract new residents, offering attractive conditions for not only for the elderly but indeed for people of any age, given that a space which is friendly for the elderly is one that is friendly for everyone.

1. Introduction

The data leave no room for doubt: the population is aging, particularly in European countries, added to which it is becoming increasingly urban, and leaving rural areas empty. The two realities have points of contact, given that the phenomenon of aging affects small municipalities more than large cities, even though it is common to all parts of the country. However, just as aging is an irreversible reality, due to social and economic progress, efforts must be made in small towns to slow down and even revert the depopulation trend, although this would imply wide-ranging changes at a social, economic, and urban scale among others. These changes must begin by considering the elderly not as a burden but as an asset, with different needs, but with present and future potential.

The changes associated with aging (as a stage of life) lead to people forming new relationships with space and time, and with the environment that surrounds them. These changes are the result of a gradual decrease in physical, functional and perceptual abilities, as well as a reduced capacity to adapt to stressful situations and variations. These circumstances mean that older people need to forge affective links with their physical environment (nearby, middle and distant) and that they are somewhat more sensitive than other generational groups to the problems derived from inadequate design or functionality of the physical spaces that host their daily activity. When the environment proves to be deficient, and even hostile, the elderly may end up moving away from it, seeking refuge in private spaces and losing the social relations required for their personal development. For this reason, for almost two decades now the World Health Organization (hereinafter WHO) has been promoting so-called active aging, which entails improving the quality of life of people as they grow older, allowing them to participate in society according to their needs and abilities.

From an urbanistic point of view, which is the one addressed in this text, this implies revising intervention criteria in the environments that are inhabited by people, and embracing the perspective of age so as to make such places friendlier. In this sense, and although the work is grounded on specialized literature on the subject, a personal method has been established, in which it was first considered necessary to define the attributes of

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friendliness related to urbanism: in other words, we must first understand what characteristics a physical space should fulfil in order to makes people's lives easier and allow them to lead a full life, developing their full potential. Subsequently, once the attributes have been defined, the parameters and conditions for designing and arranging the space are established to respond to them. The work establishes four types of attributes of friendliness (autonomy, conciliation, sociability, and representativeness) and four types of physical spaces where human activity of a public nature is mainly carried out. For each of these, parameters and conditions are proposed which, based on the attributes, make them friendly. Applying this methodology results in a matrix that helps define, for each type of space, a series of specific conditions that take into account the attributes of friendliness.

Given that, as indicated at the beginning, the problem of aging is even more acute in villages, the parameters and conditions defined have taken into account the particularities of the rural world. However, it should be noted that the application of the methodology can be extrapolated to cities, although it would be necessary to make changes when establishing the specific adjusted parameters, determined by the change of scale. It should also be pointed out that promoting physical environments that are elderly friendly, through design and planning, means promoting environments that are less discriminatory, more inclusive, sustainable, comfortable and friendly for people of all ages, whether they live in the rural or the urban environment.

2. Population aging and depopulation of the rural environment: two recurrent problems of modern-day developed societies

2.1. Population aging

According to the WHO, European society is aging for two reasons: low birth rates and increasing longevity. Whereas in 1950, only 12% of the European population was over 65 years old, this proportion has now doubled, and forecasts project that by 2050 more than 36% of the European population will be over 65 years of age.

Since the mid-twentieth century, there has been a revolution in longevity. Average life expectancy at birth has increased by 20 years since 1950, reaching 66 years, and is expected to have increased by a further ten years by the year 2050. This increase will be more noticeable and faster in developing countries, in which the elderly population is expected to quadruple over the next 50 years (Alvarado and Salazar, 2014). Such a profound demographic transformation must, perforce, have consequences for both individual and community life as well as in political, social, economic, cultural, and urban aspects, among others. However, negative considerations must be avoided, as older people offer valuable resources, which are often ignored, and which make an important contribution to the structure of society.

2.2. Depopulation of rural areas

In its report *The EU's response to the demographic challenge* (Dictamen del Comité Europeo de las Regiones, 2017), the European Committee of the Regions indicates that the meagre population growth of the European Union is confined to cities, while rural areas show population losses. The case of Spain is highly significant. According to the statistics of the *Estadística del Padrón Continuo* of the National Statistics Institute (INE, 2018), towns of less than 2,000 inhabitants are becoming empty. If in 1970, 11% of the Spanish population lived in such areas, today the figure stands at only 5.9%. Coupled with the age of the inhabitants in these areas, this poses a major challenge for the future (Fig. 1).

