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Book of Abstracts

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1. Attractiveness of Islands

1.1 Insularities, fragmentation and connectivity in the Mediterranean region: a social and biological perspective

Authors:

Yildiz Aumeeruddy-Thomas, Virginie Baldy, Vincent Battesti, Jean-Michel Bellanger, Jamila Ben Souissi, Madga Boudagher, Gabriele Casazza, Bruno Fady, Anne-Marie Farnet, Christophe Lejeusne, Maria Cristina Lorenzi, Frederic Médail, Vanina Pasqualini, Franck Richard and Samuel Robert

The Biodivmex Working Group on Mediterranean Insularities aims at understanding how Mediterranean biodiversity is related to insularity (“true islands”, but also oases, submarine caves, ports, mountain tops and valleys...), at different ecosystem levels (multi-scale, from gene to species, or community and agroecosystem level), from a coupled social and biological perspective.

We shall present concepts, illustrated by specific cases, developed by this group to illustrate the idea that “insularity” is simultaneously defined by different levels of isolation, but also as a nodes in a (or set of) network(s) linked to other elements (islands, continent, biological elements, human (social and political activities) through processes of connectivity and or fragmentation both social and biological.

We shall also define connectivity and fragmentation as central drivers of biodiversity in the Mediterranean basin, which on one hand are inherent to Mediterranean geomorphological paleoclimatic contexts, but also as a result of intensive human activities on ecosystems — modifying them and creating some of them — for millennia’s. This relates to all types of insularities, whether it be small islands, ports, deep canyons, high mountain tops or different vegetation patches within large mosaics. Connectivity and fragmentation affect species migrations as well as gene flow, while also affecting or resulting from human activities. Connectivity and fragmentation are perhaps the best explanatory factors to deal with insularities, but also concepts widely used. This calls for careful re-definitions because they are often a central question in public policy and landscape management (e.g. EU Green and Blue Infrastructure). Yet, little is known about the effects of social and ecological connectivity and or fragmentation on the structure, function, and evolution of agro/ecosystems, anthropogenic landscapes of islands and people’s lives in the Mediterranean region.

Keywords: Environmental management, Biodiversity, Agrobiodiversity, Connectivity, Fragmentation
1.2 Accessibility to schooling on small islands: an exploratory study of options and opportunities on Kangaroo Island, South Australia

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Families living on small islands face a range of challenges when evaluating options for the school education of their children. This paper reports on a research study based on interviews with parents and children on Kangaroo Island. The Island is relatively large (≈4,400 square kilometres) yet has a small population (≈4,400), with some children living more than an hour’s drive from the nearest township. There is only one school on the Island, provided by the South Australian state government, with campuses in the three largest townships. Two of these campuses are relatively small, with multi-grade classes. Families have little or no choice of who teaches their child(ren), and opportunities for curriculum specialisation are limited, especially in the later years.

Preliminary data indicate that most families give careful consideration to the options available to them. A small number choose home schooling, others make the difficult decision to move away from the Island for the duration of their children’s education. Another, albeit expensive, option is to send children to boarding school in the state capital, generally for the final two or three years of upper secondary schooling. The majority of parents, however, opt to keep their children at the local school on the Island, believing that the quality of life and ethos of interdependence on the Island compensate in large part for the limited curricula choices in the school.

Keywords: Schooling, Accessibility, Small Islands, Curriculum Specialization, Families

1.3 Geographical analysis of accessibility in the Aegean Sea: The case of optimal siting of emergency evacuation means with Geographical Information Systems

Authors:

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Islands attract global attention due to their particular geographical, environmental, social and developmental characteristics. These features form specific needs, such as aero medical
transportation, constituting a challenge in the design of such specialized health services. The presence of islands is predominant in Greece. The Aegean islands face problems, not only in the health sector but also in the field of accessibility including lack of airports in the majority of small islands and decreased coastal connection with Piraeus port and the nearby cluster of islands. The purpose of the present work is the evaluation of the islands according to population criteria, health benefits, and transportation in order to the geographical entities to be found and analyzed extensively. The processing of geographic data constitutes an analytical approach to examine future locating of air means of the National Emergency Aid Centre regarding at the same time, the accessibility of these islands. The present case has been examined while the existing situation in the field of health, transportation and maps were created so as to provide a distinct illustration on the matter. The methodology followed to obtain the results of the current health situation in the Aegean islands in accordance with the above criteria included the analysis of existing demand and supply, which corresponds to the analysis of population per age group and recording of primary and secondary health facilities. The results indicate that the state of health services in 34 of the 51 islands can be characterized as "moderate" to "poor". For optimal positioning of the helicopters, their parking place was chosen in order to achieve the fastest aero medical transportation. Thus, the speed of helicopters in relation to the islands which are in need of further examination –considering the distance among possible island stations– was estimated, in order to draw conclusions for the time as well as the range needed so as the aero medical transportation to be implemented. Finally, the conclusions drawn from the study reveal that the health services of the exanimated islands could be improved further. The accessibility of the residents to appropriate health services could be enhanced by exploiting the existing helicopters for faster transfer of patients to tertiary health service, utilization of physical infrastructure, implementation of the proposed policy incentives and enhancement of transport links. The evaluation of the health needs of each island constitutes a properly designed condition, giving birth to a wide field of study in the country’s islands.

1.4 Flexible islands? specialization and un-/ under-employment across Greek crisis-hit island regions

Authors:

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The paper discusses the role of different industrial specialisation in unemployment and underemployment patterns across three island regions of Greece (e.g. North Aegean, South Aegean and the Ionian Islands). The paper is based on an analytical framework which allows for identifying the interfaces between diverse regional patterns of unemployment and underemployment, on the one hand, and production restructuring processes, on the other. For this, statistical data are analysed for two distinctive periods: the 2005-2008 period of economic expansion; and the 2009-2012 period of recession. Total employment, unemployment, full-time and non-voluntary part-time work data are extracted for the regional (NUTS-II) and the sectoral (NACE-II) level of analysis from the official annual Labour Force Surveys of ELSTAT.

Specifically, the paper accounts for regional specialisation through the calculation of the location quotient (LQ) index for the most important sectors of the regional economy. Also, the impact of differentiated industry-, or region specific factors – is estimated through a new embellishment of the shift-share analysis method on un-/under-employment trends across regions.

The paper finds that, the expansion of un-/ under-employment can be evidenced already in the pre-crisis period. But post-crisis patterns illustrate the shift of most regional labour markets – even the resilient ones (e.g. tourism) – towards higher shares of un-/ under-employment in a context of total employment devaluation and decline in most of the sectors.

**Keywords:** unemployment, underemployment, crisis, island regions, Greece

### 1.5 The multiple images of an island region

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The development of a region is based on its power to "pull" and retain both business activities and the right blend of people to run them; this pulling power depends on what we call the Image of the region. At each point in time, the region "sends out" its Image and, depending on its impact on the receivers the region may be considered attractive or non-attractive. The available evidence suggests that all the receivers’ groups, or in other words...
the potential movers, react similarly to a basic set of factors affecting the region’s image. On the other hand, they belong to a number of distinct groups that have a different type of interaction with a region and as result each of these groups is likely to have a different image of the particular region. Hence, a region does not have a single image, but multiple ones.

The case of islands is more complex since the various groups of potential movers may react differently to one of the islands’ key characteristics, namely geographical discontinuity and isolation. Our objective in this paper is to build on previous work done on the attractiveness and image of a region by focusing specifically on island regions and try to formulate an alternative model for an island region’s image.

The theoretical findings will be applied to a number of island regions and the results will be presented and commented upon.

**Keywords:** Island’s Image, Island’s Attractiveness, Regional Development

1.6 Developing an islands’ passenger ferry connectivity index

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Greek coastal shipping, based on a network of a large number of mainland-to-island, island-to-island and mainland-to-mainland connections, plays a critical role in the country’s social cohesion and economy. The appraisal of the Greek islands’ connectivity needs and the design of an adequate and efficient transport system compose a very complicated and complex problem. The problem is exacerbated, not only by the current economic crisis in Greece, but also by the lack of a systematic and sufficiently documented decision making procedure based on monitoring, recording and processing of the available data.

In this context, this research aim to evolve a methodology for the assessment of the level of islands’ connectivity, in terms of passenger ferry transportation, with regard to the islands’ actual needs, through the definition and assessment of an appropriate index. The most significant criteria and their composing sub criteria for the evaluation of such an index, may be grouped into two main categories: those related to the passenger ferry transport services, and those associated with the islands’ actual needs for transportation. A so called Island’s passenger ferry Connectivity Index (ICI) may then be derived from a formula, where
its variables correspond to defined and measurable criteria with a specific gravity that is rated through a public consultation. The calculation of ICI for each island destination within an island complex, providing in this way a comparative depiction of connectivity, may be a very useful policy making tool for both the regulator and the operator.

**Keywords:** islands, connectivity, passenger ferry, coastal shipping

1.7 The Feast and Commemoration festival for Hoang Sa (Paracel) soldiers in Ly Son Island and the cultural/historical background to Vietnam’s claims for sovereignty in the South China Sea

**Author:** Giang Thuy Huu Tran

The South China Sea has been subject to contesting claims that have intensified in recent decades and Vietnam has sought to provide evidence of its continuous presence in the marine area since times when no other countries claimed sovereignty over them. This paper presents an overview of one traditional cultural festival on the Vietnamese island of Ly Son that reflects a long established marine presence in the region. Following a description of The Feast and Commemoration festival for Vietnamese soldiers bound for service in the Hoang Sa (Paracel) islands, the paper relates how this distinctive event has been interpreted as supporting Vietnamese claims for sovereignty in the region. The paper addresses the manner in which cultural events are open to cultural and political interpretations that seek to contextualize them in particular contemporary geo-political contexts.
2 Islands Economy

2.1 Offshoring Accountability: Conspicuous Sustainability and the Exemplar Trap

Author: Adam Grydehøj

Island spatiality exerts an attraction to those in search of spaces of utopian possibility. In today’s world of globalised politics, economics, and crises, small islands are frequent recipients of projections of perfection: The straightforward territorial demarcation and small population size associated with islandness present the potential for experiments in responsible politics, economies, and resource use – and achieving visible and communicable results at a manageable cost. This encourages some sub national island jurisdictions and small island states to undertake iconic and symbolically significant initiatives aimed at leading the way in and becoming role models of sustainability by investing in environmental protection, sustainable industries, and renewable energy. Although tempting, pursuit of such self-consciously utopian island policies risks placing small island communities in an exemplar trap: continually held to higher and more expensive standards than mainland jurisdictions without necessarily or efficiently improving local economic and environmental sustainability.

Small islands can benefit from policy innovations, but symbolic island acts of ecotourism and renewable energy will not prevent global crises of climate change, loss of biodiversity, and resource scarcity. Instead, acts of conspicuous sustainability indulge the damaging, mainland-centric illusion that the world’s smallest communities are themselves accountable for solving global problems in which they have a massive stake but bear little responsibility. They also lead to inter-island competition over the diminishing returns of the reputational benefits accrued from eco-vanguardism. This paper ultimately questions the usefulness of symbolism-driven island sustainability initiatives and encourages small islands to strive for developmental solutions that address actual local needs rather than become trapped in unrealisable expectations of perfection.

Keywords: Sustainable development, climate change, globalisation, conspicuous sustainability, offshoring accountability
2.2 The impact of technology on island societies

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Taking a broad time perspective on development shows clearly the tremendous impact of technology and technological development on social and economic life. On a small and limited geographic area like an island this impact becomes apparent. The life story of Landsort, the southernmost island in the vast Stockholm archipelago with around 24000 small and medium size islands serves as an example here. Similar example can be found elsewhere in the world.

Most small islands have been predestined to live by what the surrounding sea and limited resources could provide – fishery, petty farming, craftsmanship, tourism and trade. But owing to their strategic position a few islands have been of interest for the State, either as military outposts for defence purpose or to serve commercial shipping by providing navigation assistance through pilots and lighthouses. Regular income as civil servants made those islanders employed by the State less dependent on traditional support by fishing and farming.

In the late 19th century technology for ship and navigation aids advanced and with the breakthrough of information technology in the 20th century two major processes started with significant impact on shipping. Presence of the State on islands changed accordingly, from promoting jobs as shipping increased to withdrawing jobs as information technology enabled mainland based services.

In this case the technological development led to depopulation. The paper discusses how the opposite trend could be envisaged – new technology creating jobs on islands.

Keywords: technological development, State involvement, job creation, pilotage, lighthouses.
2.3 Technologies for the Sustainable Development of Small Islands
Author:

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¹President Emeritus UPEI

The recent advent of technologies such as the internet, social media, cost effective renewable energy and most recently 3D printing provides incredible promise for the sustainable development of small islands. This paper will explore a number of these technologies and the enormous contribution they can make to the sustainable development of small islands as well as some examples of their successful adoption.

