



Article

# Preservation of the Mediterranean Identity: An Intra-City Analysis Towards a Macro-Regional Approach for the Characterisation of Urban Sustainability

Eleni Feleki <sup>1,\*</sup>, Charisios Achillas <sup>2</sup>, Christos Vlachokostas <sup>1</sup>, Alexandra V. Michailidou <sup>1</sup>, Leticia Ortega <sup>3</sup> and Nicolas Moussiopoulos <sup>1</sup>

- Laboratory of Heat Transfer and Environmental Engineering, Aristotle University Thessaloniki, P.O. Box 483, 54124 Thessaloniki, Greece; vlahoco@auth.gr (C.V.); amicha@meng.auth.gr (A.V.M.); moussio@eng.auth.gr (N.M.)
- Department of Logistics, TEI of Central Macedonia, 60100 Katerini, Greece; achillas@teicm.gr
- <sup>3</sup> Valencia Institute of Buildings, Calle Tres Forques 98, 46018 Valencia, Spain; lortega@five.es
- \* Correspondence: efeleki@meng.auth.gr; Tel.: +30-2310-994109

Received: 7 September 2018; Accepted: 30 September 2018; Published: 3 October 2018



Abstract: Globalisation combined with high urbanisation trends affects not only the traditional pillars of sustainability (environment, society, and economy), but also local identity. Customs and traditions are fading away and alienation is the result of new lifestyles deriving mainly from high interaction between locals and foreigners (focus on tourism). Facing the challenge of characterising urban sustainability, reflection on special characteristics of the urban fabric that are affected (spatial dimension of sustainability) is not always considered. Even though a lot of research is dedicated to the characterisation of urban areas' sustainability, the element of local, regional, and macro-regional identity seems not to be systematically incorporated. This work attempts to develop and test a methodological framework to identify and prioritise the common symbolic elements that constitute the identity of a group of cities and that need to be sustained. The study focuses on the Euro-Mediterranean region. A survey is addressed to 64 scientists from five cities: Dubrovnik, Genoa, Rhodes, Valencia, and Venice. "Urban structure" is revealed as the most important element that constitutes the "Mediterranean identity". Moreover, the level of threat deriving from mass tourism on the "Mediterranean identity" is estimated. The survey provides insight into the definition of the spatial dimension of sustainability and the determination/weighting of the case-specific component of an integrated urban sustainability assessment tool.

Keywords: core set of indicators; index; urban sustainability; globalisation; spatial dimension

#### 1. Introduction

Globalisation, defined as the increasing interaction of people through the growth of the international flow of capital, ideas, and culture, produces special impacts and deserves special attention [1]. In 2000, the International Monetary Fund identified four basic aspects of globalisation: trade and transactions, capital and investment movements, migration and movement of people, and the dissemination of knowledge. On the other hand, the academic literature commonly subdivides globalisation into three major areas: economic, environmental, and socio-political, mirroring the three pillars of sustainability [1–3]. Taking into consideration the predictions that 64.1% and 85.9% of the developing and developed world, respectively, will be urbanised by 2050 [4], in relation to the rapid growth in international trade, globalisation and tourism led to the creation of large ethnic

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subcultures, producing effects at the level of the urban macro-environment and affecting further structural changes [5].

Firstly, demographic changes and related trends are apparent through tourist movements according to the criteria of direction, intensity, and frequency of visits to a destination throughout the year, hence the need for innovative tourist products by the criteria of programme, i.e., services and prices. Since mass market is individualised, all service providers offer specific and acceptable programmes for market groups. Within these groups, i.e., sub-segments of market niches, consumers show similar preferences and a tendency for specific and homogeneous behaviour while requiring a certain level of product quality.

Moreover, to track changes in the natural environment, monitoring development indicators can be considered, in relation also to the professional activity of an area. For instance, the mass concentration of tourists in certain areas in time-determined, short periods throughout the year results in the excessive use of space, thereby challenging its development continuity. The concept of sustainable development becomes an integral part of strategic planning. Marketing activities in a destination incorporate specific spatial features as they are a prerequisite to the competitiveness of a destination and they foster efficient placement. Along with the continuity of sustainable development, the issues that should be taken into account are the rational use of resources, their optimal combining, harmonisation of space according to the appeal and acceptability of ambiance, active implementation of land management policies, and environmental preservation.

Additionally, cultural changes leave a trace at the level of confronting global cultural identity and specific interest of potential consumers. In the tourist market, there is a visible shift in preferences from standard products based on genuine natural elements in the destination (sea, sand, and sun) to specific tourist products, with additional efforts invested in activities that are concentrated around anthropogenic factors in the destination. Cultural globalisation resulted in a strong acceleration of cultural diffusion and exchange. This acceleration, to a great extent, is driven by the expansion and liberalisation of market forces, often dominated by northern countries [6,7]. Also, political changes and disasters caused by human factors result in uncertainty, which makes a destination less appealing to potential tourists. Studies show that safety represents one of the key factors based on which tourists choose a destination.

In general, global flows of goods, ideas, people, and capital are considered as a threat to urban sustainability in several ways [8]. They can lead to the abandonment of traditional values and practices, and to the dismantling of the economic basis on which the survival of indigenous cultures depends on, while also producing an impact on the identity at local, regional, and macro-regional scale [9–11]. Especially in the case of the Mediterranean Basin, the impact of globalisation due to the massive flows of people is significant [12–15], with urban areas facing great challenges. The fact that the Mediterranean is undoubtedly one of the leading tourist regions in the world [16-19] introduces another great challenge. Despite the availability of a large number of urban sustainability characterisation tools [20-45], the effects on the identity of the area and on urban sustainability holistically are difficult to be assessed [46]. Based on a recent review, it seems that there is no framework assessing the impacts on the identity of the Mediterranean macro-region, while, in respect to urban sustainability assessment, the only framework that deals with the Mediterranean area is Ecological Footprint [42], which assesses only the environmental pillar and not sustainability as a whole. Towards this direction of framing an assessment tool applicable to cities with common characteristics, the CAT-MED project [32] delivered a set of indicators to be monitored by Mediterranean cities. This set is also supported by thresholds and a full calculation methodology. The rationale behind this initiative is that a coastal Mediterranean city (e.g., compact, dense, presenting complexity of uses with specific climatological characteristics and socio-cultural background) can barely produce comparable sustainability assessment results to northern European cities, even if the same sustainability index or system of indicators is used, leaving emblematic cities in the area encountering uncontrolled problems. Also, Leontidou [47] highlighted similarities in the individual trajectories of urban growth, leading to

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convergent socio-spatial profiles and homogeneous economic structures [47,48]. Although insights into the elements that are common in Mediterranean cities are discussed in literature, their systematic identification, based on a bottom-up analysis aiming to seek the special characteristics that form the identity of the area backed by a methodology towards the preservation of the identity of these areas and their sustainable promotion and enhancement of urban sustainability, seems to be missing, at least to the authors' knowledge [20–45].