In its analysis of rural areas, the aforementioned Committee of the Regions warns of the main reasons why depopulation is occurring, such as «less access to education, employment opportunities and/or difficulties in accessing public services or transport», as well as access to public and private health.

Organising facilities for the elderly, which requires proximity between supplier and consumer (the elderly themselves), seems a difficult mission. The distribution of the population does not help the designers of efficient models. There are 773,249 people aged 65 or older living in 5,686 rural municipalities, which is only two hundred thousand less than the total number living in just two municipalities, Madrid and Barcelona (Ayala and Abellán, 2018).

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Fig. 1 – Population by age group and municipal size. Spain, 2017 – Source: http://envejecimientoenred.es/la-espana-rural-se-vacia/ (visited on April 29th, 2019)

3. Active aging and elderly-friendly cities

In 2002, the WHO defined active aging as «the process of optimizing opportunities for health, participation and safety in order to improve the quality of life of people as they get older». This organization recognizes six types of key determinants of active aging: economic, behavioural, personal, social, those related to health and social systems, and those related to the physical environment (OMS, 2002).

As regards the determinants directly related to the physical environment, the WHO considers issues such as accommodation (housing and neighbourhood), which need to be both adequate and safe, depending on the location, services, transport, accessibility and adapted design, as well as a healthy environment. It also mentions a whole range of aspects that can guarantee a safe and clean environment as well as one in which there are no physical barriers, and which offers higher levels of functional capacity and less risk of falls.

In light of this, an age-friendly community will be one that optimizes opportunities for health, participation and safety as people get older, and which adapts its structures and services so as to be accessible and inclusive with older people who have different needs and abilities. Friendly environments must provide assistance and protection, whilst respecting the autonomy and dignity of the elderly, and helping people to maintain their independence for as long as possible (OMS, 2015). In order to support those municipalities who wished to make these ambitions a reality, and drawing on the participation of the elderly in the process, and taking full advantage of opportunities at the local level, in 2010 this organization formally presented the World Network of Friendly Cities and Communities with Seniors (AFC). Two years later, it signed a cooperation agreement to promote the Network in Spain and Latin America with the IMSERSO¹. This latter is the body responsible for promoting and supporting the project in Spain, as well as for providing information, documentation, advice and assistance to municipalities both during the accession process as well as in the development and implementation phases.

As expected, the guideline proposal to create friendly rural environments set out in this text stems from the work of the WHO and the IMSERSO², particularly the Vancouver Protocol, which is a method for formalising friendly cities (IMSERSO, 2016), but which puts forward a personal and detailed proposal that goes even further, defining a matrix which relates the attributes of friendliness with parameters in order to achieve friendly environments.

¹ The Institute for the Elderly and Social Services (IMSERSO) is one of the managing entities of the Spanish social security system, and is responsible for managing social services related to the elderly and people in situations of dependency.

² This methodology includes quantitative analyses (performed by experts) and qualitative analyses (carried out by different focal groups, such as the elderly themselves, as well as suppliers of goods and services). The analyses and proposals must refer to eight domains: 1. Buildings and outdoor spaces; 2. Transportation; 3. Housing; 4. Respect and social inclusion; 5. Social participation. 6. Communication and information; 7. Citizen participation and employment, and 8. Social services and health.

4. Friendly rural environments: some basic parameters

4.1. Attributes of friendliness

From an urbanistic standpoint, it has been considered that in order to be friendly a space must guarantee the greatest degree of autonomy for people, must allow for a balance between the different aspects of life, must foster socialization of people and, finally, must provide adequate conditions of representativeness (González, 2016).

Autonomy

The autonomy or independence of the elderly in the urban space will be achieved if their **safety**, **accessibility** and **health** are guaranteed. The loss of physical abilities, agility and rapid reaction to external factors of daily life can lead many people, as they get older, to isolate themselves in their homes, for fear of not feeling secure, encountering major difficulties in accessing certain places, or suffering adverse health effects. Older people will therefore occupy and live in a space in a more intensive manner if they perceive it to be safe, accessible and healthy.