2.4 Do small islands have a strong patrimonial responsibility for the conservation of plant species in the Mediterranean region?
Authors:

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We present a specific case questioning how conservation of biodiversity may apply in the case of small islands. This study aims at understanding how Mediterranean biodiversity is related to insularity. PIM (which means ‘Petites îles méditerranéennes’ i.e. Small Mediterranean Islands) is a French initiative mainly supported by the ‘Conservatoire du Littoral’, which has recorded since several years the biodiversity in different small islands in the West Mediterranean. Results from this initiative shows that these small islands are characterized by particular communities of species, especially in comparison to neighboring mainland, due to their biogeographic history and to variable intensities of human impacts. Some species are particularly abundant whereas others are rare or absent; certain plant species correspond sometimes to the main population at regional or national level. Thus, different observed cases in small Mediterranean islands showed that, in spite of their small size, certain of them have a strong patrimonial responsibility in the conservation of these plant species. As an example, more than 50% of individuals of the orchid *Gennariadiphylla* (protected at national level) in France is present in small Cavallo island with a surface of 120 ha (south of Corsica), which is inhabited and where it coexists with several invasive species like *Carpobrotus edulis*. Such small islands are laboratories to explore particular approaches of species conservation and the limits of patrimonial responsibility.
Keywords: Conservation, patrimonial responsibility, plant community, small Mediterranean islands.

2.5 Sustainable local development on Aegean Islands: a meta-analysis of the literature

Authors:

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Sustainable local development has become central in discussions and debates on socioeconomic and environmental changes. For islands, the content of the terms is still in dispute, but at the same time, its application is more urgent than ever. Many different initiatives of local development under different contexts, with a variety of methods and results have been studied in the scientific literature in the recent past. These past experiences can provide valuable input in order to plan, manage and evaluate local development to islands. In this paper, we study positive and negative examples of sustainable local development for the Aegean Islands, Greece. We review the scientific literature of the last two decades in three rounds: in the first all papers on Aegean islands are selected, in the second only papers dealing with case studies of the last two centuries were selected and in the third round only specific case studies were chosen that could fit into a predefined number of themes, including economic, social and environmental issues. Out of the initial number of 1,562 papers, 82 papers made the final selection. The results demonstrate a wide variety of methods and concepts used for the case studies, which makes the assessment of success/failure a bit blurred in many instances. Environmental issues appear very late and in a few instances are linked with economic development, while the majority of the papers deals with various aspects of tourism and its development, highlight both positive and negative socioeconomic effects and energy, which appears to be a very important issue for these islands.

Keywords: Local development, meta-analysis, economy, environment, islands, Aegean

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The Operational Program 'Education and Lifelong Learning', which is co-funded by the European Union (European Social Fund) and National Resources.

2.6 Economic Growth and Human Development in the Island Economy of Sri Lanka

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The island economy of Sri Lanka is in the Indian Ocean close to India. It has better human development record in South Asia and is found to be initiating economic reforms earlier than that in India or China. It has many firsts to its credit: human development, economic reforms, women empowerment, etc. Civil war in Sri Lanka, since the early 1980s till few years back, seems to have dwarfed the economic growth. Recent increase in the growth rate seems to require strong back up from, at least, two parameters, viz. human development and fiscal policy. Macroeconomic parameters like sectoral behavior and growth pattern, savings and investments; pattern of manufacturing; size and structure of the exports and imports in Sri Lanka do not imbibe much sense of confidence.

Given the above, objective of the present paper is to analyze poor macroeconomic conditions in this island economy through time-series data. However, human resource development seems to be a bottleneck despite better human development condition. Thus, identifying role of the human development and fiscal policy in the face of poor macroeconomic framework would be the major line of analysis. We shall be using time series data along with econometric and descriptive approach for meaningful inferences. This is important for this island economy as it has to face challenges from two Asian giants of India and China besides having poor natural resource base. This requires shifts in strategy and an approach of innovative policy strategy may be more meaningful.

Keywords: Fiscal policy, human development, policy shifts, growth pattern, macroeconomic parameters
2.7 The Research Management Profession: Can it flourish within universities in small island states?

Author:

Christian Bonnici

The past fifty years have witnessed two simultaneous developments: on the one hand, a widespread increase of the study of small states including islands studies; and on the other hand, the rise of the Research Management Profession and the literature contributions surrounding it. This paper aims to reflect on both developments and to generate a discussion on: (1) whether there is room for the Profession within the context of universities in small island states; (2) the extent to which the Profession can distinguish itself within universities in small island states from other more established professions; (3) whether Research Management is a career option within universities in small island states or whether it is just another job for a multi-functional manager/administrator with limited possibilities for specialisation and professionalisation; (4) how the inherent characteristics of small island states can shape the development of the Profession in such idiosyncratic contexts; and (5) whether the ways in which the Research Management Profession is shaped in small island states can contribute towards the distinctive identity of small islands states. The insights of this paper are generated by an ‘insider’, who lives on an island himself and who, through his employment in the support of research in a small island state university, faces the dilemmas, intricacies and challenges of managing research in a small island state context on a regular basis. The papers draws insights from a qualitative study in which the Research Management practices, challenges and strategies in three European small islands state universities are analysed and compared.

Keywords: Small Island States; Research Management Profession; Research Managers and Administrators; Island Studies; Universities
2.8 The geographical aspect of islands development issues – the example of the Republic of Croatia

Authors:

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The Croatian insular area is located along the eastern Adriatic coast and covers an archipelago of 1246 islands, islets, rocks and reefs in total. According to last Census (2011), 47 of them were inhabited during the whole year. Occupying only around 5% of mainland part of the territory, based on their spatial characteristics and developmental specifics, islands undeniably present an area of the national importance. Although the issue of the Croatian islands' development was recognized still in the 1980s and the basis of the islands development policy was set up in the 1990s by adopting two major planning and legislative documents (National Island Development Programme and the Islands Act), contemporary socio-economic and demographic processes and trends on them indicate on divergent and regression developmental trends in relation to the land areas and regions, which are further highlighted by the island's transport-communicational needs and a certain degree of islands' isolation.

Based on the specifics of islands spatial components: administrative-territorial heterogeneity, winter-summer demographic contrast, traffic (in) connection and (in) accessibility of the islands, it will be reviewed the broader context of the contemporary Croatian island's development policy, also the authors' consideration if it takes into account the fundamental nissological principles or it treats and indentifies the islands with continental area, which also disputes their physical characteristics and development specificities.

Keywords: Croatian islands, demographic trends, insularity, nissology, seasonality.
3 Islands governance

3.1 Keeping the peace in Paradise: police, politics and pay offs

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Most small islands nations of the Pacific have established British or American style police services to enforce their codes of law. What might have worked well under strong colonial administrations, however, may not work as well in newly democratising countries. This paper is based on surveys of community perceptions of policing in nine Pacific Island countries. The surveys showed that community satisfaction, confidence in policing services and police effectiveness tend to be undermined by two sets of factors: first, the difficulty of reconciling traditional Pacific Island values with the roles and responsibilities of police officers, and, second, the way police services are administered in small Pacific nations. This paper begins with a short introduction to the law and order context in the studied countries and then considers the impact on policing services of authoritarianism, reciprocity, social hierarchies and obligations, budgetary constraints and management practices.

Keywords: Pacific, law & order, police, culture.

3.2 Island Governance in Greece: The application of the “one island-one municipality” principle

Author:

Vasilis Leontitsis

Greece is a country characterised by fragmented space. Its mountainous character and high number of islands are responsible for the existence of many isolated territories within its boundaries. Those territories boast a high degree of internal cohesion, but also experience economic, social and political disadvantages. This is particularly true for the country’s islands. Most of the latter are small in size and in considerable distance from the populous urban centres of the mainland. Thus, they are difficult to govern, while they suffer from the under-provision of public goods. As of 2010, the so-called “Kallikratis Programme” (Law 3852/2010) has attempted to re-organise them politically according to the “one island-one municipality” principle. It has thus dictated that each island is to be comprised of one single municipal entity (apart from the exceptionally big or exceptionally small islands). The paper
discusses the principle, the way it has been applied in practice and its implications for the Greek islands. It therefore draws on the increasing island studies literature, extended documentary analysis and a number of interviews to open up the discussion on Greek islands as political spaces and their governability issues.

**Keywords:** Greece, islands, municipalities, governance.

### 3.3 The EU Outermost Regions: Outposts or Outcasts

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How true is the French parable “loin des yeux, loin du coeur” (out of sight, out of mind) to the EU Outermost Regions (OMRs). This paper examines how much priority the EU gives to the sustainable development of OMRs. In 2010, the EU issued its pivotal 2020 Horizon Strategy for its growth. Following that, in 2012, the EU Communication on sustainable tourism was adopted. The Communication was prepared for the EU at large rather than OMRs specifically. In parallel, OMRs developed strategies for achieving the EU 2020 Strategy. In this paper, the concept of sustainable tourism will be analyzed from both lenses, of the EU and the OMRs, to find out how both frameworks can attain sustainable eco-tourism while equally reaching towards the ambitious aspiration of the EU to be the world’s leading tourist destination. The paper argues that the EU should consider adopting an integrative, intelligent approach in supporting tourism development in the OMRs. This approach advises tackling tourism across various industries and cross-borders, while considering the particularities of each OMR. It further calls upon business and consumers of the different tourism products to adopt a responsible and sustainable approach that addresses the consumers’ psychological desires as well as ecological necessities. Case studies used are drawn from the Atlantic: the Canary Islands of Spain, and Madeira and the Azores of Portugal.
3.4 Does size matter? The diplomacy of the smallest and poorest island microstates

Author:
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Small Island Developing States (SIDS), particularly those microstates with populations of less than 100,000 people, are often dismissed as “suboptimal participants” (Hagelin 2005) in the international system. Much of the academic literature has therefore traditionally focussed on the nature of their so-called “fragility”, “weakness” or “vulnerability”, and only in recent years has the field of their “resiliency” begun to emerge. However, this resiliency has itself been viewed in a largely negative or reductionist context as simply an attempt by these island nations to financially “cope”, almost entirely overlooking the circumstances under which they have in fact been able to use diplomacy to influence the behaviour of larger powers (Baldacchino 2009). And as Payne (2009) has highlighted, “an excessive preoccupation with vulnerability easily leads to defeatist, misinformed and inappropriate diplomacies”.

By developing a framework for analysis, this paper hypothesises that SIDS are best able to influence the behaviour of a larger power when they operate outside of or beyond traditional legalized environments such as multilateral negotiations or dispute resolution mechanisms, and instead adopt a more creative diplomatic approach which maximises their moral authority and their ability to build alliances and win over public opinion, while making the best use of their often limited capacity (Cooper and Shaw 2009). However, this paper also hypothesises that these SIDS are only able to prevail using these methods in circumstances where there is already some degree of alignment with the larger power and not purely when there is a complete divergence of interests – or a zero sum game.

Key words: diplomacy, islands, microstates, SIDS, foreign policy
4 Tourism and Islands

4.1 Aegean islands as ‘ecomuseums’: the case of Lesvos Island

Author:

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¹ PhD Researcher

The main advantage of the Aegean islands, so as to generate national, regional or international competitiveness, compared to the areas on the continental mainland, are their natural and cultural assets. Consequently, organized utilization of cultural heritage, rich biodiversity and the unique Aegean landscape, make the islands attractive as places for living or working and could help them fulfill their sustainability goals. Nowadays, such advantage is seriously threatened by the spread of Aeolian industry and big fast track investments and by mass tourism. Thus, there is an urgent need to conceptualize, plan and implement alternative integrated approaches.

Ecomuseums are ‘in situ’ museums (or landscape museums) and aim at the interpretation, protection and promotion of natural and cultural heritage of a place, and at the economic revival of marginal regions through the combinational development of small-scale tourism, local manufacturing (i.e. arts and crafts) and primary production sectors. In other words, they focus on geological, morphological, ecological, socio-economic, ethnographic, historic, archaeological, aesthetic, mythical, symbolic and other tangible and intangible aspects, characteristics, elements and structures of human-space relationship within a life space and on the management of cultural landscapes, so as to ensure human quality of life. They are addressed to local communities and managed by them. The island of Lesvos has been selected as a case study of a potential ecomuseum, based on a network of thematics/topics and structured narrations of specialists and locals, chosen in order to represent the identity and the value of different landscapes.

Key words: sustainability, ecomuseums, landscapes, heritage, community
4.2 Small islands: special places for heritage tourism

Authors:
Angela Dettori, Ernestina Giudici

The latest development that has affected tourism can be summarized in a word: experience.

Today’s tourists increasingly are demanding to know the history, traditions, cooking habits, and similar things of the places that identify the lands they are visiting. Tourists increasingly are loving the aspects that make their vacations unforgettable emotional and involving experiences.

Therefore, consistent with more general global trends in cultural tourism, heritage tourism has emerged as a popular form of tourism. Heritage tourism is viewed to a great extent as an “experiential consumption” and the perceived quality of tourists is much more associated with their experiences during the visitation process than the services provided by the territory.

Using the above considerations, this paper investigates how experiential marketing can be a means of promoting cultural heritage, and it explores the significance of cultural tourism as an example of a niche tourism market. In addition, to better understand if there is a clear expression of the way enduring identity and traditions become an authentic tourist experience full of strong emotions, we adopt the case study methodology analysing the case of heritage tourism in Sardinia. More precisely, we draw our attention to the uniqueness of the special small islands around the Sardinia main island. The contribution of this study is that it is of interest both for academicians and operators because, combining experiential marketing with cultural heritage, determine an increasing of knowledge in this field of studies and an useful new point of view for activities in the tourism field.

