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Networks, Markets & People

Communities, Institutions and Enterprises Towards Post-humanism Epistemologies and AI Challenges, Volume 3

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Preface

This volume contains the proceedings for the International Symposium "*NETWORKS, MARKETS & PEOPLE for transitioning settlement systems. Communities, Institutions and Enterprises towards post-humanism epistemologies and AI challenges—#NMP 2024*", scheduled from 22 to 24 May 2024, in Reggio Calabria, Italy.

The symposium was promoted by the European Cultural Heritage Enhancement Lab—ECHE Lab (former UNESCO Med Lab), Mediterranea University of Reggio Calabria (Italy), with ASTRI Scientific Association and the National Italian Committee of ICOMOS.

The Symposium is organized in partnership with: CETRAD, Centre for Transdisciplinary Development Studies, University of Trás-os-Montes e Alto Douro, Vila Real (Portugal); NEUROLAB, Mediterranea University of Reggio Calabria (Italy); GRUPO ANTE, University of Santiago de Compostela (Spain); LaborEM, Mediterranea University of Reggio Calabria (Italy).

The Symposium is mainly supported by a qualified network of scientific societies: SIEV—Società Italiana di Estimo e Valutazione; SIIV—Società Italiana Infrastrutture Viarie; AIIT—Associazione Italiana per l'Ingegneria del Traffico e dei Trasporti; SITdA—Società Italiana di Tecnologia dell'Architettura; AISRe—Associazione Italiana di Scienze Regionali; SISTur—Società Italiana di Scienze del Turismo; AGEI—Associazione dei Geografi Italiani.

NMP2024 aimed to promote the scientific debate about the effects that the contemporary environmental, technological, social and economic global challenges produce on settlement systems, especially in Inner Areas and metropolitan cities of the Mediterranean basin.

Contemporary settlements express the distance between the built environment inertia and the "liquid" society flowing underneath. Blurred lines substituted the neat dualities such as culture-nature, urban-rural, central-marginal, affluent-deprived, enacting perpetual changes in between polarities.

The progressive increase in population raises new issues connected with resources availability and the ecological footprint of anthropic activities.

The theme of the green transition requires multidisciplinary points of view, touching on very different issues such as infrastructures and mobility systems, green buildings and energy communities, ecosystem services and land consumption.

In this scenario, a post humanist epistemology assumes that humans are dependent on the environment, and part of a larger evolving ecosystem whose agency is distributed through dynamic forces. Climate change challenges reinforced the understanding that human is entangled with its environment, encouraging in defining novel epistemologies, including, but not limited to, several disciplines: architecture, urban studies, economics, cybernetics, ecology, ethology, geography, art, psychoanalysis, sociology, anthropology and quantum physics.

The new frontier of adaptive and flexible production, supported by the ongoing digital revolution, encourages a rethinking of the concepts of proximity and interdependence within human settlements, with a paradigm shift in the center-periphery dualism. In this context, the social reproduction approach is mainly oriented at spatial justice, re-use, regeneration and environmental care.

Digital technologies and artificial intelligence bring extraordinary potential to institutions, companies and social organisations, but also carry the risk of negative impacts of unmanaged innovation.

The Artificial Intelligence, challenging the labor market, has been seen lately as both the exploitation and the destruction of the human being as known until now. The progressive replacement of human workforce with machines no longer concerns the traditional industries only, affecting intellectual and creative productions.

The side effects of this transition need to be studied in order to share benefits and tradeoffs equitably between technology and service developers on the one hand, and individuals and communities on the other.

Accessibility rights to services and goods, social inclusion, commoning and sharing economies, as well as informalities and self-organization permeate the incoming social organization associated with the digital transition, towards inclusive concepts of citizenship.

Social innovation practices, collaborative governance models, open innovation frontiers, human non-human entanglements concur in setting the route for the next generation settlements, notably: the built environment, the social system and the complexity and challenges of the everyday life.