Conciliation

Reconciling the everyday needs of the elderly with their family life and that of their caregivers, as well as with a possible work or occupational activity, is a key attribute that also affects society as a whole. In order to reconcile the activities involved in the different areas of life, planning must implement **proximity** and **diversity** strategies. Services and equipment, especially those related to health and vital maintenance, must be accessible and close to everyone and must be integrated into a diverse environment through a good design of urban mobility.

Sociability

Sociability refers to the need to generate areas of social encounter and community interaction that promote intergenerational exchange and mutual help among people, fostering social roots and the prevention of loneliness and isolation of the elderly. This area not only requires a good design, which ensures **comfort**, but also the proper management of the activities offered therein, with continuity throughout the different moments of the day and the year.

Creating a friendly and comfortable space makes people stay there longer as well as in a more relaxed and stress-free manner in order to establish better conditions for social interaction and spontaneous activities. In addition, the **vitality** of a space, which also generates a sense of safety, is undoubtedly an incentive for people to spend time in open spaces and fosters citizen coexistence.

Representativeness

Representativeness involves the recognition, as well as real and symbolic visibility in the elderly community. To achieve a more egalitarian and fair environment, it is necessary to show how people, who have been part of the past of public spaces and who are part of their present, can exert their influence in small towns. By keeping memory and **identity** in place, it is possible for elderly people to take charge of the areas in which they spend time and to create emotional ties with them.

To deal with this lack of representativeness, mechanisms must be put in place to recognize the important and irreplaceable role that citizens play in transforming the immediate urban environment through **participation** in the analysis and diagnosis of spaces and in decision-making proposals and projects geared towards change.

Given the loss or slowing down of certain capacities in elderly people, clear and non-stereotyped **signalling** of the different spaces and uses, which is adapted to these different capacities, is also required.

4.2. Areas of application

In order to more precisely establish the guidelines and/or design parameters of the environments, four types of physical and functional configurations are defined: the road network, squares and parks, the facilities and spaces associated with housing.

• The road network

The road network refers to the set of physical infrastructures and services that allow for the interconnecting of the different parts and elements that make up the urban environments through which we move to carry out everyday activities. The main function of these components of the urban structure is mobility, although it is not the only one since, at the same time, they are also important spaces of socialization, as well as for citizens' social and cultural exchange (Gehl, 2006).

· Parks and squares

This comprises all open public or publicly used spaces, where rest and recreation, leisure, cultural, sports and other activities are carried out. These spaces are of vital importance for older adults as they are meeting places, where social relations of various types are established, and where social interaction and intergenerational exchange and coexistence take place.

Facilities

The facilities are public buildings or buildings of public use that offer services and activities related to personal development as well as social and community life. In addition, they provide assistance related to health and wellbeing, seeking quality of life for the elderly. They are spaces of reference in urban environments, where exchange, coexistence and mutual aid are generated.

• Spaces linked to housing

This refers to spaces for public use directly related to residential buildings. These are the main entrances to the home itself and are related with the neighbourhood. The proximity of these spaces to housing and the relationship with neighbours makes them important places for the day-to-day life of the elderly, where all kinds of spontaneous activities occur.

4.3. Parameters and guidelines to achieve friendliness

1. The road network and public transport

• Design of pavements

The pavement is the space for pedestrians and, therefore, for the majority of elderly people. Older people raise their feet slightly less than those who are younger when walking and any slight unevenness, which may seem unimportant to younger people, risks becoming a trap for the elderly, and forces them to be observant and constantly look downwards, at the expense of possibly missing other important visual signals around them. All of these circumstances slow them down. Pavements must therefore be as flat and solid as possible, non-slip, and without any irregularities, cracks, potholes, sharp edges, loose stones, etc.

The design and dimensions of the pavements are also important. Wide pavements are more commonly used, especially if they are distributed in different band uses: stationary or resting areas with benches, space for walking (enough to allow different pedestrian speeds), service space for shops (shop-windows and entrances). In this way, older people will walk on public pavements more at ease, without worrying about disturbing or interrupting the flow of those who move more quickly. It is also necessary to even out transitions between the height of the pavement and the level of the road for those who are in a wheelchair or who may need the help of support elements, and to facilitate the passage of shopping trolleys without having to flank an often complicated barrier.

• Traffic calming and shared space

Speed is a variable that greatly affects the comfort of the elderly in urban spaces. Therefore, any measure aimed at slowing down the speed of traffic or removing the need for elderly pedestrians to hurry when crossing a street will help them to appropriate such public spaces. Given that most roads in rural areas receive little traffic, the best option for non-structuring roads is seen to be the solution involving the so-called shared space or naked streets. This is a type of solution in which all road network users (pedestrians, drivers, and cyclists) share a space in which there is no distinction between pavement and roadway.