Keywords: Heritage tourism, Experience, Small islands

4.3 Fishing tourism: conceptual, segmentation and research potential in Malaysia

Authors:
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Fishing tourism is one of the most popular form of alternative tourism in Western countries but is still new from the context of research and development in Malaysia. This paper...
examines the concept and segmentation aspects as well as the potential of research on fishing tourism in this country. From a conceptual point of view, the relationship between fishing, recreation and tourism will be explored, in addition to explaining the concepts and categories of fishing tourists. In the segmentation aspect, three segments that is, boat operators of fishing tourism, profile of fishing tourists and fishing locations are discussed. Furthermore, the relationship between the model of tourism development level and stage as proposed by Carter and Stronza (2014) and fishing tourism are also described. The final part of this paper presents the issues and research potential of fishing tourism in Malaysia.

**Keywords:** Fishing Tourism, Concept, Segmentation, Potential, Malaysia

4.4 **Operationalizing Tourism Sustainability: The case of Aegean Sustainable Tourism Observatory**

Authors:

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Recent research urges for systemic methods and operational tools in support to the complex processes of Tourism Destination Management and Sustainable Development. Despite the improvements on data quality and scaling, the evaluation of tourism sustainability performance remains a quite challenging endeavor. The paper introduces Tourism Sustainability Assessment Tool (TSAT) a dynamic, multi-dimensional and multi-stage platform accounting for the complexity of tourism sustainability at destination level. Its methodological framework roots to the principles of Sustainability Science (systemicity, dynamics and perspective) and develops over an integration of available approaches and techniques.

Building on data from the Aegean Sustainable Tourism Observatory, TSAT demonstrates its potential to assess and forecast sustainability at NUTS 3 level- Aegean island destinations (Greece)under the application of different developmental tourism planning scenarios. The comparative assessment captures the different tourism product typologies and co-evaluates tourism sustainability as the integrative effect of economic, social performance and environmental pressure. In this regard, it further enables the reliability control of TSAT as an operational tool of generalized applicability and amplifies its potential to serve as a monitoring and benchmarking system.
As the measurement of Tourism Sustainability is associated with the great paradox of valuing what can be measured instead of measuring what is of value, there is still no common agreement on an adequately generalized framework of tourism sustainability assessment. TSAT offers an alternative towards this direction, while enabling the operationalization of tourism sustainability within specific planning and decision contexts.

**Keywords:** Operationalizing Tourism Sustainability, Sustainable Tourism Observatory, Destination Management.

### 4.5 An Assessment of Approaches to Sustain Niche Tourism in Molyvos, the Greek Northern Aegean

**Authors:**

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Despite its inherent complexities, the tourism industry orients itself in order to homogenize the broad range of services it offers and simplifies the act of tourism for the traveler. Molyvos, located in the Northern Aegean, however, seems to offer an alternative perspective to this socioeconomic activity – ‘niche tourism’. This study examines the mechanism and trajectories for the existence of such systems through a public perception study on the conceptual and practical aspects that engender the niche. In particular, through a self-administered assessment the resident’s place-based perception of the impact of tourism is investigated to determine the factors affecting its development. Without delving into ontological debates, it adds to the discourse on sustainability transitions by exploring the current practices on the island. We also depict the efforts (conscious or otherwise) by its stakeholders, entrepreneurs and communities that govern the extent and magnitude of tourism. Further, the study also examines the motives for the apparent rejection of a market-based approach for a lifestyle-based one and the subsequent interaction of inhabitants with repeat customers. To ensure the sustenance of such systems and to propagate it across other islands with similar features two approaches are explored: (i) specialization of the current niche and its enlargement through integrated planning and
management; (ii) creation of synergistic non-consumptive niches within the existing societal organization.

Keywords: Sustainable tourism, Niche theory, Small island development, Resident attitudes, Perception study.

4.6 Tourists' satisfaction by port and shipping services as a motivation to revisit a place; findings of a survey of Turkish tourists during their vacations in Chios Island

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The massive flow of Turkish tourists started visiting the islands of the Eastern Aegean, in 2012; right after the Greek Government has abolished visa restrictions for non-EU citizens.

This paper presents an analysis of short distance tourism flows between neighbor countries, and how does shipping services affect tourist’s satisfaction. For the purpose of this research Turkish tourists that travel to Chios Island from the coastal cities of Asia Minor were examined.

Questionnaires in Turkish have been developed and distributed in hotels, traveling agencies and on board of ships to and from Turkey, examining many factors affecting destination choice such as itineraries characteristics and shipping services.

Preliminary data analysis shows that destination choice depends on tourists’ socioeconomic characteristics, satisfaction from itineraries frequency, reliability to arrive on time and overall satisfaction from the shipping services offered to tourists travelling to and from Turkey.

The results of this research will be a useful tool for decision makers and service providers, both in the public and private sector, to conduct policy analysis and propose innovative strategies to increase the attractiveness of Greek island to Turkish tourists.

The paper is structured as follows. In Section 1 the current situation is analyzed and in Section 2 the existing literature tourist’s destination choice is reviewed in detail. Section 3 describes the methodology of this research. In section 4 the data analysis is conducted. The
paper concludes by exploring the factors affecting tourist destination choice based on consumers’ satisfaction of the offered maritime services.

**Keywords:** shipping services, tourists’ satisfaction, destination choice.

### 4.7 The importance of sustainable tourism in islands. The case of Puerto de la Cruz

Authors:

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Tourism public policies have recently evolved moving away from the mere renovation of public spaces to more holistic policy approaches in order to envision sustainable destinations that incorporate a suitable balance between the three dimensions of tourism development: the environmental, the economic, and the socio-cultural. This is of great importance in fragile territories such as islands. This communication will analyse the case of Puerto de la Cruz, the oldest tourism destination in the Canary Islands and a definite paradigm as a consolidated resort proposing sustainable policies and actions to stop the on-going decline of this destination and to produce a tourist destination sustainable, from the point of view of both the socio-economy and the environment.

### 4.8 High-Tech entrepreneurship on a low-tech island: The biosciences and BioVectra Ltd. on Prince Edward Island, Canada

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The literature on small islands suggests that entrepreneurship is conditioned by a jurisdiction’s political, economic and geographic context, with the presence of visionary leaders, educational institutions and governments, scale, peripherality and export-orientation being important developmental factors. The research presented here uses a case
study approach to better understand the high-technology biosciences sector on Prince Edward Island (PEI), Canada, a largely resource-dependent island province. It focuses on the birth and growth of BioVectra Limited, a key firm in this sector. It concludes that many of the factors associated with the growth of biosciences clusters elsewhere in the world, including an existing research infrastructure, readily-available investment capital, and local supply linkages, do not exist on PEI. Rather, the role of key entrepreneurs and accessibility to decision-makers at key points were more important in the success of the firm and the sector.

**Keywords:** entrepreneurship, small islands, biosciences, BioVectra

4.9  Jersey, a small island international finance centre: A prescription for survival?

Author:

Michael J. Oliver, Open University Business School

In a recent chapter in Entrepreneurship in Small Island States and Territories, Entwistle and Oliver (2015) considered the success of Jersey's finance sector and the recent challenges it has faced. The chapter drew on Baldacchino’s (2006) classification of a PROFIT economy and emphasized that Jersey has been a preeminent example of such a typology. Whilst the chapter highlighted some positive examples of how Jersey is adapting to survive, this paper considers impediments which frustrate the adaptation process. These can be grouped into three. The key challenge surrounds the economy (e.g. raising productivity; taxation; diversifying the economy and the challenges to the existing model of finance) but this cannot be separated from the political (e.g. disengagement by the electorate) and the social (rising inequality despite the growth in transfer payments to poorer sections of society). The increased tensions that are now being felt in an island are a product of faltering economic growth rates, which in turn have added to social and political unease. It is suggested that there are lessons for other PROFIT economies and the discussion advanced in the paper will address some of the ‘troubling questions’ raised by Clark (2013) and the core issues of sustainability and well being in an island community.
5 Islands in Art

5.1 Sociology of Island Music---A Case of Corsican Polyphony

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We can pick up numerous ethnic vocal polyphonies in the Mediterranean World including the island regions. Corsica (France) is famous for contemporary ethnic music called Corsican Polyphony (\textit{Polyphonie corse} in French, \textit{Pulifunie} or \textit{Voci} in Corsican).

Corsican music has been researched by several ethnomusicologists. As a result, we can find traditional island society from different viewpoints. Firstly in the traditional Corsican society, singing and vocal practices were not conscience as ‘music’ for the islanders. And secondly, singing was based on the role sexually divided. The men sing outside their houses and the women do inside their home.

However, ethnologic approach of island music has lost its meaning about the contemporary Corsican society. Because her vocal tradition \textit{voci} was completely disappeared in the beginning of the 1960’s. Corsican nationalist movement in this era made the insular younger generation combine music and lost vocal tradition. This is a birth of Corsican polyphony.

In the former years of the 1970’s, several pioneer and legendary polyphonic groups were created. Actually the group \textit{I Muvrini} is well known in the World. The other group \textit{A Filetta} also whose style of playing is completely different from \textit{I Muvrini} has a great success. However more than 100 polyphonic groups which are not very known exist in the island.

What meaning Corsican polyphony gives to the Mediterranean island society? I consider that by the observation of group formation and lecture of their masterpieces.

\textbf{Keywords:} Corsica, polyphony, music, sociology, sociomusicology

5.2 Towards a Poetics of Islomania: the Archipelago of Desire in Julieta Campos’ The Fear of Losing Eurydice

Author:

Danielle Redd

Julieta Campos’ postmodern novel, \textit{The Fear of Losing Eurydice}, is saturated with images of islands. The text portrays the struggle of Monsieur N., as he sits in a café, obsessively trying
to gather his thoughts on islands for his “islandiary” whilst observing the couple at the next table. They are ensiled from the outside world, oblivious to all but each other. But this shared utopia is ephemeral, vanishing as soon as one of them ‘begins to dream a different island’ (Campos, 1993, p36). Of course, islomania is not unique to Monsieur N. – islands have long figured as spaces of fascination and beguilement within the western cultural imaginary. But islomania is usually read within a history of imperialism, as a somewhat phallocentric urge to conquer, colonise, and possess. Through this lens, Monsieur N.’s failure to explain the island in his “islandiary” can be read as a subversion of this hegemonic vision (Fallon, 2011). I will use this reading alongside a range of psychoanalytic and semantic approaches to desire, from Kristeva to Berlant, in order to move towards establishing a poetics of islomania. I will question the possibility of subverting the historical positioning of islands as desired objects, subject to seizure and appropriation, instead positing them as ephemeral utopias; spaces that enclose their creators and evade the outsider’s analytic gaze. Finally, I shall conclude by examining whether a shared vision of Utopia is possible, or if literary islomania creates an archipelago of desire – islands separated by a sea of incommensurable difference.

Keywords: Campos, islomania, Utopia, psychoanalysis, desire

5.3 Beyond the stigma of incompleteness: short stories as the island literary genre par excellence

Author: 

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¹Macquarie University

This paper aims to further explore the place of literature within the field of island studies by examining how rupture and flux are negotiated in the short stories of New Caledonian writer Claudine Jacques. Building particularly on the fluidity of identities as a key constituent of island literary studies as championed in Lisa Fletcher (2011) and Elizabeth DeLoughrey’s (2007, 2011) respective work, I will examine how short stories lend themselves particularly well to textualising postcolonial islandness.

Expanding on cultural geographer Joël Bonnemaison’s definition of “îléité” (1990-1991), I suggest that postcolonial islandness can be defined as the literary translation of how the island is experienced as a spatial (geographical) and temporal (historical) rupture, thus becoming a social referent of lived liminality. In the case of short stories, this rupture occurs in the experience of the epiphany, an essential narrative element that “fuses past, present and future in a moment of continuous flux” (Rohrberger, 2004, p. 11).
Through a selection of Jacques’ work, in which the role of each text within the collection also calls for a reassessment of the individual/collective nexus, I will demonstrate how her short stories brim over the edges of their textual limits to create what I call a literary photomosaic.

Keywords: Short stories, Islandness, Literary Photomosaic, Rupture and Flux, New Caledonia

5.4 The Island and Caliban

Author:

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The paper attempts to draw a parallel between the representation of the island native, Caliban and the trope of the island itself, using discursive analysis of theory and metacritique. This paper speculates on the ideology of Caliban that stereotyped the New World island inhabitant from the early days of voyages to the Americas.

Methodology and Argument: Through reading theory— in Roberto Retamar, Octave Mannoni, Aime Cesaire, Frantz Fanon, Benitez-Rojo, metacritiques of Shakespeare, the paper tracks Caliban but particularly in relation to aspects of island life worldwide— their isolation, their otherness, their exploitability. Reading Caliban through the various manifestations he has taken, through Shakespeare, Mannoni, Cesaire and more modern theoretical critiques of him, the paper attempts an ecological reading. The inhabitant is seen as symbolic of the land. I argue that the vulnerability of islands may be read in the figure of Caliban.