These phenomena are even more significant for marginalized areas, which are compelled to face the risk of widening the socio-economic gap with advanced regions, as happens in some territories of Mediterranean bordering countries.

Green and digital transition are the two pillars on which European policies are based for the period 2021–27, above all through the instrument of the Next Generation EU. The substantial investments planned by the EU to support the green and digital transition in the coming years require multidimensional evaluation systems, capable of supporting decision-makers in selecting the interventions most effective in pursuing the objectives, also considering that the financial resources used for the Policy implementation are borrowed from future generations, who will be held accountable for our work.

For this edition, meanwhile, the more than 300 articles received allowed us to develop 6 macro-topics, about "*Communities, Institutions and Enterprises towards post-humanism epistemologies and AI challenges*" as follow:

1. Cultural Heritage as driver of development for territories and tourism destinations
2. Ecosystems, people-nature cohesion and urban-rural relationships
3. Decision support systems for urban regeneration
4. Policies and practices of cohesion and social innovation for inclusive cities
5. Green buildings and sustainable solutions for ecological transition

and a Special Section, *Supersession intercluster SITdA*, chaired by our colleague Consuelo Nava.

We are pleased that the International Symposium NMP, thanks to its interdisciplinary character, stimulated growing interests and approvals from the scientific community, at the national and international levels.

We would like to take this opportunity to thank all who have contributed to the success of the International Symposium "*NETWORKS, MARKETS & PEOPLE for transitioning settlement systems. Communities, Institutions and Enterprises towards post-humanism epistemologies and AI challenges—#NMP 2024*": authors, keynote speakers, session chairs, referees, the scientific committee and the scientific partners, participants, student volunteers and those ones that with different roles have contributed to the dissemination and the success of the Symposium; a special thank goes to the "Associazione ASTRI", particularly to Angela Viglianisi and Immacolata Lorè, together with Alessandro Rugolo, for technical and organisational support activities: without them the Symposium couldn't have place; and, obviously, we would like to thank the academic representatives of the University of Reggio Calabria too: the Rector Prof. Giuseppe Zimbalatti and the chief of PAU Department Prof. Tommaso Manfredi.

Thank you very much for your support.

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Contents

Mediterranean Diet, Food, Health, Lifestyles & Regional Regeneration

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Abstract. The Mediterranean Diet is based on traditional food composition and products that have been inextricably linked to its specific agricultural and coastal landscapes for centuries. Today we can see the tendency to abandon the traditional nutrition of the populations living in the regions bordering the Mediterranean. The prevalence of the Western population of low social class and developing countries prefers a "Western" diet, high in calories and high in fat, with a consequent increase in obesity and degenerative diseases to which is added an incorrect lifestyle. Populations are inclined to move from inland areas and mountains to coastal cities or relocate to other countries from the southern to northern parts of Europe. Lifestyles that promote sustainability and solidarity in territories and cities are linked to the Mediterranean diet, which is linked to a sustainable way of living together. The issue of lifestyle and nutrition is central to the definition of policies to combat poverty worldwide. Regarding Sicily, the southernmost large island of the European continent, it is necessary to develop regional training programs to implement primary prevention strategies for chronic non-communicable diseases with high prevalence through behavioral and nutritional education. This is a new initiative of the regional authority in Sicily. That can be a real opportunity for the regional regeneration as a new economic, social, environmental, and cultural policy of the regional authority.

Keywords: Regional Regeneration · Mediterranean Diet · Health Training Policies

1 Regional Planning and Primary Health Prevention

It is crucial to address the problem of chronic non-communicable diseases (NCDs) with a steadily increasing prevalence (total number of patients). NCDs are having global pandemic dimensions, so this is true not just at the regional level [1, 2]. Around 5 billion euros in annual health expenditures in Italy surpass 110 billion euros, with NCDs alone accounting for 80% of the disease load in the region of Sicily. The cause of this phenomenon is the increase in incidence and a decrease in mortality rates for these diseases, along with an improvement in the average lifespan of the general population [3]. All measures that reduce the risk of getting sick from these diseases must be developed as prevention strategies [4–7], and transdisciplinary approaches [8].