This is to say that the extent to which globalisation due to the massive flows of visitors is affecting the identity of Mediterranean cities, their sustainability, and their identity is not yet explored.

The "Mediterranean identity" is a powerful concept that derives from environmental characteristics, cultural features, and, above all, from the spatial interactions between the two. The Mediterranean Basin is characterised by common symbolic elements, such as the sea, the climate, the landscape, the way of life, and much more. Euro-Mediterranean cities are historically characterised by high density and compactness. They experienced the phenomenon of urban sprawl directly linked to high population growth, trends in movement, and the spread of the automobile as the main mode of transportation. In parallel, a more general phenomenon of urbanisation seems to have been the driving force behind urban sprawl, related both to the Athens Charter in 1931 [49] and the adoption of foreign urban development models, together with the influence of the North American cultural values. Today, several observations intend to retard this sprawl, mainly due to its negative impacts on agriculture and use of natural resources, as well as the considerable economic and environmental costs in transport and infrastructure [50]. Despite the efforts already made to give greater importance to public transportation, the car remains predominant [51]. The connection between historic centres, which are, in many cases, subjected to ambitious rehabilitation and renovation of public spaces (pedestrian areas, tram lines, etc.), with the neighbourhoods in the suburbs or even the peripheral to the metropolitan area, is one of the major challenges that the Euro-Mediterranean cities are facing [52–54]. Considering investments, if one looks at the latest ESPON report [55] on a European level, as well as several reports on the economies of countries in the Mediterranean Basin, they are characterised by relative poverty and high unemployment rates compared to other European regions. In a context of urbanisation, in recent years, Mediterranean cities experienced processes of profound economic and industrial restructuring. All Mediterranean cities seem to experience similar difficulties in answering strong socio-economic priorities; hence, the need for a comprehensive approach to climate issues and sustainable development is present. Furthermore, populations and activities depend on the fiscal resources of Mediterranean cities, and therefore, on part of the investment capacity. Moreover, the economic and fiscal crises that heavily hit Greece, Spain, and Portugal over the last decade, as well as the fluctuating and confusing austerity policies which are implemented in all European countries bordering the Mediterranean, amputated local authorities' flexibility on investments.

To find the necessary resources for investments, Euro-Mediterranean cities face common challenges: devising solutions to make the city financially sustainable, finding new sources of funding and low-cost technical solutions, relying on European Union (EU) funds and implementing new financial mechanisms that will assist them to work towards urban sustainability, and using the tools of territorial and social cohesion that they already have. As a common strategy, international firms gradually displace the traditional local businesses, which poses significant consequences on unemployment. Moreover, the local economy seems to concentrate activities mainly in gastronomy, tourism [56], and textile franchises. This trend results in people leaving the city centres to the tourists and the international firms, driving towards the loss of complexity of uses and functions. The outcome of the above is areas to be transformed into "theme parks" designed for tourists, where residential use is drastically reduced, together with small and traditional business. Thus, areas, mainly neighbourhoods and historical centres which were an example of the classical Mediterranean city model, are being transformed into mono-functional cities [57]. The concentration and coexistence of multiple uses in small areas and the pressure exerted on this coastline is another important issue in terms of territorial, environmental, and socio-economic management. Indeed, the question that seems to trouble local and

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regional authorities is how to preserve a high quality of life for residents and, at the same time, maintain tourism as an important economic performance, by limiting the adverse impact of uncontrolled tourism masses on urban sustainability. These challenges inevitably put pressure on the metropolis of the area.

Consequently, Mediterranean (Med) cities are facing a loss of cohesion in its broadest sense. In the background, the different facets of diversity that are at stake are social diversity, cultural diversity, and age diversity. It is rather complex to simultaneously ensure peaceful relations within Mediterranean cities, to renovate and transform cities while maintaining buildings and housing accessible to low-income populations while avoiding speculation, and to avoid relegation spaces and increasing inequality. In the context of an economic and social crisis, which tends to exacerbate tensions, the issue of "living together" is more than pertinent.

This paper was initiated by the need to face the common challenges that emerge and affect the cities of the Mediterranean Basin, by making benefit of the intimate relationship between spatial configurations and specific background conditions, including planning, economic performance, and social issues. Such approaches may benefit from a comparative analysis of long-term urban trajectories, considering together the effects of sequential phases of urbanisation, sub-urbanisation, and re-urbanisation on identity and sustainability as a whole. In this regard, new approaches identifying morphological and/or functional specificities in urban development paths from local-scale and/or regional-scale analysis were identified as particularly welcome [58].

Specifically, the focus of the study is on the northern shores of the Basin, namely the European urban areas (Figure 1) with the main aim of this work to preserve the identity of the macro-region. The aims of the present study were (i) to identify the common symbolic characteristics that constitute the identity of the area under study, (ii) highlight their importance, and (iii) to estimate the level under which they are under threat, through a survey addressed in five cities that are considered to be highly representative of the Euro-Mediterranean area. The survey is accomplished in the framework of the European project "Alter Eco" [59], funded by the Interreg Med territorial cooperation programme. The project provides the opportunity of testing, in representative Med cities, used as living labs, existing methodologies and tools in the field of sustainable tourism, with the aim of reaching holistic and realistic tourist strategies at the local and regional levels, which allow transferability in the Med territory. Section 2 introduces a validated methodological framework for the identification and hierarchisation of the most important "Mediterranean identity" characteristics in urban areas, and for the estimation of the level under which these characteristics are considered to be under threat due to massive flows of visitors. Section 3 presents the results of a survey addressed to 64 members of the Mediterranean community, representing five cities: Dubrovnik (Croatia), Genoa (Italy), Rhodes (Greece), Valencia (Spain), and Venice (Italy). It should be highlighted that the abovementioned areas were selected as representative urban areas of the wider area under study as they share a number of common characteristics which are further discussed in the material to follow (e.g., high density, compactness, rich cultural and natural heritage, etc.). In this light, the results presented herein can be extrapolated to other areas in the area under study (Figure 1). A statistical analysis was implemented to reach a consensus and to provide the possibility of generalising the findings, and an intra-city comparison was also attempted. Section 4 provides insights into the definition of the spatial dimension of sustainability and for the future determination/weighting of the case-specific component of an integrated urban sustainability assessment tool, building upon tools that, up to now, consider only the traditional pillars of sustainability (environment, economy, and society).