Historical examples: I extrapolate the construct of the Caliban to two real life historical cases, based on two anthropological studies, one Caribbean, one global. First, I wish to look at the indigenous islanders of Puerto Rico, the Taino, whose supposed extinction has been questioned recently. I argue that colonial discourses erected such a figure of distaste and terror in the supposed "cannibal" islander, based not in PR but in the neighboring Hispaniola, as the Carib, that extinction became a convenient fate to be accorded an island figure. The fugitive Tainos in fact, it has recently been argued, did survive and hand down a culture that persists through this day. I read Anthony Castanhas's study of the myth of extinction of the Taino. The Taino becomes a type of Caliban.

The second, more global, example I take is from the Andaman Islands, reading closely one anthropological study by Madhushree Mukerjee, of their inhabitants. Once again, I read the trope of Caliban in that study. The inverse relationship between the vulnerability of the
island and the fierce anti-social qualities attributed to the inhabitants is a persistent feature in the discourse.

5.5 Popular Fiction and Performative Geographies: Island Snapshots

Author:

Ralph Crane

1University of Australia

The east coast of North America is a favoured setting for writers of contemporary romance, such as self-publishing sensation Marie Force, who recently released the twelfth novel in her Gansett Island series, which is inspired by her ‘favorite place in the world [...] Block Island, located twelve miles off the southern coast of Rhode Island’ (Maid for Love, Author’s Note).

Crime fiction, too, frequently takes actual islands as its setting and subject, including John Enright’s Jungle Beat Mystery series set in American Samoa. As in many other postcolonial detective novels set in the Pacific, place, the real geography (physical and cultural) of the islands, is a critical element in the story. The atlas of fantasy fiction, like those of romance and crime, is also crowded with islands. Scott Lynch’s bestselling Gentleman Bastard Sequence, set in the island city-state of Camorr, uses the idea and practice of ‘world-building’—both in narrative terms and through the imaginary cartography of the detailed maps which are a treasured feature of this genre—to think creatively and critically about island cities. Together, these snapshots offer rich examples of the meta-geographical potential of genre fictions as they both depict and reflect on islands as performative geographies, or spaces that make and unmake individual and social identities.

Keywords: performative geographies, romance, crime, fantasy

5.6 The Genre of Islands: Popular Fiction and Performative Geographies

Author:

Lisa Fletcher

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To date, studies of the contribution literature makes to ideas about islands have concentrated on ‘high’ literature. This has left unexamined the largest proportion of literature featuring islands. When measured in industry and commercial terms, popular fiction—or genre fiction—is a juggernaut compared to literary fiction. If one of the goals of
island studies is to interrogate prevailing ideas about ‘islandness,’ then the islands that crowd the story-worlds of popular genres merit close attention. This paper focuses on genre fiction to propose ‘performative geographies’ as a key concept for island studies of literature—and indeed other domains of culture. The ideas about space and place communicated by bestselling novels spill beyond the bindings of books into broader cultural discourses about the world in which we live. These effects can be as subtle and difficult to explain as prompting one reader to associate island beaches with falling in love and another to imagine mermaids on the same beach, or as stark and strange as when the branding of an island tourist resort is saturated by the imagery of the James Bond franchise. Popular genres are more than sources of distraction and entertainment for billions of readers. They are systems of meaning, which have an immeasurable impact on our spatial awareness and imagination, even for those of us who may claim to have never read a genre novel. It is, this paper will argue, time to grapple with the roles genres play in the world of islands.

Keywords: performative geographies, genre fiction, islandness

5.7 Understanding island space, based on the works of Brandão and Nemésio

Author:

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To date, studies of the contribution literature makes to ideas about islands have concentrated on ‘high’ literature. This has left unexamined the largest proportion of literature featuring islands. When measured in industry and commercial terms, popular fiction—or genre fiction—is a juggernaut compared to literary fiction. If one of the goals of island studies is to interrogate prevailing ideas about ‘islandness,’ then the islands that crowd the story-worlds of popular genres merit close attention. This paper focuses on genre fiction to propose ‘performative geographies’ as a key concept for island studies of literature—and indeed other domains of culture. The ideas about space and place communicated by bestselling novels spill beyond the bindings of books into broader cultural discourses about the world in which we live. These effects can be as subtle and difficult to explain as prompting one reader to associate island beaches with falling in love and another to imagine mermaids on the same beach, or as stark and strange as when the branding of an island tourist resort is saturated by the imagery of the James Bond franchise. Popular genres are more than sources of distraction and entertainment for billions of readers. They are systems of meaning, which have an immeasurable impact on our spatial awareness and
imagination, even for those of us who may claim to have never read a genre novel. It is, this paper will argue, time to grapple with the roles genres play in the world of islands.

**SUMMARY:**

The premise of this article is that island space is unique and has its own particular characteristics. Thus, we are looking for the answer to the question: "How is spacial awareness defined, in terms of territory, when it is an Island". The answer to this question, will determine the specific attributes which characterize an island. The archipelago of the Azores was used as the basis for this study.

The methodology focuses on two written texts: As Ilhas Desconhecidas [The Unknown Islands] (BRANDÃO, 1926) and Mau Tempo no Canal [Bad Weather in the Channel] (NEMÉSIO, 1944). These texts are used to select the elements which allow us to interpret “islands”. This research makes a critical analysis and coherent systematic study between the two texts, as well as constructing a framework of the environments characterizing “islands”. The analysis is made from the perspective of territory, consisting of earth and water, as synthesized in the concept of “terraquée” (MARROU, 2010).

From this study, we can conclude that the concept of “terraquée” contributes to the understanding of the peculiarities of islands and contains elements of its genesis and matrix.

**Keywords:** Time/Space Continuity, Covisibility, Island, Terraquée, Spacial Unit.

5.8 The Canary Islands in the medieval Western imagination. Sources and foundational texts

Authors:

Dulce M\(^1\) González Doreste, Eduardo Aznar Vallejo, Dolores Corbella Díaz, Francisca del Mar Plaza Picón, Maravillas Aguiar Aguilar, José Antonio González Marrero

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The Institute for Medieval and Renaissance Studies (IEMYR) of the University of La Laguna is a multidisciplinary research institute dedicated to promoting character of medieval and Renaissance studies. His long and established track record (it was created in 1989) has enabled grouping within it to researchers from different areas of knowledge with a strong background and recognized expertise in the field of medieval studies. The IEMYR ULL also offers a medieval postgraduate studies (Master's Degree in European Medieval Studies. The
Genesis of Europe, a cultural perspective) contemplating as its subject the totality of medieval events in the European geographical and cultural space. The aim is to convey a better understanding of the roots and configuration of modern Europe and a better understanding of the origins and historical development of the Canary Islands. Within this perspective, the authors of this proposal (specialists in French literature, medieval history, lexicology, Latin philology and Arabic philology) examine the different classical sources and mapping in order to show the passage of a mythical conception of insular space documented and empirical knowledge of a territory by the end of the Middle Ages is a must stopover for travelers and explorers who contributed to expand to the West the world's knowledge.

5.9 The Island as a Literary Template

Author:

Tricia Carr

1 PhD Student of Celtic Studies

Long before Thomas More coined the term 'utopia' for his fictitious island in 1516, utopianism was a long standing tradition in which the idyllic place was associated with the island. The image of the island is both international and multicultural, it is to be found in all literatures, as both a positive and negative symbol of the Utopia - for example, in Shakespeare's 'The Tempest' or in Roderick O'Flaherty's historical book Ogygia: seu Rerum Hibernicarum Chronologia & etc., (1685), in which he calls Ireland 'Ogygia, the same island Homer refers to when he states Odysseus has been held captive by Calypso for seven years. Thus, we see a direct link been the Greek and Irish traditions. The islands of Ireland have long been noted for their Homeric qualities and yet, Irish literature has been so under utilised in regards to the application of the critical apparatus of Utopian Studies, this paper aims to address this gap in scholarship.

The once Irish language speaking islands to the West of Ireland are steeped in a Gaelic heritage that is both utopian and dystopian as a result of the alienation of the inhabitants of such places as the Blasket Islands and the Aran Islands, as well as the mythical islands of St. Brendan, Hy Brasil and Cuil Stuifín. These otherworldly states depict symbolic nations for a young independent Ireland of 1922; the islanders spoke of both an idealistic and harsh life on the wild Atlantic sea. Their literature and folklore has both the echoes Greek myth and an aura of pre-history. It has provided us with first hand evidence of their existence, they are symbols of a united people and possibility of what the world on the mainland could have been, had we only remained in the past.

Keywords: Scottish Gaelic, Romanticism, Memory, Time
5.10 Short-term Experiment and Other Adventures in Desire; the island in contemporary art.

Authors:

Belinda Howden¹

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This paper addresses the phenomenon of hypothetical and actual island spaces as locations for artworks, exhibitions and cultural theory. More specifically, it attempts to uncover the drive behind this phenomenon. It is an attempt to look at the island’s curatorial and artistic function and to generate critical understanding around its presence in contemporary art.

This paper examines the synonymous relationship between islands and utopianism. Although these subjects have a long tradition, the interchangeability of islands and utopia as a phenomenon that persists today: Nicolas Bourriaud’s archipelagic theories of *Altermodern: The Tate Triennial* (2009), the enduring romanticism of mythic exploration in Anton Ginzburg’s *Hyperborea* (2011), Alex Hartley’s crowd-sourced constitution and borderless nation of *Nowhereisland* (2012), and the undivided parcel of land that forms the Rabbit Island artist residency (2011 – ongoing). The conflation of nissology and utopian studies reveals a dominant approach to both space and subject, where the Western tradition reflects a history of exercises in continental desire. From the mythic stages of utopian imagining and island dreaming to the horrors of island contact and utopian reality, from the unsolvable problems of regeneration to the unchartered territory beyond island departure and utopian return, this approach positions both island and utopia as a device for short-term experiment. Whilst this approach is generative, in its own right, it is also deeply conservative. It is founded in a long history of dominance, exploration, sovereignty, marginalisation and control, and therefore calls to be critically questioned.

*Keywords:* Contemporary art, curatorial practice, curating, islands, utopia
6 Islands as utopias

6.1 Utopic Nostalgia of an Island in the Nicobar Archipelago

Author:

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The paper is an account of author’s first visit to the Island of Chowra in the Nicobar archipelago in 1974, exactly forty-one years back. Then it was known as the ‘land of wizards’ and/or the ‘land of witchdoctors’, and was supposed to be one of the most inaccessible and inhospitable islands of the group. The other islanders of the Nicobar group believed that a Chowrian could change the direction of the wind and the waves. Therefore, they were so great navigators that they traded with far off islanders on their primitive type of canoes, even while the sea was turbulent. One did not offend a Chowrian for fear of any misfortune befalling upon him. After twenty-seven years, the author revisited the island in 2002. To see the changes in the life and culture of the people, he was as surprised as Rip Van Winkle. The paper is a graphic account of author’s first landing on Chowra one night at 2.00 a.m.; his interaction with the witchdoctors and the islanders there; his stay in the island for three and a half month, witnessing of pot and canoe making, and their traditional trade system, their open burial system, their garden making and roof thatching, and finally, a warm and emotional farewell extended by the Chowrians to the author along the beach near elpenum (public houses), just before boarding the canoe for Teresa Island after the completion of his anthropological fieldwork for his PhD.

Keywords: Nicobar, Chowra, Canoe, Witchdoctor, Archipelago
6.2 A 500th Anniversary Homage to the Island Utopia Idea

Authors:

Nanthawan Kaenkaew, Wiporn Kanjanakaroon, Kanang Kantamaturapoj, Alan Marshall, Thamakorn Siritorn & Somnas Yanna

*all authors are students or educators from Mahidol University and SuanSunundhaRajabaht University, Thailand

In celebration of the 500th anniversary of Thomas More's 'Island Utopia' idea, the futures of eight island cities from different geographical zones are outlined via graphic means with textual support. The eight cities are: Bastia (France), Dubai (United Arab Emirates), Macau (China), Malé (Maldives), RekohuTeWhanga (New Zealand), Taipei City (Taiwan), Singapore (Republic of Singapore), and Zakynthos (Greece). Their futures are presented in eco-utopian terms, whereby each city is projected to exist within peaceful socio-ecological harmony. In the vein of previous utopian imaginings, some explanation about how each city can get to this utopian status is offered, along with a description about the social, political and economic background that may be present then and there. The future of the chosen cities is presented in the form of ‘scenario art’, a new and developing methodology for conceptualizing the future of geographical areas and landscapes. This type of methodology is predicated on reviews and knowledge of both local environmental settings as well as the unique histories and cultures of the chosen island cities.

6.3 The Possible Futures of «Atoll-Incubated Humans» in the Work of Buckminster Fuller and Other Utopian Thinkers

Author:

Diane Morgan

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For Thomas More it was crucial that Utopia was an island, « well fortified so that a few defenders could beat off the attack of a strong force » (Utopia 1516). However, More also tells us that this elusive land « was not always an island ». Indeed it was formerly attached to the continent.

For the visionary designer, Buckminster Fuller, one-island models are, in any case, «optically illusory « unitary » system[s] » («Synergetics » 1975). They purport to be solid compressional...
entities for whom emanating « lines of tension » are optional. The reality is such that the « compression-island’s mass » is actually produced « by comprehensive continuous tension ». The fiction of independent, disconnected islands is, for Buckminster Fuller, indicative of « solid thinking ». It is adverse to what he calls « fluid geography », a way of thinking and acting in the world that prioritises dynamic lines of force over discrete points, directions over fixed places. The island is reconfigured in Buckminster Fuller’s work as an atoll, akin to a bicycle-wheel, wherein the hub is « islanded » from the compressional rim but held together by radiating tensional spokes.