This means that no other mechanisms are required for regulating the traffic (Clarke, 2006).

This type of space requires rules of coexistence, starting with reducing the maximum speed for vehicles (20-

30 km/h), as well as the constant attention of drivers, who must interact visually with the other users of the space. Solutions such as this would also allow streets to take on greater importance as spaces of coexistence and places to be.

• Pedestrian crossings

On roads in which, due to their structuring nature, it is not possible to design a shared space and where, on the contrary, segregated traffic routes must be created, pedestrian crossings will need to be provided. For this, zebra crossings will be located at regular intervals. This will allow pedestrians to choose different routes to reach their desired destination. Another action which has proven successful in facilitating pedestrian mobility is to raise these crossings (at least some of them) up to the height of the pavement so that pedestrians do not need to change the level at which they are walking (they do not need to step down on to the road). Such raised crossings also force cars to slow down and increases visibility from the crossing.

• Road lighting and visual control of the environment

Standardised illumination of public roads and control of the surroundings also enhances the feeling of safety and encourages the elderly to use public spaces at all hours of the day, thereby breaking with the routine of using a specific type of place at a specific time of day and linked to a specific exclusive group of people. The choice of lighting, the location, the variety of the space to be lit, as well as the design of urban elements that can hinder visibility taking into account transparency, height and density, are parameters that need to be borne in mind when seeking to create safe urban environments.

• Comfortable and inclusive design of routes

If, as previously indicated, the aim is to ensure that road spaces achieve a balance between traffic flow and their stationary and relationship function, their design must contribute to this. Routes must not therefore only facilitate accessibility (eliminating all types of architectural barriers) but must also seek the comfort of those who use them (Fig. 2). Providing trees in the road, as long as the physical conditions of the space allow for it, is imperative, since trees not only provide shade and humidity, but also help to improve air quality and offer positive sensory experiences. In general, most trees should be deciduous, as it is also advisable to have regularly placed banks or ischia support to facilitate temporary rest.

• Stops and public transport network

In general, the size of small towns and villages means that they do not need any urban public transport services although they do require interurban transport. Interurban public transport is a key issue that has a major impact on improving the mobility of the elderly. All too often, the non-existence or poor functioning of this type of public service negatively affects the lives of elderly people in rural areas. However, and taking into account the problem of population loss, public authorities should opt for on-demand transport services, rather than regular services. Elements such as accessibility, comfort and signposting of bus stops, as well as the financial aspects of the service (reduced fares for seniors) are other factors that need to be considered.



Fig. 2 – Age friendly road network – Sources: https://www.hoy.es/prov-caceres/pescueza-pueblo-facil-20180715003328-ntvo.html, http://www.helpagela.org/silo/files/ciudadades-amigables-con-las-personas-mayores-en-america-latina.pdf (visited on May 13th, 2019)

2. Parks and squares

• Proximity and equal distribution of green spaces

For the elderly, green spaces are fundamental, since they offer a feeling of well-being and freedom which, combined with the increased possibilities of intergenerational meetings, leads to a higher quality of life. Yet, if this is to occur, the right quantity, quality and distribution must be provided in rural environments. In a small town, it is not necessary to have large green spaces, but rather contained spaces that are close and accessible.

• Well-sized, clean and friendly spaces

Having a nice clean environment is one of the first aspects that figures prominently in the surveys conducted amongst the elderly. The aesthetics of the place as well as the scale, depending on its use, are key factors. Yet other elements to be considered are also pointed out, like the absence of any disturbance such as noise, bad odours, dirt, uncollected garbage, or graffiti. Some of these factors depend on maintenance, whilst others are directly related to planning and design.

• Incorporation of urban services: public fountains and toilets

Due to the physiological characteristics of the elderly population, providing such facilities in outdoor spaces has a greater impact on them than it does for the average user (Fig. 3). The need for an inclusive design and adequate maintenance and cleaning is also applicable at this point.

• Places of rest and protection against inclement weather

For the elderly, who have less physical stamina, any place or element in which to stop and rest for a while is essential vis-à-vis promoting physical activity in nearby public spaces. We should also add the need for these places to be in a climate-friendly situation with shade, sunlight or shelter, as required.