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**Figure 1.** Area under study, approached through a survey addressing five representative Euro-Mediterranean cities.

#### 2. Materials and Methods

The conceptual approach for the identification and hierarchisation of the characteristics of the "Mediterranean identity" follows the flow that is illustrated in Figure 2. Following an in-depth analysis of the area under consideration, the challenges faced and the common elements of the area were identified. As a next step, the thematic categories were decoupled and the specific characteristics of the area were discussed and identified during a first-round consultation phase by local authorities representing five cities. Moreover, the characteristics were subjected to assessment (results are available in Supplementary Material S1) with the use of a validated tool (MEDASET, provided as Supplementary Material S2) by a panel of experts that represent the same cities. A consensus was reached, and lists that present the hierarchisation of the Mediterranean characteristics in terms of importance and level of threat were generated. A detailed analysis of Phases I-V (Figure 2) is presented in the analysis to follow. Although the framework is presented herein for the definition of the Mediterranean identity and the level of threat due to massive flows of visitors, the same process can be followed for any other area with common elements across the world, or any other pressure apart from tourism. The methodology developed herein and used by five Euro-Mediterranean cities practically remains unchanged, with thematic areas and characteristics as those that vary heavily based on the specific area under study.

# 2.1. Review (Phase I)

As a first step (Phase I), an initial literature assessment of peer-reviewed journals, books, and European initiatives and projects is required. In order to set the limits of the study, a two-step Boolean search was implemented. The first Boolean search step was restricted to publications registered in Scopus and to EU initiatives and projects available over the web. The second Boolean search step restricted the study to relevant fields of research, i.e., "Mediterranean area/identity/urban sustainability assessment indices/systems of indicators/tools". In total, 25 studies led to a deep understanding of the urban sustainability assessment indices and systems of indicators at local, national, and European levels, and their applicability in the Euro-Mediterranean area [20–45].

Additional inclusion/exclusion criteria were set in order to finalise the limits of the study: (i) the language of the publications (English), (ii) both theoretical approaches and practical implementations were taken into consideration, and (iii) the year of the publication was not considered as an exclusion criterion.

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The survey results in a deep understanding of the challenges and the common thematic elements in the area under study. Phase I gives insights into a first-level agreement on the major thematic categories that reflect the Mediterranean identity.

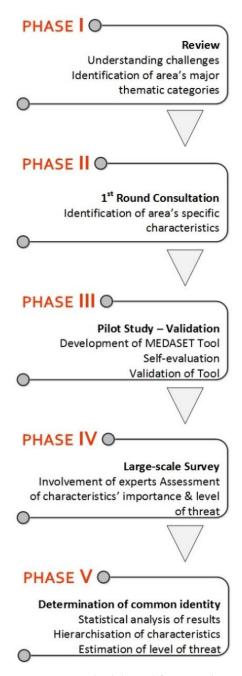


Figure 2. Methodological framework.

## 2.2. First-Round Consultation (Phase II)

The common elements that were revealed during Phase I were discussed during the first panel consultation (Phase II). The aim of the latter was to identify the major thematic categories and to specify the common characteristics of the area under study, in order to provide a manageable list that could be regarded as the traditional building block or backbone towards the understanding of the "Mediterranean identity". This round of consultations was accomplished among representatives of public authorities of the area under study constituted by five cities (so-called panellists), partners in the

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European territorial cooperation project "Alter Eco" [59]. A total of sixty-eight dominant characteristics, grouped into seven categories, were identified as a result of Phase II.

## 2.3. Pilot Study—Validation (Phase III)

A tool was developed in the form of a questionnaire (MEDASET) and was validated by the panellists, who assessed the thematic categories and the characteristics against their importance and the level under which they were subjected to threat. Taking into account the feedback from the validation phase, a second version of MEDASET was produced so as to be used during the large-scale survey within Phase IV.

# 2.4. Large-Scale Survey (Phase IV)

Phase IV involved the preparation of the survey (realised within Phase V) with the use of MEDASET to allow iteration among experts and to reach a consensus. Two well-accepted methods available for reaching expert consensus were examined: the nominal group technique (NGT) and the Delphi method. The NGT faces several limitations, including the requirement of the participants to follow a personal meeting that may prove difficult to arrange in the case of high-level experts, such as those participating in the present work. The advantages of the Delphi method include anonymity and the capability for achieving consensus when uncertainty may exist due to the inevitable lack of complete and definitive evidence. A Delphi-based approach was followed in the present study to reach expert consensus. In this methodological context, the structured process was continued with data collection. The inevitable risk of failing to execute the method was minimised through (i) the active involvement of the "Alter Eco" project [59] partners to engage experts from different disciplines, (ii) the solid definition of the criteria of the experts' panel, namely knowledge and practical engagement with the issue under investigation, capacity and willingness to contribute, assurance that sufficient time will be dedicated to this exercise, good communication skills, and high-standard experts' skills and knowledge. Purposive sampling was used by the panellists in order to ensure that the experts met pre-defined definitions of expertise and that the five participating areas were represented in a balanced way. In this context, 64 highly informed local experts, specifically, 26 men and 38 women, were interviewed in the framework of the present study. Experts represented a wide variety of disciplines (architects, urbanists, economists, tourism managers, environmental and civil engineers, journalists, and geographers), while different age classes were also tackled.

As a next step, the MEDASET questionnaire was addressed to the participants that rated the importance and the level of threat of each specific characteristic and the thematic category as a whole, on a five-point Likert scale (with 1 representing very low importance and 5 representing very high importance). Kendall's coefficient of concordance (Kendall's W) was calculated to determine the inter-judge reliability and highlight the achievement of a strong level of consensus:

$$W = \frac{12S}{m^2(n^2 - n)},$$

$$S = \sum_{i=1}^{n} \left( Ri - \overline{R} \right)^{2},$$

where S is the sum of squared deviations, Ri is the total rank of the factor, m is the number of rank sets or judges, and n is the number of ranked factors or phenomena.