Buckminster Fuller’s analysis of islands as atolls gives rise to a whole way of conceiving the planet as a tensegrity structure that has far-reaching cosmopolitical effects. Drawing on Buckminster Fuller’s vision for the future, and on contemporary concerns about ecology, migration and the sharing of natural resources, it is my intention to revisit the role that the island has played in the work of utopian thinkers such as Kant and Fourier.

**Keywords:** Atolls, Tensegrity, Cosmopolitics, Buckminster Fuller, Utopianism.

### 6.4 Utopia or dystopia? Fighting for the right to return to the occupied island of Diego Garcia

**Author:** Gitanjali Pyndiah

Uninhabited islands of the Indian Ocean have specific histories of Dutch, French and British colonisation, ‘illegal’ US occupation and militarisation, exploitation of African and Asian populations and have been strategically used as spaces of quarantine, refuge and exile. These histories have however, been silenced under narratives of utopic island paradises, in museums or tourist branding for instance and in the case of Mauritius, have been internalised as self-orientalist practices. This paper discusses how islands have been depicted as ideal locations in philosophy, literature and art and how these hypervisible depictions controversially contribute to the invisibility of historical exploitation of islands across oceans. In that sense the two definitions of utopia as ideal place and non-existent place are relevant here. The paper focuses on the specific island of Diego Garcia from the Chagos Archipelago, excised from Mauritius by British colonialists, in 1968, in violation of international law and UN resolutions, and then leased to the U.S. About two thousand Chagossians were exiled to Mauritius and Seychelles before Diego Garcia was militarised, partly in reaction to the cold war with Soviet Union. For the last forty years, a new discourse around trauma of exile and the right to return to the homeland has played a key role in forging international solidarity with the plight of exiled Chagossians. However this paper
argues that the island is again idealised in this discourse and that the preoccupation of return undermine the fundamental geo-political issue of US occupation and militarisation.

**Keywords:** Diego Garcia, utopia, dystopia, Mauritius, US occupation

### 6.5 The Island metaphor and Utopia in Theo Angelopoulos' films

**Author:**

Irini Stathi

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The present paper will explore the notion of nissiology and insularity in the films of Theo Angelopoulos. Within the traditional utopic literature, the island constitutes a structural metaphor which determines the *elsewhere*: a metaphor which underlines the bipolar components of the myth itself.

The films of Angelopoulos, has little to do with the island itself. There is not an island in any of the landscapes of the films of Angelopoulos and the only references to an island figures out in the title of the film *Voyage to Cythera* (1984) and an allusion to a trip to an island in the film *Eternity and a Day* (1998). However all references to exile islands and the political prisoners (*Travelling Players, Voyage to Cythera*) are sufficiently present in other films (Thiassos, Kynigoi), to establish a debate about the concept of the island as a metaphor of an ideal world or a topos of insulation, which brings up a relationship with the most famous utopian painting and literature. In Angelopoulos the bitter isolation in political, cultural, social and individual level, appears as a voyage into a mysterious land, which we are not able to see or to visit.

**Keywords:** Cinema, Utopia, Island, Exile, Angelopoulos
7 Island Identity: cultural anthropology

7.1 Adapting Living Community Challenge in the Greek Island village. Kioni, Ithaca, Greece

Author:

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A 5-year university investigation adapting Living Community Challenge principles to an Ithacan village community. The study and its accompanying community reports are intended as a template to guide island communities as they plan their sustainable futures.

Exactly what constitutes a sustainable island village is difficult to define. To be absolutely self-sustaining, a village would need to entirely close itself off from interaction with the rest of the island and world, and produce all of its food, energy, and materials locally. Such a construct is generally unworkable, and often viewed as undesirable.

Designing an approach to sustainable village development requires a planning philosophy that incorporates the knowledge that has been cultivated for centuries, along with new knowledge about sustainability that is emerging from distant communities. The design philosophy applied in this work refers to a set of ideals and principles that promote the integration of cultural tradition and sustainability principles to the future development of the village community. The approach incorporates the principles of sustainable design as it seeks to maximize the quality, authenticity, equity, and economy of the built environment while simultaneously eliminating negative impacts to the social and natural environment. It is an approach that emphasizes an equal respect for people, place, and environment and which views the development of communities as a process of understanding of how the carrying capacity of the village, itself, become and integral element in the planning process.

The planning approach seeks to maintain the spirit, beauty, and resilience of a historic village that nourished, sustained, and inspired its inhabitants for centuries. This study serves as a first step in helping guide Ithaca’s sustainable development.

Keywords: Sustainable Development, Living Community Challenge, University Service Learning.
7.2 Umu Atua: The paradoxes of the gifts and counter-gifts in religious festivities on Easter Island. Ethnographic approaches in the context of neoliberal capitalism

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Traditionally, economic anthropology has focused on how human societies are organized around complex systems of exchanges that are based on vast networks of material and symbolic reciprocal relations. In this context, islands have been the center for historical and ethnographic observations, aimed at understanding how certain traditional elements have remained permanent in face of socio-cultural transformation.

On Easter Island, as in the rest of Oceania and even some places in Asia, large volumes of resources such as food, objects, work, and people for hosting large feasts are mobilized. On Easter Island, these forms of generalized exchanges of food, work and people are organized around the so-called Umu Atua (earthoven for the gods).

This study aims to understand, from an ethnographic perspective, the coexistence of social and economic forms based on "offerings" that co-exist within a modern market economy. Initial results from our research, indicate that the introduction of a neoliberal economic system does not erase traditional forms of exchange, although it transforms and conditions it. During the Twentieth century the ritual expressions of the Umu Atua have grown considerably in the volumes of the offerings presented. Perhaps we are facing new forms of cultural resistance and identity construction, re-signified in the face of aglobalizing and homogenizing economy.

**Keywords:** Easter Island, gift giving, reciprocity, globalization, identity.
7.3 The Greek islands as tourist places. Liminality and Mobility through every day practices in the Southern Aegean Sea

Author:

Despoina Nazou

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In the light of social anthropology, the investigation of ‘Islands’ and ‘Islandness’ both within tourism and beyond, that has raised a number of questions on the conceptualization and interface of terms such as ‘island’, ‘boundary’, ‘place’, ‘change’, ‘myth’, ‘history’, ‘global’, ‘local’, ‘mobility’, ‘attachment’.

According to the above and through ethnographical data from Greek islands of the Southern Aegean Sea I shall attempt to show the ways in which the tourist economy redefines island societies, through the management of the cultural differences and flexible boundaries. Thus, islands are further understood as potential ambiguous entities in space and time, as ‘liminal’ spaces and structures which social inequalities and economic speculation: both as mythical paradises, as paradises of controversy and the abolishment of the state. As places in constant mobility but also firmly defined by collective memory and the lines of origin and kinship.

Furthermore I’ll try to show through the interpretation of the ethnographical data, that tourism has formed a new historical, social, political and economic context in which ‘islandness’ have been redefined through the analytical lens of social change and mobility processes. New cultural codes, conceptualizations of the exoticism and authenticity, the transformation of the rural landscape into ‘tourist destination’ or ‘product’ led to the use of the Aegean ‘islands’ both as symbols, as well as social realities.

In this context the subjects of tourist processes -tourists, residents, employees, entrepreneurs, political authorities- reshape the meaning of the ‘islandness’, by reshaping their own multiple identities through their everyday practices.

Keywords: Tourism, Greece, Islands, Aegean Sea.
7.4 The effects of historical memory of the Great Famine on Irish and island identity in County Kerry, Ireland

Author:

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This paper investigates the link between the historical memory of the Great Famine (1845-1852) and modern collective identity in County Kerry, Ireland, how memories of this period are transmitted and maintained from generation to generation, and how Ireland's islandness contributes to these memories and its identity.

There is currently much scholarship on the connection between memory and identity in Ireland, as well as a considerable body of existing research on Irish identity and memory in Northern Ireland. What is less clear, however, is how the issues of memory, history, and identity in Ireland are connected to its islandness. This paper frames the Great Famine within the context of island studies, examining how Ireland's islandness contributes both to the memory of the Great Famine, as well as the identity of its inhabitants. Colonialism is a theme that figures prominently in the history of many islands, Ireland included. It was colonialism that contributed to many of the social, political, and economical problems that Ireland faced for hundreds of years, including that of the Great Famine. The Great Famine also led to outmigration on an enormous scale, a phenomenon that is also witnessed on islands around the world, past and present. Therefore, by examining the Great Famine, its memory, and identity in the context of Ireland's islandness, I hope to add to the understanding of the effects of colonialism and outmigration as they relate to island studies. Approximately fifteen semi-structured interviews will be conducted with participants born and raised in County Kerry.

Keywords: County Kerry, Great Famine, identity, islandness, memory.
7.5 The Political Science of EU Norms: Aboriginal Subsistence Whaling in Greenland as a Political Battleground

Author:

Minori Takahashi¹

¹Hokkaido University, Slavic-Eurasian Research Center Research Fellow

Whaling in Greenland is often described as a part of its culture and tradition. Whaling has been an important aspect of the Thule Inuit people’s culture since about A.D. 900. Whale meat was a very important nutrient because it provided proteins, iron, fatty acids, etc. Whalebones and blubber were also considered valuable commodities. Moreover, the act of whaling occupied an important position in the cultural preferences of the Inuit/Kalaallit in Greenland. Therefore, it is often emphasized that whaling is a key aspect of the culture and tradition in Greenland, and “Aboriginal Subsistence Whaling” is defined as a cultural pursuit that is important for Greenland’s cultural, social, economic, religious and eating habits. This interpretation has been discussed extensively, and has significantly influenced the argument about whaling in Europe.

The main objective of this presentation is to examine the actual influence of whale protection regulation on the areas that conduct whaling and on the people who live there. Greenland enjoys the right to whale under the framework for aboriginal subsistence whaling officially regulated and managed by the International Whaling Commission. I shall conduct a survey in Qeqertarsuaq, Greenland and, based on that, offer an analysis of the current whaling situation, which is influenced by international politics and the movement for the protection of the environment.

Keywords: Aboriginal Subsistence Whaling, Qeqertarsuaq - Greenland, European Union.

7.6 A Fractured Archipelago: “Fortress” Mayotte, Comoros islands and Postcolonial Tensions in the Indian Ocean world

Author:

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The Comoros islands comprising of four main islands Grande Comore, Anjouan, Mohéli, and Mayotte, form an archipelago of volcanic islands situated off the south-east coast of Africa, to the east of Mozambique and north-west of Madagascar. Colonized by France in the 19th
century, Comoros finally became independent in 1975 but the residents of Mayotte, voted to break away from the new nation and remain under France. In 2011 the island of Mayotte finally became an official department of France. While Comoros, a “multi-insular state” (Taglioni, 2005) is one of the poorest countries in the world; Mayotte enjoys the financial benefits that come with EU (European Union) membership. This economic gulf has effectively destabilized the human geography of the region as “border” controls have arrested the natural mobilities of people between islands. Mayotte’s own detention centre is overflowing while almost 40 per cent of Mayotte’s population is undocumented. How do categories of “citizen” and “foreigner” operate in such fragile and fractured archipelagic configurations? How do islanders maintain a sense of is “land” within a seascape that has been transformed into a marine cemetery by drowning illegal migrants? In this paper, I will explore the cultural tensions arising from the “balkanization” of the Comoros islands through a reading of the works of Mahorese writer Nassur Attoumani and the late Comorian author, Salim Hatubou.

Keywords: Comoros Archipelago, Mayotte, Migration, Nassur Attoumani, Salim Hatubou.

7.7 Redefining Identities: the case of the young people of the island community of Cañodel Oro.

Authors:

Oriana Bruno¹, Leonardo Alba Mejia²

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The island community of Cañodel Oro, municipality of Tierra Bomba, smaller island belonging to Cartagena on the Colombian Caribbean, is inhabited by approximately 1800 people of African descent and is characterized by a territory that has natural, cultural and social assets, but at the same time, serious basic needs to be resolved. In this context, the San Jose school provides training for 510 students - aged between 6 and 18 years old, including primary and secondary levels - a fact that demonstrates the strong presence of young people and the important role of educational institution in training opportunities and defining a vision for the future.
The paper analyzes (using qualitative research techniques) how myths and legends, cultural consumption, local artistic expressions and oral tradition construct the identities of a group of students at a secondary level (13-18 years old). The dialogue between being afros, island students, part of a vulnerable community and being consumers of the flow of cultural content that they access through the Internet typical of the globalized world, generates a tension and a continuous process of redefining their sense of belonging, their identities and the imagination about their future.

The work is part of the research project: "Education for human development of young students on islands" developed by the Technological University of Bolivar which offers an educational strategy designed in three areas: science education, environment, and the arts in order to generate capacities and to motivate the islanders to access to higher education.