• Diversity and adequate design of street furniture

The design of street furniture, as well as its quantity and adequate layout, also determine, to a large extent how much the elderly use and enjoy public spaces. This issue must take into account the ergonomics of the elderly, and their conditions of use, which are determined by their physical and/or mental deterioration. Some of the factors that influence the improvement of these conditions are the materials used (they must be sensitive to changes in temperature), the height and depth of seats (not too low and with adequate depth) or the presence of armrests and backrests (Fig. 3). Furthermore, depending on the location of these elements, communication and social relation relationships can be favoured. Circular arrangement of these seats as opposed to a linear format favours social relationships and group conversations (Puyuelo, 2005).



Fig. 3 – Public toilet and ergonomic furniture in parks and squares – Sources: https://www.tribunasalamanca.com/noticias/los-tres-nuevos-aseos-publicos-en-parques-de-salamanca-costaran-129-dot-000-euros, https://elblogdefarina.blogspot.com/2016/04/ciudades-para-las-personas-mayores.html (visited on May 13th, 2019)

3. Facilities

• Equitable distribution and variety

As is the case with outdoor living spaces, the facilities and services for everyday daily life should be

distributed equally throughout urban areas so that they are close enough to all homes. The specific characteristics of the towns may lead to considering the use of mobile facilities, providing temporary services and organising outdoor activities.

· Recovery of traditional buildings and spaces

For the elderly it is important to generate a certain attachment with the built environment, such that maintaining the identity of the place and making it recognizable are key issues. Reserving areas of daily life in certain places of their environment that help to maintain the collective memory is recommendable. However, it is also necessary to provide spaces for generational interaction where stories can be told and memories recalled as a means of generating interpersonal links.

• Multifunctional spaces and adaptation of schedules

All too often, facilities are built for single use, which means that the spaces are unoccupied at certain times. This is especially problematic in villages, where there is less activity. As a result, we should consider other types of spaces as well as more versatile programmes that can generate diversity and vitality (Fig. 4). The schedules of the main services and activities must also be flexible enough to accommodate the needs of elderly people's carers or relatives.

4. Spaces associated to housing

• Spaces of identity, coexistence and proximity

The open spaces linked to housing may be understood as an extension of the home which, on many occasions, are shared by a neighbourhood. In these, external areas must be provided for people to spend time and sit, at the entrances or exits, and to have elements of transition with different levels of privacy.

• Tree-lined spaces in the vicinity of dwellings

As indicated, trees offer enormous benefits for the environment and for people's health. Not only are they able to trap dust, particles and substances from pollution, or to capture pathogenic microorganisms, but they also function as carbon sinks. Added to this is the positive effect they exert on human psychology, the attractive landscape they endow any place with or their ability to improve the hygrothermal conditions thereof, by providing shade and improving humidity levels (Fig. 4). For all of these reasons, it is necessary to have trees (especially if they are deciduous) near to the entrances to dwellings, which are the areas most often used by the elderly.



Fig. 4 – Public Market and friendly spaces associated to housing in Vauban (Friburg) – Source: http://oa.upm.es/38699/7/CONSTANTINO_MAWROMATIS_PAZDERKA_02.pdf (visited on May 13th, 2019)

Conclusions

By way of specific conclusions, a summary matrix is included, which lists the attributes of friendliness and the parameters and guidelines to achieve them in the different spaces selected. It contains some more parameters than those defined in the text, because the limited conditions of this kind of essay (Fig. 5).