#### 2.5. Determination of Common Identity in Areas with Common Characteristics (Phase V)

The statistical analysis that follows depicts the thematic categories and the specific characteristics that, based on the experts' responses, were assessed regarding (i) their importance, and (ii) their level of threat. Based on the findings of the statistical analysis, policy-makers hold a powerful decision-making tool to better design strategies that will further preserve and sustainably promote the area's identity and, at the same time, decrease the level of threat due to local pressures.

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#### 3. Results

Based on the abovementioned methodology, a survey was conducted with the aim of identifying and hierarchising the most important elements that characterise the area under study, while also assessing their level of threat due to mass tourism. In the following paragraphs, the main challenges of the study are briefly presented and the common characteristics between the studied areas are discussed. As a first step of the methodology, a pool of common characteristics shared among the examined areas were identified. Then, a public consultation was conducted, so as to determine the ones that better describe the "Mediterranean identity". Subsequently, a large-scale survey was conducted with the active involvement of experts in order to assess the specific characteristics' importance and their level of threat due to tourism. As a final step, the experts' responses were analysed, characteristics were hierarchised, and the level of threat was estimated. The application of the five phases discussed in Figure 2 is analytically discussed in the material to follow.

#### 3.1. Phase I: Review

The literature review revealed several structural elements of the Mediterranean identity. Decoupling the different definitions and perceptions presented above, the basic symbolic characteristics of the Mediterranean area that emerged are described in Table 1.

| <b>Common Elements</b>   | Description   | References |  |
|--|---|------------|--|
| Landscape, climate,<br>vegetation, and crops                     | Common graphical and topographical features, climatic conditions, coastal environment, high biodiversity, and specific plants that dominate the regional environment and landscape (e.g., olive trees, vineyards, oaks, pines). | [60–62]    |  |
| Gastronomy, commerce, and professional activity                  |   |            |  |
| Structural and architectural characteristics of the urban fabric | Fashioned lifestyles, complexity of urban fabrics, dense/compact urban structure, small size of cities (compared to sprawling, mono-functional cities), squares, and neighbourhood spaces.                                      | [70–75]    |  |
| Civilisation and patterns of social behaviour                    | Notable history, cultural heritage, historical sites and districts inside cities, Christian urban forms, open central squares, places of social exchange and placing of events, large town halls, and prominent churches.       | [12]       |  |

**Table 1.** Common elements of the area under study.

#### 3.2. Phase II: First Round Consultation

Following Phase I of the methodological framework described in Section 2, the challenges, as well as the common elements, that represent the area under study were subjected to consultation. A first panel consultation by the Alter Eco project's scientific committee (Phase II) led to the decoupling of the areas' thematic categories and specific characteristics, summarised in Table 2. This definition of the characteristics of the Mediterranean identity should be considered as the first step before (i) the quantification and determination of their importance, and (ii) the estimation of the level of threat of being extinct in the modern world, elaborated in Phases III–V.

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**Table 2.** Initial screening of thematic categories and characteristics that determine the Mediterranean identity.

|     | Thematic Categories                | Specific Characteristics (Codification)  |
|-----|------------------------------------|--|
| I   | Landscape surrounding the city     | Olive groves (I1), vineyards (I2), nearby mountains (I3), aromatic scrubland (I4), bare rock (I5), nearby islands or beaches (I6), cork oak forest (I7), pine forest (I8), palm trees (I9), umbrella pines (I10), citrus trees (I11), cliffs and bare rock (I12).  |
| П   | Urban structure                    | Big central squares (II1), small residential squares (II2), narrow streets (II3), grand central fountains (II4), small local fountains (II5), cathedrals or grand mosques (II6), historic palaces (II7), fortresses (II8), port area (II9), sea-front promenade (II10), urban density (II11), proximity to basic services (II12), buildings compactness (II13), complexity of uses/functions (II14), mobility (II15).            |
| III | Urban architecture                 | Distinctive colour(s) (III1), distinctive shape/style of houses (III2), decoration of houses (III3), shape/materials of roofs (III4), doors/windows/shutters (III5), balconies (III6), courtyards behind or inside the houses (III7), gardens attached to the houses (III8).   |
| IV  | Commerce and professional activity | Small shops in town centre (IV1), small shops in residential areas (IV2), local cafés (IV3), local restaurants (IV4), central cafés at town squares (IV5), professional services in the town centre (IV6), busy commerce (IV7), regular fish and/or vegetable markets (IV8), temporary open district markets (IV9).  |
| V   | Food that is served                | Local specialties at restaurants (V1), local specialties at bakeries/delis (V2), street food (V3), fish bought daily from ports/beaches (V4), vegetables/meat bought daily from market stalls (V5), local specialties in grocery stores (V6), bowls/dishes where food is served (V7).  |
| VI  | Festivals and Events               | Religious processions (VI1), traditional parades (VI2), food events in the streets (VI3), communal meals (VI4), competitions between neighbourhoods (VI5).   |
| VII | Patterns of social behaviour       | Distinctive everyday dress (VII1), distinctive dress on special occasions (VII2), use of local language or dialect (VII3), signage in local language (VII4), social exchange at café terraces (VII5), Mediterranean schedule (VII6), evening "passeggiata" (VII7), late-evening social activity (VII8), close family relations (VII9), open social events (VII10), social life and lifestyle (VII11), religious beliefs (VII12). |

# 3.3. Phase III: Pilot Study—Validation

As a next step, a questionnaire, namely the MEDASET tool, was developed in order to accommodate the needs of the survey. The tool aimed to study which elements define the Mediterranean identity, as well as to highlight which ones could be at risk (due to tourist activities). The tool was validated for its use by the "Alter Eco" project's [59] experts, before being given to experts during the large-scale survey within Phase IV.

## 3.4. Phase IV: Large-Scale Survey

Within Phase IV, a total of 64 experts responded to the survey and answered the validated MEDASET. The experts represented, in a balanced way, the five cities (Table 3). Gender balance (55% female; 45% male) and disparity of experts' disciplines were also met. In this context, the (panellists) experts assessed the importance and the level of threat for each specific characteristic and thematic category. Kendall's coefficient of concordance (W) was calculated in both cases, and a strong consensus (W > 0.7) was met.

| <b>Table 3.</b> Number of experts involved in Phase IV of the students |          |          |  |  |
|--|----------|----------|--|--|
|  | <u> </u> | N. 1. CF |  |  |

| City      | Number of Experts |  |  |
|-----------|-------------------|--|--|
| Dubrovnik | 11                |  |  |
| Genoa     | 13                |  |  |
| Rhodes    | 10                |  |  |
| Valencia  | 14                |  |  |
| Venice    | 16                |  |  |

#### 3.5. Phase V: Common Identity

The mean importance and level of threat for each thematic category is presented in Table 4, depicting that all thematic categories present a high to very high importance (>4.00). Nonetheless, all thematic categories were estimated to present a moderate level of threat.