**Keywords:** Identity, Cañodel Oro, art, education, youth.

7.8  **Localism and Islandism: Resisting Neo-liberalism Through Food (An Examination of Lesvos and Hawai’i Island)**

**Author:**

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Localism refers to recent efforts and movements occurring across the globe towards local independent ownership as political and economic endeavor to create an alternative to the world of the large publicly traded corporations. Nowhere has the effort to create locally produced and consumed goods been more active than in the efforts around food policies and food systems. Critiques proclaim that local food movements are limited because they consider local food system as parochial or defensive approach to global sustainability, fundamentally organized by capitalist logic or defined by neo-liberal sensibilities. On the other hand many scholar and advocates while acknowledging that local and sustainable food practices are not necessarily revolutionary, argued that they have shifted the possible options for food production, locally embedded enterprise can consolidate political power in regions, and demonstrates the worldwide disenchantment with conventional or industrial scale food production. Although it dovetails quite neatly, the literature on localism or local food systems and islands studies have remained rather disconnected. Despite the decimation of subsistence agriculture for commodity crops and tourism development, local food systems have been the basis of island societies and continue to play a critical role on many islands. A study of island food practices, where food sources were geographically...
delimited for centuries, can inform current discussions of local and alternative food networks (AFN). I draw from research completed on Lesvos and Hawai‘i Island tracing the histories and contemporary conditions of food practices, production, and island sustainability to contribute to the literature on AFNs and island studies demonstrating the benefits of increased interaction between these literatures and to assist in better defining opportunities for islands resistance to neo-liberalism via local food systems.

**Keywords:** Lesvos, Hawai‘i Island, alternative food networks, localism, neo-liberalism.

### 7.9 Decolonial environmentalism in Puerto Rico: theoretical and experiential impressions

**Author:** Priya Parrotta Natarajan

This paper brings work that the author began at Oxford University’s School of Geography and the Environment into dialogue with anecdotal and professional encounters as a climate activist and ‘native’ of San Juan, Puerto Rico. At the center of the paper is a concept articulated by the author—‘decolonial environmentalism.’ The paper’s central concern is the divide that often exists between ‘Northern’ and ‘Southern’ environmentalists. It is composed of three parts. The first outlines the core premises of decolonial environmentalism. The second uses case studies from San Juan, PR to explore the complexities and potential limitations of ‘decolonial environmentalism’ in the context of islands. And the third discusses the various ways in which young people all over the world are joining hands in the service of a form of environmentalism that honors the peoples and ecosystems of small islands.

**Keywords:** climate change, environmentalism, globalization, colonialism, activist networks.

### 7.10 From colonization to utopian autochthony in Robinson Crusoe Island, Juan Fernandez Archipelago, Chile

**Author:** Guillermo Brinck

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In recent times, the people of Robinson Crusoe has build up an island politics based on idyllic views of their society and in the prospect of a perfect life. This process has been developed
in tandem with an identity discourse that produce a sense of nativeness in a population that is aware of their foreign origin. Naturalization of identity seems to be imposed by the islandness of Juan Fernandez as well as by the increasing of immigration and the consequent competition for land, resources, and state benefits between contemporary islanders and strange residents. In this course, both hazards as well as potentials of essentialism arise. Here we consider the manner in which Robinsonians has generated a social bond based on the image of the island as a natural treasure (the Lacanian agalma), as well as a subjectivation process that tends toward the closing of the subject, who is allegedly filled up in a world without failure. Paradoxically, this narcissistic configuration is supported by the gift-exchange ethics, which allows the islanders to establish a relationship with the Chilean State in terms of debt, where the former are the creditors and the latter the debtor, in regard of the sovereignty made by the islander since the beginning of the colony. Finally we argue about the contradiction between the narcissistic position of islanders and the logic of openness to the other that involves the gift, considering some possible ways of analysis.

**Keywords:** subjectivation, agalma, autochthony, utopia, narcissism.

### 7.11 Contested ways of connecting farmers to their product: Viniculture and viticulture in Samos – continuities, discontinuities and innovations

**Author:**

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Historically, Samos’ vineyards and its muscat wines were of critical importance for defining local identity and contributing, to a large extent, towards the island’s provision of economic possibilities and prospects. Sweet Samian wines, besides being designated as protected designation of origin, belong to the category of appellation d’ origine controlee. However, despite their wide recognition on grounds of quality, both within the country and abroad, many grape producers express their pessimism for the future and describe their position as precarious. Certainly, the issue of agriculture’s sustainability cannot be treated only by strict “economic” terms; as anthropologists have argued, the “economic” is simultaneously political, social and cultural. My presentation seeks to demonstrate how the rationalities and practices of Samian farmers, in conjunction with social and economic relations and structures, are being transformed or reconstituted, resulting in patterns which comprise a new multidimensional rural reality. Furthermore, this presentation focuses on new local actors who, having surpassed the system of controls associated with the wine cooperatives’ “discipline” and organization (through persistent and arduous efforts leading to the legal
overturn of the compulsory cooperative regime) signal—with their actions and strategies—a condition referred to as “new rurality”. These actors/innovators, who practice organic agriculture and embody the dual qualities of viniculturalist and viticulturalist, have introduced a new entrepreneurial ethos, along with different cultivating techniques and valuations of wine quality (in comparison with those of most grape growers who practice conventional viniculture).

**Keywords:** “new rurality”, protected designation of origin products, organic agriculture, cooperatives, tradition.

7.12 Delights of Prince Edward Island’s Culinary Culture: A Sense Of Place On Your Plate: Growing Our Food Economy One Dish At A Time

Author:

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Internationally, the business of cultural culinary events has grown to immense proportions and represents a significant contribution to the economy of Prince Edward Island (PEI) and serves to showcase generations of traditional growing and harvesting customs that celebrate island identity through world-renowned recognition of PEI’s exquisite food flavours, quality yields, and food safety. Culinary events are a critical medium for the Culinary Alliance to carry out their mission, and act as a catalyst to facilitate development of PEI’s key food industries. The Culinary Alliance meets the needs of PEI’s rural economic landscape with a major focus on food, namely lobster, potato, oyster and mussel sectors, by increasing product awareness, local consumption, and exports. Achievement of their vision is reached through worldwide industry exposure, culinary experiences, marketing campaigns, and the fostering of relationships between interdisciplinary industries, both locally and internationally. This paper assesses the impact of economic development on PEI through detailed analysis and comparison of historical and current data relating to event effectiveness, direct spending, sales, and exports. The study of the economic benefits and growth from the provincial government’s financial contribution, expectation of industry professionals, and key stakeholders are explored. Statistical data was collected from 2010 to 2014, and personal interviews with culinary experts, government employees, restaurant staff, and farmers are analyzed. Findings indicate that continued commitment from the provincial government supports growth of key international food markets through culinary extravaganzas, increased worldwide product exposure, and secured new markets, while
promoting growth in PEI’s aquaculture, agricultural and tourism sectors that serve to strengthen PEI’s vibrant brand identity.

**Keywords:** Culinary Festivals, Economic Development, Culinary Alliance, PEI Fall Flavours, Canada.

### 7.13 Island worlds and the transition to modernity: communication conditions in the northeast Aegean islands

**Author:**

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A method to follow and analyze the transition to modernity of the island worlds, is to look for the ways and the means which played a key role to contacts between these worlds and places where modernity was expanded. Concerning the European edges the passage from the preindustrial status to the modern way of life indicates the cultural transformation process that changed radically cultural environments and horizons as well. The peak of this development for the northeast Aegean islands can be framed between 1850 and 1950. The boom of the industrial revolution and the capitalistic expansion in European peripheries, including southeast regions, shaped new conditions for local economies and communities. Essentially, island populations were changed progressively from preindustrial communities to modern societies. The study of this transformation is linked to the study of the processes that took place within the Ottoman State up to 1912 and the Greek State during the Interwar.

According to Immanuel Wallerstein the modern world system creates dependent relationships between capitalistic core and periphery. These relations were particularly intense in the second half of the 19th century. Metropolitan economic networks based on the division of labor were extended in eastern Mediterranean, having major consequences in island economies and geographies. The Aegean space had been influenced radically from the growth of the international trade, the technological investments and the continuous migratory movements that crossed the Aegean Archipelagos connecting islands with regions and cities in Europe, Black Sea, Mediterranean coasts and the Middle East. Therefore, multilevel cultural and communication networks became mediators between local and global (social and cultural) entities, shaping a transnational framework where local island cultures were met with European cultures and cosmopolitanism as well.
This paper examines the conditions and the ways of cultural communication of the island populations in the northeast Aegean Sea with offshore places during the period 1850 to 1950, taking into consideration global and regional developments of the era.

**Keywords:** Aegean islands, modernity, communication, networks, culture.
8 Island identities

8.1 Islandness and the Formation of National Identities. The cases of Sardinia and Corsica

Author:

Marcel A. Farinelli

This paper is part of my PhD dissertation (2013), it deals with the role of Sardinia and Corsica in the formation of national(s) identity(ies) in Europe. Literature about nation-building conceives islands as a passive geographical space, in spite of this, islands offered cultural elements used to codify mainland national identities. Moreover, the same elements were (and are) used to define island identities opposite to continental.

Intellectuals from mainland Europe supposed that islandness had preserved elements as “authentic”, so Sardinia and Corsica played not a secondary role in the birth of Italy (1861) and in the codification of an Italian identity. E.g. the first national anthem was in Sardinian language and Corsica, considered part of Italy during Risorgimento, offered several elements to Italian intellectuals involved in Nationalism. But, Corsica had a role in the formation of French identity too, mostly by two figures: Pasquale Paoli and Napoleon. Moreover, Sardinia played a role in the formation of Catalan identity, by the presence of a linguistic minority (Alghero). Finally, quite the same features were used, in both cases, to build an insular identity, refusing the National identity shared with mainlanders.

Islandness was conceived as a condition that preserved elements corrupted in mainland, so it acts as Nationalist utopia. But, islandness works also as dystopia: it represents an underdeveloped and not well-nationalized part of the country, needing special politics.

Key words: Sardinia, Corsica, Nation-building, Identity, Nationalism.

8.2 Understanding ideational diffusion and island identity through a good governance paradigm

Author:

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The Conference will take place under the auspices of General Secretariat of the Aegean & Island Policy
This research paper seeks to problematize the World Bank’s good governance agenda, juxtaposing it to competing notions of good governance in the Caribbean small island territories of Sint Maarten, Curacao, Trinidad and Tobago. The paper presents authentic indications of a lack of critical questioning of normative notions in the Caribbean region—that has become increasingly pronounced since the wave of globalization. That said, the study adopts a qualitative approach in an effort to determine whether the foregoing can be attributed to pervasive patterns of ideational diffusion and norm formation in the named jurisdictions. The main contention throughout this research paper is that a universalistic approach to governance and by extension, dominant good governance agendas, insufficiently addresses island-specific realities and therefore need to be reconsidered. It is further suggested that a movement toward the understanding of good governance in a non-normative way, necessarily involves giving consideration to dynamics associated with history, culture and identity in the island context, that have customarily been overlooked in global agenda-setting.

**Keywords:** Caribbean, good governance, globalization, ideational diffusion, norm formation.

### 8.3 Writing and Identity in Three Generations of Chamorritas and Filipinas on Guam

**Author:** Tabitha Espina Velasco

Demographically, Chamorro people and Filipino people comprise the first and second largest populations in the Pacific island of Guam, respectively. Chamorros and Filipinos have a long, complex, and interwoven history, underscored by immigration, competition, and intermingling. While most research records this interaction broadly, this presentation investigates the relationship between these two populations by comparing the written lives of Chamorro and Filipina women, specifically. In 2010, Dr. Sharleen Santos-Bamba, an indigenous Chamorro scholar, conducted an ethnographic study tracing the literary lives of three generations of indigenous Chamorro women in modern Guam. In 2013, I utilized autoethnography as a third-generation Filipina on Guam to devise a framework for exploring the identity formation of three generations of Filipinas on Guam through their narratives. Given the similarities in methodology and research subjects of these two studies, a comparative analysis of my work with that of Dr. Santos-Bamba would be productive in beginning to understand the plurality of the female identity on Guam and how it is affected by the intersections of gender, ethnicity, and culture. By adopting a lens informed by Pacific
feminism, postcolonialism, narrative theory, and intergenerational research, I examine the ways that these diverse, yet interrelated women use writing and literacy for self-discovery, personal fulfillment, and political empowerment. The act of combining these two scholarly works is symbolic of the need for increased collaboration between Chamorritas and Filipinas in contemporary generations and, furthermore, it bravely confronts and counteracts historical perceptions of competition and animosity.