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Primary prevention strategies to counteract the causal factors of NCDs are based on necessary changes both in the way medicine is approached and in the operational areas towards which to direct the fields of action even before the treatment is acted. The approach was shared by some scholars who stated that primary prevention, i.e. systematic health programs aimed at lifestyle changes, must be met to be achieved. The first condition is to make a change of approach whereby medicine must be "predictive of dysfunctions and precursors of diseases at an early stage; preventive, for the early elimination of risk factors; personalized, based on the information available to each individual; participatory, also thanks to the enormous amount of means and technologies available today" [9, 4S]. The second condition is to keep in mind that there are several factors external to the human body that, for example, affect in a crucial way to induce cardiovascular diseases: sedentariness can be corrected thanks to a multimedia support to physical exercise or the physical and emotional stress that forces public administrations to work for the reduction of the impact of urbanization and the improvement of environmental conditions of work. These are lifestyle changes (low-calorie and low-fat animal diet, aerobic physical activity, abolition of smoking and minimization of alcohol consumption) to be included in real population strategies globally [10]. The 66th World Health Assembly's text is accompanied by an annex that shows a global action plan for the "Prevention and Control of Noncommunicable Diseases 2013–2020" [7]. In that plan is the "vision" with the "Goal: To reduce the preventable and avoidable burden of morbidity, mortality and disability due to noncommunicable diseases by means of multisectoral collaboration and cooperation at national, regional and global levels, so that populations reach the highest attainable standards of health and productivity at every age and those diseases are no longer a barrier to well-being or socioeconomic development". In that annex the "Overarching Principles" are as follow: Life-course approach; Empowerment of people and communities, Evidence-based strategies, Universal health coverage; Management of real, perceived or potential conflicts of interest; Human rights approach; Equity-based approach; National action and international cooperation and solidarity; Multisectoral action". And the objectives were of multiple dimensions of policy action. Preventing NCDs is the aim of this preventive strategy, which is based on policies. The primary focus of these policies is on communication diffusion to prevent diseases that necessitate expensive pharmacological therapies. Improving the living environment of human beings and raising public awareness is crucial. Considering the factors of facilitation and serious impediment is necessary when communicating health policies centered on lifestyle change [7, 22].

Multidisciplinary research has dealt with the topic highlighting that training and communication are indeed a possible way to change lifestyles even in the lagging regions of Sicily [11]. The traditional food composition and products connected to the agricultural and marine landscapes of the Mediterranean for centuries are the foundation of the (MD) [12].

The biodiversity of Mediterranean landscapes is unique due to their specific ecological, cultural, social, and economic characteristics as lived and perceived by the people [13, 14]. Strong and direct links between food and food-related elements (as part of the local heritage and local identities) have been created due to the symbolic value of food and its identification, differentiation, and valorization over time [15]. Local food

production and marketing can be characterized by food-landscape connections that are based on geographical indications of origin like observed with the multifunctional and territorialized agri-food systems [16–18]. From the scientific definition of the MD [19] to the synthesis of the MD food pyramid [20, 21] the MD is intrinsically linked to lifestyle of the people [22]. The link between the MD and lifestyles directly affects the qualitative conditions of the territory, in economic, social, environmental and cultural terms as recognized at the world heritage level [23].

Both the food pyramid and the MD are based on lifestyle, which also influences social and cultural aspects: *moderation, socialization, culinary activities, physical activity, adequate rest, seasonality, and traditional, local, eco-friendly and biodiverse products* [21, 2281].

In the countries where the MD was born [24] and in North Africa the Middle East [25] there is a strong change in lifestyles that causes: overweight, obesity and major non-communicable chronic diseases: cardiovascular, neurodegenerative, respiratory, diabetes and cancer. It is crucial to promote the MD and its specific lifestyle through education, communication, organic farming production, to combat social inequalities in health [26].