**Table 4.** Importance and level of threat for all thematic categories.

| Thematic Category                       | Importance * | Level of Threat * |
|---|--------------|-------------------|
| Landscape (I)                           | 4.05         | 3.54              |
| Urban structure (II)                    | 4.46         | 3.97              |
| Urban architecture (III)                | 3.99         | 3.62              |
| Commerce and professional activity (IV) | 4.00         | 3.58              |
| Food that is served (V)                 | 4.13         | 3.49              |
| Festivals and events (VI)               | 4.23         | 3.13              |
| Patterns of social behaviour (VII)      | 4.05         | 3.30              |

<sup>\*</sup> A 1–5 Likert scale was used to assess the importance and the level of threat.

The analysis highlighted the great importance of the "urban structure" as a key element that defines the "Mediterranean identity" (4.46), simultaneously estimated to be under the highest level of threat (3.97) among the thematic categories that were assessed. This can be observed, for example, in the Liguria and the Veneto regions, where very similar urban forms may be observed. The latter share a clear common denominator that originates from Medieval, Renaissance, Baroque, or Modern urban development, namely the mix of economic and social activities in a very limited area where the pedestrian scale is of primary importance for the vast majority of transportations. Such features distinguish it from other urban models in the north or outside Europe that are less efficient in the use of natural resources and are not strictly based on the connectivity of human relationships. The concepts of the compactness, the complexity, and the basic services' proximity related to urban settings and, in a more generic sense, to the city model, are key references for the Euro-Mediterranean cities, with buildings grouped together closely, creating a dense environment and sufficient population critical mass. In this light, the urban environment is characterised by a high level of different activities taking place, and therefore, a transfer of information and relationships. Complexity goes hand in hand with compactness, representing the diversity of human activities that are located in different parts of the city. The relationship between the urban model—dense, compact, and complex in activities and uses, easy to reach—and energy consumption is very different from that observed in sprawling cities. In other words, the city configuration—the city canvas—is not viewed purely from a territorial standpoint, but using a holistic approach, since it has a direct influence on both the mobility and the management of natural resources, energy efficiency, and essential aspects of social cohesion and economic development, all contributing to urban sustainability.

"Festivals and events" was the second most important thematic category (4.23), although corresponding to the lowest level of threat (3.13). The third most important thematic category was "food that is served" (4.13), estimated to be under a moderate level of threat (3.49). The thematic areas of "patterns of social behaviour" and "landscape" were estimated to have equal importance (4.05), with the latter representing a moderate level of threat (3.54). The thematic categories of "professional

activity" and "urban architecture" reflected similar importance (approximately 4.00), with the latter representing the second highest level of threat among the thematic areas (3.62). Figure 3 illustrates the mean importance and level of threat of each specific characteristic, resulting directly from the answers of the 64 experts that were involved in the large-scale survey. The figures depicted in the graph were calculated from the total sample, namely all 64 experts from all five participating cities. All specific characteristics were estimated to present a level of importance between "low" (2.00) and "high" importance (4.50 being the highest score). The mean level of importance of most specific characteristics deviated from the mean level of threat.

Specifically, the characteristics that were revealed to be the most important were "historic palaces", "port area", "narrow streets", "local specialties in restaurants", "cafés in the main town squares", "open social events", "sea-front promenade", "social life and lifestyle", "big central squares", and "fish that is bought daily from port/beaches". Accordingly, the specific characteristics that face the highest level of threat are "fish that is bought daily from port/beaches", "small local shops in the town centre", "mobility", "vegetables/meat that bought daily from market stalls", "small local shops in residential areas", "local specialties in grocery stores", "decoration of houses", and "complexity of uses and functions".

The assessment of the thematic categories per participating area is presented in Figure 4. The blue line indicates the mean importance of the thematic categories, while the red one highlights their mean level of threat, for each area under study. The light-blue and orange dotted lines outline the overall mean importance and level of threat of all the areas under study and highlight the deviations of the experts' views in the area under study, in relation to all the experts' perceptions.

More specifically, Figure 4a refers to the city of Dubrovnik, where "urban structure" was revealed as the most important characteristic (4.71), followed by "urban architecture" (4.25). "Festivals and events" and "social behaviour" were both assessed with a high score (4.00), whereas "characteristics of the landscape" received a moderate-to-high evaluation (3.63). "Professional activity" and "food that is served" presented the lowest importance (3.25 and 3.13, respectively). Nonetheless, the latter received the highest evaluation in terms of level of threat (3.88), followed by the "characteristics of the landscape" (3.57) and the "urban structure" (3.29), followed closely by "urban architecture" (3.25). Indeed, Dubrovnik possesses a unique structure and urban architecture. From the mountain, it is possible to see parallel streets transform into stairs to access the terraces of the city, while, towards the sea, the grid becomes less regular and opens up as it widens. The transversal artery, which runs parallel to the sea, becomes narrower from east to west (the direction in which the city developed). Stone and brick work together to form a dense architectural fabric. The works of sculptures are also in great harmony with the urban landscape. The high importance and high level of threat attached to the characteristics of structure, architecture, and landscape, are fully justified, as they are conceived as significant driving forces of tourism masses, which, if not properly managed, can lead to great sustainability impacts.