**Keywords:** Women, Guam, Generational research, Narrative

### 8.4 Understanding commoning. The making of liminal commons on a Greek Island

**Authors:**

Varvarousis Angelos\(^1\), Kallis Giorgos\(^2\), Zografos Christos\(^3\)

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While Greece as a whole suffers from a Great Depression, tourism grows everywhere in the Greek Archipelago. Against this trend some last islands still resist, ambivalently and partially, a one-way future of tourism and growth. They are not being substantially developed, not yet. Why and how? Is it simply that the arrival of development has delayed, a matter of location or coincidence? This paper explores the role of collective action and especially of “commoning” practices in securing a satisfactory standard of wellbeing as well as a moderate use of natural resources beyond the imperatives of growth and commercialization. As the discourse around the idea of commoning is becoming wider, more radical and even more urgent, substantial research is needed in order to understand better the potentiality, the limits and the contradictions of those bottom up practices which are signified as commoning processes to foster an emancipatory social project. Drawing on a long research of a process of commoning between diverse groups of people which vary from natives to seasonal residents and free campers in the Greek limitary island of Gavdos this paper suggests that the production of new commons cannot be based only on the affirmation of the common characteristics of a more or less homogeneous community but can be also based on the fluid dynamics which emerge when individuals and micro-communities come together to solve common practical problems. These commons are “liminal”, always in transition. They are not identity based and the glue that temporally holds the actors together is the inclusive co-existence and negotiation of the emerging differences.

**Keywords:** Commons, Commoning, Liminality, Identity.

Authors:

Vasilis S. Gavalas, Dimitrios Dimitriadis

It has been more than 40 years since the publication of the timeless work of E. Kolodny “La population des iles de la Grece : essai de geographie insulaire en Mediterranee orientale” (1974), Edisud, Aix-en-Provence. The French geographer had visited the Greek islands in the late 1960s, in an era that the population of the smallest and least accessible of them had been decreased due to migration towards the urban centers of mainland Greece in such an extent, that the 1971 census enumerated the fewest inhabitants in these islands in the history of the modern Greek State. The insular Greece was, according to Kolodny, “a sequence of unconnected components that revolve around the Athenian pole independently of each other”. The islands were more of qualitative entities than a united geographical space. Forty years later, we make use of the latest Greek census (2011) and we try to sketch the demographic and developmental features of the borderline islands of the Aegean and to foresee the perspectives of demographic evolution and economic development of these islands.

8.6 Common Destiny, Identity, and Social Rebalancing: Indigenous and Western Narratives in the Case of New Caledonia’s Development

Author:

Cadey Korson¹

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New Caledonia is an island territory located in the French South Pacific. Over the next decade inhabitants of this territory will decide whether to become fully sovereign, maintain their dependence on France, or enter into an independent-association relationship with another state. These choices are mediated by an ongoing struggle between the demographically strong indigenous population and their traditional forms of governance and the French-Caledonian population that holds a majority of the political power. This tension between indigenous traditional and globalized Western cultures plays out in the political, economic, and social policies of pro- and anti- independence parties. In particular, the term common destiny is frequently used to refer to the idea of ‘living’ together in a country versus ‘building’ a country together. The difference between these two visions of common destiny,
and the political development of the territory, is grounded in narratives of exclusion, historical victimization under colonialism, and inequality. Through a series of interviews with prominent New Caledonian politicians and secondary sources I have explored the relationship between common destiny, identity construction, and social rebalancing. Different notions of social rebalancing and the perpetuation of inequalities can be traced to rise of Western individualism and globalized culture, and the descent of traditional ways of life in New Caledonia. These trends have manifested in increasing calls for integrating traditional practices in national and local governance and new solutions for a growing migrant squatter population in the capital.

**Keywords:** Island governance, New Caledonia, Pacific, indigenous rights, politics of identity.

8.7 Education and Competition in Small Island States: Focus on the Early Years

**Author:** Anna Baldacchino

The world’s various small island states tend to have a high population density. It is argued that this empirical observation, enhanced by its widespread social perception, in turn contributes to a greater, keener sense of competition in most aspects of social, economic and professional life. These contextual variables instigate and encourage a strong belief in certification and educational achievement as the main vehicle of social mobility. There is also the aspect of neo-colonialism and the lingering British influence on the educational systems of some of these countries (including Malta) with a social class-tinged undervaluing of vocational training. The acute race for certification in order to secure what are understood as scarce, well-paying and prestigious jobs plays a part in this educational ‘rat race’ as well.

The literature about education in small states has a very recent history; however, there has so far been a systematic failure to engage with and integrate the field of early childhood education (ECE) – which includes infant child care, pre-school and kindergarten before the onset of formal primary school – into this important academic and policy debate. This presentation provides some initial insights of challenges that ECE in small islands states face, giving perspectives built largely on postcolonial studies as well as island and small island studies. It then refers to some of these concepts in relation to the former British colonies and now small island states of Malta and Barbados, where the author has some living and working experience.

**Keywords:** Early Childhood Education; Small Island States; Education; Post-colonialism.
8.8 The island and the islander

Author:

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This paper builds on earlier research about islands and islandness in the Baltic region, in which a number of recurrent features of islandness have been defined. As a part of a current research project, tourist brochures from Gotland printed 1975 - 2015 are analyzed, in order to determine when and how tropes of “the island” and “the islander” are played out, and in connection with which features of islandness. After an overview of the tropes and features found in the brochures, I will discuss changes over time in the image production, branding and marketing of Gotland and other islands. To conclude I will reflect over these changes as part of a broader turn in the cultural representations of islands in Northwest Europe, and what possible significance this may have for island life and culture.

Keywords: islandness, Gotland, Baltic region, cultural representations, image.

8.9 The Tuvalu DOT.TV Phenomenon, the wealth of isolated island nations, and the concept of Governpreneurship

Authors:

Godfrey Baldacchino, Colin S. Mellor

1 Professor of Sociology, University of Malta, Malta
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Tuvalu is the world’s smallest and most isolated independent developing archipelago. With a dispersed and minute population, its isolation from its neighbours, a scant natural resource base, and serious vulnerability to sea level rise, its prospects for economic development are limited. Tuvalu, however, enjoys a strong and resilient culture, a broadly egalitarian society, close family ties, strong democratic principles, and a record of prudent fiscal management.

Our paper explores this conundrum, with a special focus on the role of the Dot.tv phenomenon and the exercise of governpreneurship: a mix of inventiveness, ingenuity, happenstance, and entrepreneurial spirit adopted by governments—often with the guidance
of seasoned and trusted senior public servants—to tap or maximize revenues from sources of wealth derived from their sovereign status. In spite of criticism, we consider such as expressions of creative governance, a fuller exploitation of political geography for economic or strategic gain.

8.10 Visual impact assessment on insular landscape. Evidence from Sifnos island

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Insular landscapes are the result of the osmosis and complex interaction between natural, geographical and human factors. They are characterized both by specific qualities and their fragile character. Greek islands are attractive for various economic activities mainly connected with tourism. Such activities very often exceed the carrying capacity of the local socio-spatial systems, thus causing, in that way, significant degradation on islands natural and cultural heritage properties.

This paper attempts to quantify the visual impact that certain infrastructures and buildings have had on Sifnos island, a small island located in the south-west Cyclades. The quantification of the visual effects, is based in visibility analysis through GIS. The main point in view-shed analysis (the method adopted here) is the identification of those infrastructures and buildings that are considered as landscape disturbing factors. Namely, it concerns structures that (a) cause disruption in the landscape cohesion, (b) exceed the local scale, and (b) are incompatible with the island architectural character.

The analysis shows that zones with varying impact on the landscape can be identified. Disturbing investments should be directed towards areas of restricted visibility, thus minimizing landscape degradation. To that end the visual impact parameter needs to be incorporated in the local planning statutory requirements.

Keywords: visual impact, visibility analysis, view-shed analysis, insular landscape, Sifnos, Greece.
8.11 The essential islander: defining “islandness”

Author:

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¹University of Prince Edward Island

There have been numerous attempts at defining “islandness”: an “intangible” or “imponderable”; what Philip Conkling calls “a metaphysical sensation that is so hard to put into words;” or what writer Lisa Moore calls “that Newfoundland thing.” This paper attempts to get at the essence of islandness, to put words to those “imponderables.”

Islanders are fascinated by their islands: being bound by water yet connected via the crossing (in its many manifestations) contributes to a strong attachment to one’s island, where the essence of island living is intense and thus the “enfolded meanings and activities” inherent in island life are, as Tasmanian writer John Cameron says, “essentialised” as opposed to “simplified.”

Like having a fingerprint with its unique pattern of whorls and ridges, islanders identify who they are in relation to the rest of the world; their island is a ground of action on which they plant their feet.

And islanders draw identity from an intimacy with the island that has been cultivated through stories – stories that bind people to place, stories that strengthen in the retelling, and stories that are keenly felt in a bounded network of community and kinship.

This paper, then, explores islandness and island identity through conversations with islanders in Newfoundland, Tasmania, Prince Edward Island, and Canada’s Gulf Islands. It gauges the extent to which attachment to place and the prevalence of story play a role in islanders’ perceptions of self, individually and collectively, in an attempt to define islandness and island identity.

Keywords: islandness, identity, Newfoundland, Tasmania, Prince Edward Island.
8.12 Territorial dynamics and changes in the livelihoods of the inhabitants of the island of Tierra Bomba: the case of the village of Bocachica

Authors:

Tania Jiménez C.¹, Oriana Bruno²


Bocachica is located southwest of the island of Tierra Bomba in Cartagena de Indias, Colombia. Its inhabitants, mostly Afro-Colombians, suffer multiple problems associated with the lack of economic and social development. Despite having a beautiful natural landscape and architectural works of great historical and cultural value favorable for economic activity tourism, it is not a significant source of income for the community.

In this paper, we present the partial results of ongoing research that aims to develop a proposal for the sustainable development of the village of Bocachica. In order to know the assets that in particular historical moment, the inhabitants of the region had access and served them to decide about social dynamics, productive strategies for income generation and reach some achievements in their habits of subsistence, it was used a socio-anthropological analysis, and Livelihoods methodology.

The results show how the belief system of African descent; social relations between local inhabitants and abroad from Europe; military training and infrastructure for territorial defense; it caused changes in livelihoods and local culture over time. Local dynamics and processes of globalization have led to a process of identity linked to the desire to maintain continuity with the history manifested in traditional trades that evoke a past and the ways in which the community has adapted and appropriated the territory present.

Keywords: sustainable human development, rural, livelihoods, energy use, Bocachica.
8.13 Counter-Nesomania and the Island Imaginary: The Case of Guimaras Island

Author:

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In a 1991 interview, Caribbean poet Kamau Brathwaite remarked that he is interested in the “movement of the water backwards and forwards as a kind of cyclic ... motion, rather than linear” (44). This iconic statement provides an epistemic vocabulary to un-think the common notion that islands and archipelagoes are unmappable that had to gain validation from conquest and colonization. Elizabeth DeLoughrey maintains that "the island has functioned in various historical eras as a new Eden . . . a refreshment stop for long maritime journeys, and the contained space . . . where metropolitan homes are reconstructed" (2007). With the cultural and spatial turns in cultural analysis that imbricate a reevaluation and rethinking of island as refreshment, laboratories, and site for exoticism, several critical studies focused on the spatial and historical dimensions of "repeating island" (Rojo as reworked by DeLoughrey), several alternative histories derived from homegrown storytelling that incorporates narratives on tidal dialectics and ‘thinking with the archipelago’ (Stratford) have been practiced in the island of Guimaras. Located in the southern tip of Panay island in central Philippines, this presentation brings these homegrown storytelling practices that show the tension of inter-island connectivities between Iloilo and Guimaras, as well as emerging and emergent island/archipelagic narratives that map new(er) discursive cartographies.

Keywords: tidal dialectics, critical island studies, archipelagic turn, storytelling, postcolonialism, Philippines.

8.14 Nissology as a tribute to islands studies: just a state of mind or a scientific challenge?

Author:

Christian Depraetere

Islands studies (IS) as any kind of "studies" (black, gender, minorities ...) tends to introduce a bias in the approach of its specific objects of analysis: to take the rhetoric question of Grant McCall "should we feel sorry about islands ... [and islandness, and islanders]?"

IS assume to be a pluri-thematic, multi-geographic and trans-scalar so to say scientific platform and their practitioners are prone to be regarded as chorographer of the genus loci.
of tiny pieces of land. As a consequence, conferences dedicated to it are for the best considered as a pleasant potluck for the Beotians whom knowledge about islands is limited. For the worst, those non initiated scientists concludes that there is a lack of a scientific corpus behind IS and some paradigmatic concepts such as islandness.

Nissology (from Greek νήσος for island) as the science of islands (plural) envisages to contribute to the betterment of IS practices by providing more scientific concepts enable to bind together the outstanding experimental valueness of islands for social sciences (it comes without saying for biology). First of all, it can be defined as a "state of mind" advocating for avoiding to make each island as unique but instead to look for its genericity to support comparative studies. The second endeavour supposes a more nomothetic outlook toward island and islandness. The last fold is a corollary of the two previous and can be defined as a road book of methodological good practices. These methods can be bases on enhanced geographic paradigms such as mainland/rimland or derived from appropriate analytical approaches coming from other branches of scientific dealing with spatial processes such as biology, physics or mathematics.

To conclude, islands are still striving to be reckoned as a proper scientific object even amongst some IS practitioners who study them incidentally. While the specific scientific legitimacy of islands remains under question amongst the scientific community, IS in conjunction with nissology could greatly makes profit of the intrinsic and unanimous experimental importance of small and closed "fragments" (alias simple system) compared to the large and opened one (alias complex system). To a certain extent, nissology could be stated as an ad hoc paradigmatic example of "fragmentology" focusing on the dynamic processes on isolates.