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		Areas of application			
		The road network	Parks and squares	Facilities	Spaces linked to houses
Антоноту	Safety	 Enough and homogeneous road lighting Visual control of the environment Signalling Reduction of traffic speed Shared space Design of pedestrian crossings Organization and signalling of routes 	 Well-sized spaces Multiplicity of routes Visual control of the environment Homogeneous lighting Proper maintenance and cleaning Reservation of spaces for different activities 	- Signalling - Low floors opened to public space	- Limited dimensions spaces - Visual control and homogeneous lighting -Absence of closures
	Accesibility	 Continuous and unimpeded access Enough width of the pavements Soft transition between pavement and roadway unevenness Attention to disadvantaged groups Interurban public transport stops 	 Adaptation of spaces to all people Proper location of accesses Suitable pavings to each use 	- Adapted facilities - Mobile facilities and services - Strategic location	 Reduction of unevenness between the outer space and the entrance to the house Soft paving and soft slopes Proper wide access
	Health	- Equipped paths and walks - Places to rest - Places to eat and hydrate	Combination of different types of furniture Outside facilities for physical exercise Walks in green areas and water courses	- Quantity, quality and equall distribution of health facilities - Equipped open spaces for exercise practice	- Facilities and activities clos to buildings - Conditioning areas for walking
Conciliation	Proximity	- Short distances - Specific pedestrian routes	 Proximity to housing Proximity to senior centers Improvement of everyday journeys 	 Connection with the public transport network Homogeneous distribution Adaptation of schedules Help network 	 Proximity to living spaces Connection with the public transport network Strategic location Symbolic proximity Friendly commercial network
Conoi	Diversity	- Mix of uses on the ground floors of buildings - New axes of activity	 Adaptation of spaces to carers Spaces with different functions and uses 	 Conjunction of activities for all ages Varied offer Polifunctional facilities 	- Adaptation of spaces to carers - Spaces with different functions and uses (heterogeneity of typologies
11:4-2	Comfort	- Tree plantation - Proper urban furniture - Places to rest - Temperature control elements - Good townscape design	 Ergonomic furniture Inclement weather protected areas Elements for rest and support Accessible public toilets Adaptation of the pavings to each use 	 Inclusive design Proper use of materials and lights Associated outdoor green spaces Relation with the environment A generous access 	 Ergonomic furniture Multitude of places to sit o lean Elements of shade and climatic comfort Wooded areas in the vicini of dwellings
Sociability	Vitality	 Activities on the street Points of daily encounter Intergenerational and intercultural spaces. 	 Multiplicity of uses Diversity of street furniture Open spaces of different dimensions Fixed and temporary activities in the spaces Daily meeting points 	 Homogeneous distribution Multimedia facilities Relation with the environment Shared and friendly spaces 	Spaces of intergenerational coexistence (games, sports, cultural exchange activities) Productive and market activities Nearby spaces of different sizes
	Identity	 Maintenance of traditional spaces Maintenance of daily activities in the street Collective historical memory Numbermaker 	 Spontaneous appropriation Materials and local techniques Recovery of traditional spaces Recovery of activities and traditional outdoor games Collective historical memory 	 Maintenance of collective memory buildings Use of the constructive tradition Spaces for local economic initiatives Inclusive nomenclature 	 Multiplicity of uses The outer space as extensic of the space of the house. Use of own furniture in out space Domestic activities that go out to the street
2 annasantativanass	Participation	- Maps and audits on needs in the network - Programs "Walk together" - Co-design	 Group mapping Co-design Appropriation of spaces at different times of the day Equitable distribution of space Diagnostics and proposition of changes driven collectively 	 Assignment of spaces for entities related with the elderly Participation in the offer of activities Network of aid between associations 	Spaces for meeting and debate of the neighbors (transmission of experiences and knowledge) Community programmed activities Participation in exchange policies Constructive tradition Spaces for local economic initiatives
	Signalling	 Significant and non-stereotyped signalling Maps with information about pedestrian distances Accessible information about events and activities 	- Significant and non-stereotyped signalling - Signallization on pavings and poles with readable typography - Use of color and textures	 Significant and non- stereotyped signaling Signallization in pavements and posts with readable typography Use of color and textures Accessible information about events and activities 	 Significant and non- stereotyped signalling Signallization in pavement and posts with readable typography Use of color and textures

Fig. 5 – Matrix that relates the attributes of friendliness with the parameters to achieve it in four urban spaces – Source: elaboration of the author

As pointed out, aging (both individual and collective) is an irreversible fact but is one which need not be considered negative. Society must simply become aware of this reality and implement an array of policies to counter it. Urban planning must play a key role in adapting environments (rural, urban and territorial) to the capacities and conditions of an aging population (Viejo, 2019). Yet this must be seen in a positive light in the sense that what is a friendly space for the elderly will also be a friendly space for other generations and social groups.

For their part, rural environments, which should be the focus of particular attention and which face such enormous difficulties in attracting and maintaining population, would be made more appealing areas for people to live in if they were able to offer good spatial conditions for those who are growing old. Adapting environments in order to make them more friendly is obviously essential, although it is not enough. Yet it is a political expression of the concern for alleviating the problems these areas face.

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