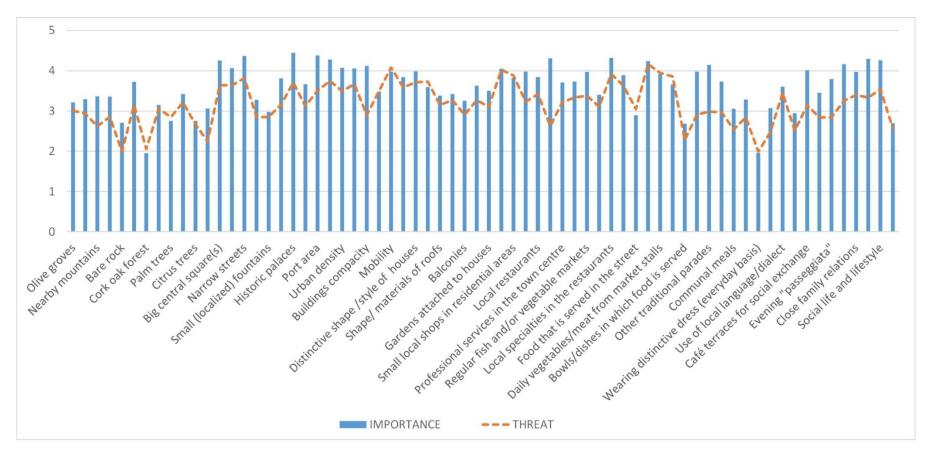


Figure 3. Importance and level of threat for all specific characteristics (for all areas).

Figure 4b depicts that the most important characteristic for Genoa corresponded to the category of "characteristics of the landscape" (4.69), followed by "urban structure" (4.31), "urban architecture" (4.23), and "food that is served" (4.15). "Commerce and professional activity" was estimated to present a moderate-to-high importance (3.85), whereas "festivals and events" and "patterns of social behaviour" were both scored moderately (3.38). "Characteristics of the landscape" presented a high level of threat (4.08), followed by "commerce and professional activity" (3.54) and "urban structure" (3.46). As Genoa is one of the most important port-cities in the Mediterranean, retaining a historic centre where street plan and plot layout are still intact, the results revealed from the survey are totally justified. Additionally, the exceptional sequence of axial roads, whose construction began with the building of Strada Nuova and the 42 buildings, selected for inscription in the World Heritage List, present a significant cross-section from the point of view of architecture and urban design that attract important tourism masses.

The similarities of the island of Rhodes to the city of Dubrovnik are also reflected through the assessment results. As in the case of Dubrovnik, Figure 4c depicts a very high importance for the specific characteristics of "urban structure", "urban architecture" and "festivals and events" (5.00), followed by "patterns of social behaviour" (4.50). Additionally, the categories of "characteristics of the landscape" and "commerce and professional activity" presented a high importance (4.00). "Urban structure" was evaluated to present the highest level of threat (4.50), followed by "urban architecture" (4.00).

Figure 4d outlines a high importance attached to the "commerce and professional activity" (4.33) category in Valencia, followed by "patterns of social behaviour" and "festivals and events" (4.00). "Food that is served" and "characteristics of the landscape" were closely evaluated (3.88 and 3.89, respectively), closely followed by "urban structure" (3.78). "Urban architecture" was evaluated with a low importance (2.20). The deviation of the hierarchy of the specific characteristics for the city of Valencia in relation to Dubrovnik, Genoa, and Rhodes is obvious. The reason for this deviation lays on the different characteristics of the city, in terms of the lack of a historic closed centre and great mixture with modern architecture. Valencia has mild winters, few rains, and long summers, thereby enhancing social life of the neighbours in the streets. This involved a very active commerce and professional activity and a great number of festivals and events wound into the culture of the city. However, the thematic categories in terms of level of threat were hierarchised as follows: "urban structure" (4.42), "festivals and events" (4.03), "urban architecture" (3.96), "commerce and professional activity" (3.94), "food that is served" (3.92), "patterns of social behaviour" (3.87), and "characteristics of the landscape" (3.85). This hierarchy shows that the urban structure and the urban architecture form an integral part of the city, but they were left in lower positions regarding the level of importance due to the limelight of the other characteristics.

During the Middle Ages, Venice was the greatest seaport in Europe and the continent's commercial and cultural link with Asia. The city is unique environmentally, architecturally, and historically. Indeed, Figure 4e highlights a high importance attached to the "commerce and professional activity" (4.59) category, followed by "urban structure" (4.50) and "food that is served" (4.47). "Urban architecture" (4.29), "patterns of social behaviour" (4.24), "festivals and events" (4.12), and "characteristics of the landscape" (4.06) also presented a high importance. Underpopulated and over-touristic Venice is facing threats from all sides. As residents leave and visitor numbers soar, the city's quality of life is being eroded. Regarding the level of threat, the category that was evaluated with the highest score was "commerce and professional activity" (4.29), which is totally justified, since restaurants, bed and breakfasts (B&Bs), cafés, and souvenir shops monopolise the city centre. The categories of "characteristics of the landscape" (3.69), "urban architecture" (3.56), and "patterns of social behaviour" (3.56) followed, as a consequence of vast tourism masses that reach the city every year.

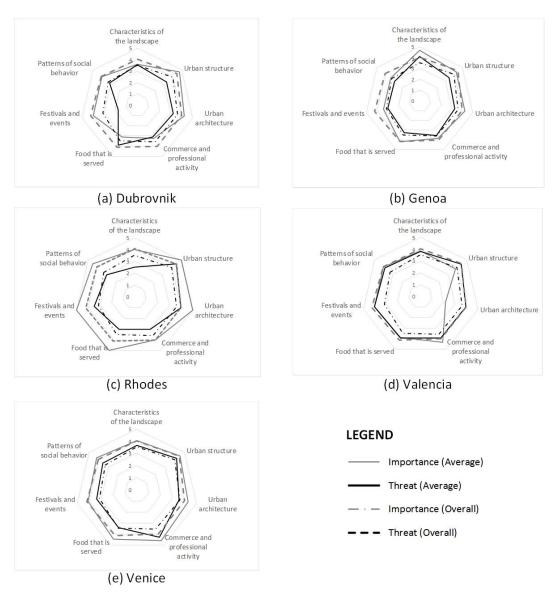


Figure 4. Importance and level of threat for thematic categories (per area).

## 4. Discussion

The impact of globalisation, especially due to the massive flows of people, is significant [12–15], especially in the case of the Mediterranean Basin, with urban areas facing great challenges. Local customs and traditions are fading away and alienation is a result of the new lifestyle. Moreover, emblematic cities in the area encounter major problems. Venice's status, for example, as a world heritage site is slowly sinking, with the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) threatening to slap the city on its in-danger list, a fate normally reserved for war-ravaged ruins and under-funded third-world sites. In 2016, UNESCO sounded the alarm bells by warning that Dubrovnik's world heritage status was at risk, highlighting concerns about "the maximum number of tourists in regard to the sustainable carrying capacity of the city" and the "management of cruise ships" [48]. In 2016, the United Nations World Tourism Organisation stated that Spain was the most-visited country in the world, with some 75.3 million visitors. Despite the perceived positive economic impact of the tourism industry in Spain, the country recently saw a wave of anti-tourist sentiment in some of the most popular destinations. Residents claim that the growing number of people visiting their cities is affecting their quality of life, driving up prices and crowding them out of their neighbourhoods.