2 Methodology

One of the thematic sessions of the NMP 2024 conference (TS23: The complex and interconnecting relationships among Food, Bioeconomy, Natural Resources, Agriculture and Environment) allows to present critical reflections on research that have dealt with the possible interconnections between man, landscapes and food. This paper presents a reflection on the results of research into the effects of healthy eating on health to place this knowledge correctly in spatial planning, the ideal level of application of which is regional. The study, based on medical research experiences on food quality in the context of human-environment interaction [27], focuses on the theme of the Mediterranean diet. This specific disciplinary key allows the perfect common line of attention to ecosystem aspects revealing the strongly innovative contribution compared to spatial planning studies that have weaknesses and deficiencies, among which the interconnection between different knowledge [28].

3 Mediterranean Diet and Place-Based Policies

According to new studies [29] several contributions that aim to highlight the inextricable connection between food, landscape, and heritage [11, 30].

The CNEL (National Council for Economics and Labour) [31], has conducted multiple socio-economic analyses on the specificity of the Mediterranean territories in the past. More recent research has delved into the sustainability of local development policies in the Mediterranean basin [32]. The search for differentiated cultural matrices is the focus of various texts on Mediterranean cultures, starting from Albert Camus vs. colonialism [33] including those on 'meridian thought' [34]. According to territorial morphology, land use for residential purposes is still prevalent, leading to a trend towards an urban coastal concentration [35–37]. Due to overtourism [38], the coastal landscape was degraded [39]. For these and other reasons, it has been identified that

territorial erosion and desertification have taken place in geographical areas throughout the country, and particularly in mountainous regions [40]. Various policies have been developed to safeguard and improve the economic and identity defense of areas that are at risk of abandonment [40, 41].

Despite the limitations now known, the Keys research is still a source of great interest many years later. It is crucial that people incorporate changes in diet and lifestyle into their everyday lives: diet & δίαιτα [42]. According to some studies, conviviality, physical activity together, sharing, and healthy food consumption can have a positive impact on human health but more researches are needed [43]. Change of lifestyles can be driven by a natural inclination to enhance the quality of life, which is also enhanced by social and cultural values toward more sustainable kind of behavior [44–46]. Ad hoc policies and strategies for transition management [47] can connect food, landscape, and heritage topics with their cognitive dimensions [30]. Nature's tendency to improve vital condition is inherent, and it affects everyone, not just the elite or the richest [48].

The relationship between the MD, the healthy lifestyle and the socio-economic development of the territory, can be understood by observing the changes that have affected the habits of life and consumption in developed countries in recent decades [49].

On 17 November 2010, the fifth session of the UNESCO Intergovernmental Committee, which met in Nairobi, Kenya, placed the MD on the list of intangible cultural heritage of humanity. It was the goal of UNESCO to provide the MD with a precise territorial characterization, not just a personal habit. A simple daily practice can have positive effects on several objectives, which are typically the focus of public policy. With the MD both local and global aspects are impacted by economic, social, environmental, and cultural objectives [50]. This is not just healthy food but also a way of living that respects nature by strengthening its community culture.

People who do not have problems with poverty prefer to eat food from organic farming, from areas of environmental value - such as nature parks - and accompanied by food safety certifications [51, 52]. The development of Mediterranean food systems was earlier than that of the rest of the West. The result between the cultivation system and the benefits obtained in economic and nutritional terms has allowed the populations of the Mediterranean to maintain over time the traditions and production environments [22].

4 Lifestyle and Health

NCDs, such as diabetes, cardiovascular disease, cancer and chronic respiratory diseases, account for 41 million deaths each year and one in five deaths is attributed to unhealthy eating globally [53]. Improving the health of citizens requires addressing healthy and sustainable eating patterns [54].