The survey revealed several structural elements of the Mediterranean identity, and the basic symbolic characteristics of the Mediterranean area emerged. The prominent natural characteristics of the cities in the Mediterranean involve particularly fashioned lifestyles, as well as certain urban shapes. More specifically, the area is highly characterised by its complexity of urban fabrics and its compact urban structure. The typical Mediterranean city created a blend of compactness and complexity from the medieval period, facilitating certain activities, communication, and the exchange of goods and services among pedestrians. For example, this can be seen in the Emilia Romagna and the Veneto regions, where very similar urban forms may be observed. The latter shares a clear common denominator that originates from Medieval, Renaissance, Baroque, or Modern urban development, namely the mix of economic and social activities in a very limited area where the pedestrian scale is of primary importance for the vast majority of transportations. Such features distinguish it from other urban models in the north or outside Europe, which are less efficient in the use of natural resources and are not strictly based on the connectivity of human relationships.

The concepts of the compactness, the complexity, and the basic services' proximity related to urban settings and, in a more generic sense, to the city model, are key references for the Mediterranean cities. The compactness of a city means that the buildings are grouped together closely, creating a dense environment and sufficient population critical mass. In this light, the urban environment is characterised by a high level of different activities taking place, and therefore, a transfer of information and relationships. Complexity goes hand in hand with compactness, representing the diversity of human activities that are located in different parts of the city. Compactness and complexity mean that the city is much smaller than a sprawling, mono-functional city that, throughout the twentieth century, spread from the American concept of the city. In the mono-functional city model, communications and transportations are governed by two, relatively recent industries, automobile and petrol.

The relationship between the urban model—dense, compact, and complex in activities and uses, and easy to reach—and energy consumption is very different from that observed in sprawling cities. In other words, the city configuration—the city canvas—is not viewed purely from a territorial standpoint, but using a holistic approach, since it has a direct influence on both the mobility and the management of natural resources, energy efficiency, and essential aspects of social cohesion and economic development, all contributing to urban sustainability.

In this context, Mediterranean cities—dense, compact, complex cities—are historically organised around two types of spaces: squares and neighbourhood spaces. The architectural shapes, as well as intangible aspects, such as social relationships, lifestyles, relationships with space and time, although inherently elusive, are considered to be common features for urban areas in the Mediterranean, constituting part of the area's identity.

Moreover, Mediterranean cities share some geographical and topographical features that define urban landscapes, which were adapted to their natural environment. Around the Mediterranean cities, there are often the same types of hills, ports, ledges, and rivers. The sea, sun, and wind contributed to the dissemination of architectural shapes such as patios, arcs, gardens, enclosures, etc., which are now the heritage of Mediterranean cities. Due to the nature of the Mediterranean climate, certain vegetation is common throughout the Mediterranean Basin. Olive trees constitute one of the most potent symbols of the regional environment and landscape. Additionally, the Mediterranean is recognised as one of the most original regions of the world with over half of the 25,000 plant species found there to be endemic to the region, e.g., some of the main cultivars, such as olive and vine. Despite its coastal orientation, the Mediterranean is a region of mountains. Houston [61] calls the mountains and basins of the Mediterranean the enigmatic variations of tectonic geology: a symphony of the earth not easy to understand. The presence of unstable mountain chains and of young sedimentary rocks explains the frequency of earth tremors. There is also a long history of disastrous earthquakes in the Mediterranean and of volcanic activity in southern Italy and the Aegean.

Common climate, landscape, and vegetation, as well as social habits, resulted over the years in common dietary habits, forming the Mediterranean diet, which holds an exceptional place in

international gastronomy. Moreover, the sea plays a dominant role in the Mediterranean complex. It acts not only as a significant economic driver and booster of tourism activity, but also as a meteorological catalyst, attracting low-pressure systems in the winter and acting as a kind of central heating in summer. Also, the sea functions as a passage for human migration and trade since the Neolithic times. The concentration of port-cities around the coasts reveals the ease with which cultures spread via the wet element. Salt and fish were its traditional primary resources; however, in the past decades, it took on new roles, attracting millions of tourists.

Undoubtedly, a great number of Mediterranean cities are characterised by their notable history, both in their cultural heritage and in their relationship with the past. Of course, this is not only specific to the Mediterranean cities. However, this a common feature which represents an urban constraint that can be used by the integration and preservation of historical sites in the city or the conservation and restoration of a certain urban unity in historic districts. In this sense, this history unquestionably has an impact on the attraction of tourists in Mediterranean cities. It should be highlighted that Christian urban forms, often inherited from the Romans, reflected local autonomy and pride, with open central squares, places of social exchange and placing of events, large town halls, and prominent churches.

Based on the survey results, the domination of the specific characteristics that reflect the thematic area of "urban structure" (category II, Figure 3) is obvious (Table 5). Indeed, historic palaces, port areas, and narrow streets are the most important characteristics for the Mediterranean area, attracting large masses of tourists and revealing the era of the past. Local specialities and central cafés in town squares are also determinant for the "Mediterranean identity". In general, open squares, as places of local exchange are important characteristics of the areas under study, also enabling late-evening activity. Moreover, proximity to basic services and urban density, together with complexity of uses and functions, are key elements of the Mediterranean identity.

| Importance               | A: >4.00 | B: 3.50-3.99 | C: 3.00-3.49 | D: 2.00-2.99 |
|--------------------------|----------|--------------|--------------|--------------|
| Specific characteristics | II7      | III2         | II14         | II5          |
| -                        | II9      | IV3          | VII6         | VII4         |
|                          | II3      | II15         | I10          | V3           |
|                          | V1       | VI1          | III5         | I11          |
|                          | IV5      | VII9         | IV9          | I9           |
|                          | VII10    | IV8          | IIII4        | I5           |
|                          | II10     | V5           | I3           | VII12        |
|                          | VII11    | V2           | <b>I4</b>    | V7           |
|                          | II1      | IV4          | I2           | VII1         |
|                          | V4       | III1         | VI5          | I7           |
|                          | VII8     | IV2          | II4          |              |
|                          | VI2      | II6          | III6         |              |
|                          | II13     | VII7         | I1           |              |
|                          | II11     | VI3          | I8           |              |
|                          | II2      | IV7          | VII2         |              |
|                          | II12     | I6           | I12          |              |
|                          | IV1      | IV6          | VI4          |              |
|                          | VII5     | II8          |              |              |
|                          |          | V6           |              |              |

**Table 5.** Hierarchisation of specific characteristics, according to their importance.

A limited number of specific characteristics were found to be under a high level of threat (Table 6). Specifically, they were the following; (a) "fish that is bought from port/beaches" (V4), totally justified due to unsustainable demand, significant export activities, and ineffective management, (b) "mobility" (II15), and (c) "small shops in town centre" (IV1).

III7 VII3 III3 III8 Sustainability **2018**, *10*, 3551 17 of 21

Table 6. Hierarchisation of specific characteristics, according to their level of threat from tourism.

| Level of Threat          | A: >4.00 | B: 3.50-3.99 | C: 3.00-3.49 | D: 2.00-3.00 | E: <2.00 |
|--------------------------|----------|--------------|--------------|--------------|----------|
| Specific characteristics | V4       | V5           | II14         | VI2          | I5       |
|                          | II15     | V1           | II11         | VI3          | VII1     |
|                          | IV1      | IV2          | VII3         | I2           |          |
|                          |          | V6           | IV4          | VI1          |          |
|                          |          | II3          | VII9         | III6         |          |
|                          |          | II10         | IV8          | II13         |          |
|                          |          | III3         | IV7          | I4           |          |
|                          |          | III2         | VII10        | I9           |          |
|                          |          | II7          | III5         | II5          |          |
|                          |          | II12         | III7         | II4          |          |
|                          |          | II1          | VII8         | VII6         |          |
|                          |          | II2          | IV3          | VII7         |          |
|                          |          | V2           | IV6          | VI5          |          |
|                          |          | III1         | I10          | I11          |          |
|                          |          | VII11        | П6           | IV5          |          |
|                          |          | II9          | I6           | I3           |          |
|                          |          |              | IIII4        | VII12        |          |
|                          |          |              | VII5         | VI4          |          |
|                          |          |              | II8          | VII4         |          |
|                          |          |              | III8         | VII2         |          |
|                          |          |              | IV9          | V7           |          |
|                          |          |              | I8           | I12          |          |
|                          |          |              | V3           | I7           |          |
|                          |          |              | I1           |              |          |

#### 5. Conclusions

Following an in-depth literature review and consultations among experts representing five European cities of the Mediterranean Basin, the characteristics and major categories that constitute potential symbols for the area's identity were identified and listed in the MEDASET. A strong consensus among 64 experts, representing five cities in a balanced way was accomplished. The domination of the specific characteristics that reflect the thematic category of "urban structure" was revealed. Historic palaces, port areas, and narrow streets are the most important characteristics for the Mediterranean area. Local specialties and central cafés in town squares are also determinant characteristics for the Mediterranean identity. In general, open squares, as places of local exchange, are important characteristics of the areas under study, also enabling late-evening activity. Moreover, proximity to basic services and urban density, together with complexity of uses and functions, are key elements of the Mediterranean identity. A limited number of specific characteristics were found to be under a high level of threat, namely, "fish that is bought from port/beaches" (totally justified due to unsustainable demand, significant export activities, and ineffective management), "mobility", and "small shops in town centre". Possible limitations could be introduced, such as the use of an unvalidated questionnaire, failure to achieve the number of surveys needed to reach the target set by the sampling scheme, and inability to reach a consensus among the experts. These limitations were considered to affect the research in a very low degree, due to the facts that (a) the questionnaire was validated by a panel of experts representing not only the Mediterranean areas that participated in the field survey (Dubrovnik, Genoa, Valencia, Venice, and Rhodes), but also Greoux-le-Bains (France), Larnaka (Cyprus), Thessaloniki (Greece), Palermo (Italy), and Malaga (Spain), participating partners in the "Alter Eco" project; (b) the number of experts needed to respond to the survey was easily met—the participation of academic institutions in the "Alter Eco" partnership supported this process; and (c) consensus was quickly met after two Delphi-like rounds, enhancing the validity of the results. A highly considerable limitation was linked to the ability to extrapolate and generalise the survey results to the greater Mediterranean macro-region. The survey results were presented to the "Alter Eco" [59] panel of experts, representing 10 areas in total, from five Mediterranean countries, and the outcomes were

validated. Additionally, historic palaces, port areas, and narrow streets were also revealed as the most important characteristics for the Mediterranean area by the literature too [76], thus providing a sort of validation of the results.

The enlightenment of the important characteristics of the Mediterranean identity, as well as those found under threat, provides interesting managerial insights into the identification and prioritisation of activities that are needed at the political level, aiming towards the preservation and promotion of the identity of Mediterranean urban areas. In an effort to introduce the spatial dimension of sustainability (apart from the environmental, social, and economic aspects) [72], the identified thematic categories can be viewed as elements of the case-specific component of a system of indicators. The system combines the specific characteristics to provide an overall assessment of the Mediterranean identity. The level under which the specific characteristics are under threat can be viewed as weighting factors [77,78]. This approach constitutes a future challenge for the authors, who will continue to work with the experts from the Mediterranean area to sustain a solid scientific testing basis of future results.

**Supplementary Materials:** The following are available online at http://www.mdpi.com/2071-1050/10/10/3551/s1: Table S1: Importance and level of threat of thematic categories and specific characteristics of the Mediterranean identity, as estimated by the 64 experts; Table S2: MEDASET questionnaire.

**Author Contributions:** Conceptualization, E.F. and C.V. Methodology, E.F. and C.A. Validation, C.V., A.V.M., and L.O. Formal analysis, C.A. and E.F. Investigation, E.F. and A.V.M. Resources, C.V. Data curation and visualisation, C.A. Writing—original draft preparation, E.F. Review and editing, C.A., C.V., A.V.M., and L.O. Project administration, L.O. Supervision, N.M. Funding acquisition, L.O. All authors read and approved the final version of the manuscript.

**Funding:** This work is funded in the framework of the project ALTER ECO, 1MED15\_3.1\_M2\_274, by the Interreg Med Programme 2017–2021.

**Acknowledgments:** The authors would like to thank deeply all the partners of the ALTER ECO project that participated in the first panel consultation, and the 64 independent experts that participated anonymously in the present study.

**Conflicts of Interest:** The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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