The MD is a crucial element in this as it is recognized as a healthy nutrition model [55], which promotes environmental conservation [56]. In fact, its role in preventing NCDs [21] is the consumption of food of plant origin (cereals, fruits, vegetables, legumes, nuts, seeds and olives) with a moderate to high consumption of fish and seafood, a moderate consumption of eggs, poultry and dairy products (cheese, milk and yogurt) and a low consumption of red meat, with extra virgin olive oil used as the main source

of added fat. MD plays a crucial role in decreasing global mortality [57], cardiovascular disease incidence [58], and neoplasms [59]. MD has been suggested to be one of the factors that contribute to longevity [60]. Adherence to a healthy dietary model has been shown to be inversely associated with metabolic syndrome (Mets) [61], some of its components [62] and type 2 diabetes [63]. In the pathophysiology of obesity, diabetes, cardiovascular disease, and clotting factors, low-grade chronic inflammation plays an important role [64, 65]. NCDs can be prevented through the anti-inflammatory effect of the MD [66]. The total net greenhouse gas emissions of anthropic origin are affected by current feeding practices, which are between 21–37% [67]. Lower CO2 emissions can be achieved by adhering to the MD [68].

5 Findings

A regional technical table to promote the Mediterranean lifestyle (SViMed) was established by the Sicilian region in 2023. The aim is to promote the Mediterranean lifestyle through educational and information campaigns; activities to promote local food products with high health potential and the production of projects aimed at this purpose. The work of the working group is aimed at training in the field of education, the implementation of information campaigns aimed at citizens, including through social media, and the implementation of projects for active ageing in good health [69]. Healthy food experiments in Sicilian agriculture are considered by the regional table [70].

The instruments of development governance in Sicily, a lagging region, are being slowly changed in a holistic manner. Food is considered a driving force in sustainable development at both the individual and collective levels by the social demand for innovation in the transition. The proposal of a multidimensional integrated development model is the outcome of a several years focused on self-sustainable regional development. The model has four analytical/design areas that have their own dimensions: *healthy food* as an *individual dimension*, *landscape* as a *productive and relational dimension*, *heritage* as a *social/cultural dimension*, and *transition* as a *political dimension*. A global model of care for the Earth's common home, can be based on food, landscape, heritage, and transition.

6 Discussion

Patrick Geddes [71], just at the beginning of XX century, introduced the concept of organisms to cities, territories, and societies, which established the foundations for modern planning. The MD can be viewed to live in harmony with the environment, economy, social, and historical-cultural resources without relying on them. The objectives of regional spatial planning are perfectly aligned with this. According to what emerges from the debate on the reform of the laws of government of the regional territory (i.e.: law for regional government in Sicily, on August 2020) for a holistic approach to the new urban quality standards [72] and for food quality education [73] -also as care of the landscapes as well as its inhabitants- it therefore seems appropriate to investigate the possible relationship between medical science and the discipline of urban and territorial planning [73–76].

The need for an exchange of experience between town planning, agriculture and health does not only concern the scope of the necessary training but its strategic role for the future of the qualification of sustainable planning is waiting to become as central as it should be. We must also consider the certainly positive impact that concerns both the training of 'new' doctors and urban planners or rather new groups of experts able to scientifically deepen the contents of environmental sustainability policies with a holistic approach of integral ecology. As an expected result, the effects of policies centered on the enhancement of the MD will be "tangible" only in the long term, since it will take several years to change the incidence levels of the diseases mentioned above. Today we must pay due attention to the economic and organizational stability of the national and regional health system. The Mediterranean food culture has been characterized since ancient times together with the aggregative value of meals in the sense of relational capital. Since the extraordinary quality of food derives from the no less extraordinary overall quality of the territory, affirming the MD means keeping alive and reproducing, the quality of environment, landscape, history, culture and society.

Attributions. The contribution is the result of the collaboration of the two authors. In particular, the editorial staff of the parts 1, 2, 3 and part 5 are by Author 1 while part 4 is by Author 2.

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