8.15  Strophades Islands: from U-topia to Integration
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² University of the Aegean, Co-Author

This paper attempts to meet the implementation challenges of those management initiatives been formulated upon the presence of tiny and almost inhabited islands. Such approaches are gathering momentum when it comes to the type of islands such as Strophades. These islands, characterized by a large scale of isolation should be examined as a representative case study. The purpose of this paper is to rule out the possibility of
stakeholder collaboration and identify the distinctions among management roles and responsibilities on the way to promote heritage tourism development. Additionally, it points out the interdependence of heritage conservation and tourism relationship even in far remote areas.

Strophades is a group of two small islands located in the Ionian Sea on the far west side of Greece. The group is consisted of two islands, known by the names of Stamphani the bigger, and Arpia the smaller. The group is part of the National Marine Park of Zakynthos due to its natural importance; it serves as a shelter since many specimens of migratory birds visit the islands every year founding a resting place during their long passage. Moreover, Strophades forms a place combining both natural and cultural concern. Despite their size and their location, they have been mentioned in a number of ancient sources, first recorded in Virgil’s Aenead. Stamphani hosts a unique piece of cultural importance, yet being in danger. A monastery dated back to byzantine times, emblematic for pilgrims but mostly for the people of Zakynthos, needs immediate renovation. It is designated as an historical monument standing out for its uncommon architectural style, built in the shape of a fortress.

**Keywords:** Strofades Islands, Accessibility, Integrated heritage management, Biodiversity, Heritage Tourism.
9 Migration

9.1 Youth of Rapanui (Easter Island) and nissological topophilia: Why young Rapanui always leave their island, but come back.

Author:

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At any time, about a quarter of Rapanui (Easter Islanders) are away from their island, travelling for pleasure, living with spouses in several European and Pacific countries, working in their professions or studying to achieve a qualification. Most return from time to time for the annual "Tapati Rapanui", or Easter Island Week, to renew their identity and kin relations. The majority eventually return to Rapanui, even if they were not born there: why? The paper explores John Betjeman's concept of "Topophilia" or love of place, connected to ontological security. "Youth always may go away, but they surely will return one day", a couplet might run.

9.2 “Returning home”: identifying the appeal of island life for young island students

Author:

Rosie Alexander

The outmigration of young people from remote and island communities to pursue education is well-documented (King and Connell, 1999; Stockdale, 2002; Corbett, 2008). Often presumed to be a permanent or semi-permanent move, the outmigration of young people can be associated with a ‘brain drain’ from island communities, and with ageing island populations. However, looking at a case study of higher education students from the British islands of Orkney and Shetland we find that the reality of migration in these islands is more complex. In fact statistics show that six months after graduation approximately one third are living in the islands, demonstrating that a significant proportion choose to stay in or return to their islands. This paper will present findings from an ongoing research project tracking the pathways of twenty three graduates from the islands of Orkney and Shetland to examine what motivates some graduates to return to or stay in their island communities.

Keywords: Orkney, Shetland, Graduate, Migration.
9.3 A database for migration in the North-Eastern Greek islands

Authors:

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This paper presents the results of a project related to the collection and presentation of quantitative and qualitative data regarding migration issues in the North-eastern islands in Greece, leading eventually to the creation of a comprehensive data base related to population movements in this area. It describes the process of collecting data for various forms of migration, the spatial and temporal barriers and difficulties that emerged, and the main conclusions regarding particularly immigration and asylum inferred and drawn from the collected data. Our results indicate that immigration and asylum are salient issues for the North-eastern islands and in particular for Lesvos for the last years and they have close relations with migration movements and border policies in Greece and the EU since the 1990s.

This work has been funded by POLY\_NISIOTIKOTITA- MULTI\_INSULARITY, Action 6, University of the Aegean

**Keywords:** migration, asylum, Lesvos, data.

9.4 Lesvos island: A Hot Spot on the Eastern borders of Greece and the EU

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Lesvos is currently presented as a “hot spot” on the eastern borders of Greece and importantly the EU in the media. This results on the identification of Lesvos as a important border site between Europe and the rest of the world. This may result in focusing on just particular aspects of the phenomenon and policies, thus narrowing the vantage point and distracting the discourse and praxis from other possibly more important or salient issues. We explore the above perception and construction of a place as a border based on our
recent theoretical and empirical ongoing research that focuses on aspects of migration connected with different movements and policies before and after the summer of 2015 in Greece with particular attention to Lesvos. We examine different dimensions of the process of realization of borders and border crossings from the political and social point of view. Our main thesis is that the patterns of this movement of people and migration policies are facets of a wider and on a much larger spatial ordering, currently evolving process of border redesign and reallocation within Europe and the EU.

Keywords: borders, migration, refugees, Lesvos.
10 Integrated Management: Biodiversity of islands

10.1 Islands and evolutionary biology of talitrids (Crustacea, Amphipoda)

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The history of biogeography research is focused on the islands, particularly in oceanic archipelagos, and the roles they played in the evolutionary biology of species. The importance of long distance dispersal has been found in many studies, not just for the effects of lineage diversification but also for new ecological opportunities. In the present work, we analyze talitrid amphipods because these organisms are ideal candidates to investigate dispersal mechanisms, colonization aspects, and speciation events. These crustaceans live in semi-terrestrial (marine supralittoral, e.g. sandy beaches) and terrestrial habitats (e.g. freshwater-soaked leaf litter), have no planktonic larval stage and are limited in active dispersal (i.e. tens of meters per day). However, the talitrid amphipods have adapted to other means of dispersal, enabling them to increase their habitat colonization capabilities. The supralittoral talitrids can disperse, among other means, on rafting materials moved by surface marine currents. Although the majority of species within the Talitridae family show a wide and disjunctive geographic distribution, a large number of species are endemic to a single island or to restricted areas. We present and discuss case studies largely related to talitrid species from archipelagos and islands of the Mediterranean area and North East Atlantic region with well-known geological history. This study expands our knowledge of research in the biogeography field, at the same time it allows us to understand the contemporary or potential transformations of biodiversity.

Keywords: evolutionary biology, semi-terrestrial crustaceans, oceanic archipelagos, dispersal, island geological history
10.2 Kalymnos, the island which made history in the sponge fishery. Data on the identification of *Spongia officinalis officinalis* & *Hippospongia communis*, the most common species in Aegean Sea

Authors:

Castritsi-Catharios J., Zouganelis G. D., Berillis P., Pandelis G., Ekonomou G. & Kefalas E.

Kalymnos island is the last bulwark of the sponge fishery. The economy of the island was based almost exclusively on the harvesting and treatment of commercial species of sponges, mainly the species *Spongia officinalis officinalis* (Linnaeus 1759) & *Hippospongia communis* (Lamark,1813). Since 1522 by the Sultan Suleiman the Magnificent; the island had its own system of local government in return for taxes paid to the Turks. Thanks to sponges fishing, Kalymnos experienced unprecedented conditions of democratic self – government and growth in the area of commerce, arts and social welfare. The Second War destroyed the sponge fishing fleet which was again destroyed through the “sponges disease” which appeared in October 1986. Nowadays, the populations recover even in swallow waters (5-8 m) where the species *Spongia officinalis officinalis* & *Hippospongia communis* are mainly found. In this paper we also describe the traditional method of sponges; whitening. Our main effort was focused on the identification of the two species using both classical and molecular methods. For the classical method scanning electron microscope (S.E.M.) was used, in order to identify the characteristic structure of the mesh of each sponge. Small parts of dry sponges were mounted on stubs with a double sided conductive tape, coated with a thin layer of gold and examined under a Cambridge Stereoscan 240 S.E.M. at 15 KV. In addition we have applied molecular wildlife forensic methods to distinguish between the two species. This was achieved by characterizing the cytochrome oxidase I region (COI) of mitochondrial DNA and identifying sequences with bioinformatics programs.

The study was co-financed by the EU - European Regional Development Fund and the Greece within the frame of the NSRF 2007-2013 Program for development.

**Keywords:** Bath sponges, biometry, electron microscope, mitochondrial DNA, identification.
10.3 Assessment on priority natural habitat type 2250 “Coastal dunes with Juniperus spp.” conservation status of Alyko, Naxos

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“Coastal dunes with Juniperus spp.” as a priority habitat (code 2250) of the Habitats Directive (92/43 EEC), are unique and valuable ecosystems. They are extremely variable because of various abiotic conditions that occur and they are characterized by a high environmental heterogeneity and a complex coast-to-inland environmental gradient. Due to the fact that the surrounding area functions as a barrier they are also considered as habitat islands.

There are seventeen priority habitats (code 2250) in the “Natura 2000” network throughout Greece and one of the largest is the Alyko Naxos Cedar Forest. Its area covers around 800000m² and it is a part of the SCI: GR4220014 “KENTRIKI KAI NOTIA NAXOS: ZAS KAI VIGLA EOS MAVROVOUNI KAI THALASSIA ZONI (ORMOS KARADES - ORMOS MOUTSOUNAS)”.

In this study, spatial and temporal alteration of the state of this particular habitat is estimated. Initially, the current ecological status is investigated through plant sampling that is carried out in order to recognize and register the species. Moreover, line transect methods is used for identifying and recording bird species. Additionally, a GeoEYE high accuracy (0.51m) satellite image (2009) is used to estimate vegetation indices, in order to geolocate the cedar forest (image classification) among the rest of the woody vegetation of the area. A Hellenic Military Geographic Service (HMGS) air photo dated back from 1945, is also used as a reference for estimating the cedar forest area changes.

The results of this survey will contribute in developing a monitoring tool for the protection, management and conservation of this priority habitat.

Keywords: Juniperusspp, plant diversity, bird diversity, vegetation indices
10.4 A century of change of coastal sedimentary landscapes of Canary Islands (Spain) – change, processes, and driving forces

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Global understanding of landscape dynamics constitutes a prime topic in land change science. Therefore, this approach should be urgently applied to rapidly changing and heavily transformed environments, such as coastal areas. Our objective has been to study the landscape changes over three coastal sedimentary landscapes of Canary Islands (Spain), using a comparative approach. The three landscapes have been studied by examining the changes of the main land covers, identifying the related driving forces, actors and institutions, analyzing their relationships and interpreting each case regarding the dominant development model. The three landscapes analyzed present very different change processes in regards to population density, land cover changes, and the role of major land change processes, i.e. resource extraction, urbanization, tourism, and nature protection. We found that socioeconomic, political and natural/spatial driving force types are most important, and the local level to be dominant in all three cases. Findings of this research can be valid to interpret other similar landscapes in the world and we consider such a comparative approach to be especially suitable and inspiring in environments with some common characteristics, such as small islands.

**Keywords:** land change science, driving forces, coastal sedimentary landscapes, Canary Islands.
11 Integrated Management: Climate change and islands

11.1 From the Lexicon of Risk to the Social Response to Change in the Maldives

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The recent environmental policy of the Maldives is an illustrative example of the political role played in SIDS by the “Lexicon of risk”: mitigation, adaptation, adjustments, resilience are the key words of the national political agenda. Furthermore, during the presidency of Mohameed Nasheed (2008-2012) the country has become a symbol of the vulnerability to climate change. After the COP 2009 the Maldives have gone on stage in the international debate, playing a leading role within the Small Island Developing States Network. This "vulnerability" is deeply related to a main geographical feature: the high dispersion of land mass and population, at the same time it is linked to the global discourse on insularity and on the geography of SIDS. This narrative has been reinforced by a massive plethora of official reports and documents published by international agencies adopting "geographical", "socio-economical" and "environmental" vulnerabilities as interpretative frameworks to describe socio-environmental relationship in the Maldives. According to this trend, mitigation and adaptation to climate change have been converted into keywords of the national political agenda and the supra-regional scale has been used as the prevailing spatial horizon. In this contribute, presenting of three projects carried out in Faaf-Magoodhoo, we stress the importance, in archipelagic states like the Maldives, of using the local scale to read the environmental policies. Cause it helps us to understand how socio-environmental relationship can be described only by enriching the “Lexicon of Risk” and by working on the social response to change more than to risk.

Keywords: Maldives, mitigation, adaptation, resilience, vulnerability
11.2 Modern methodological tools for studying climate change impacts in a protected area (Gerakas nesting beach, Zakynthos island, Greece)

Authors:

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Low-lying coastal areas flooding and enhanced coastal erosion are main projected impacts of long- and short-term sea-level rise (SLR) due to climate change. The scope of this contribution is to demonstrate the use of a combination of field work tools and software packages that were employed to study the effect of climate change in the Caretta caretta nesting beach of Gerakas in the National Marine Park of Zakynthos. Detailed RTK-GPS coastal topography, shallow bathymetry and morphology with sonar systems, hydrodynamic measurements with high frequency wave/current meters, ADCP current meters, onshore and inshore sediment sampling and meteorological station data, all provided the necessary input parameters in coastal hydrodynamic/sediment transport/morhodynamic models as well as in analytical and numerical 1-D morphodynamic model ensembles of different complexity, so as to give projections of the anticipated SLR. For the short term SLR the model results were successfully compared with a fully-automated coastal-video monitoring system focusing on shoreline dynamics and coastal inundation, which can also be used in quantifying the effect of coastal squeeze on nesting activity. A terrestrial laser scanner was also used for the beach fine-scale topography and the study of a coastal cliff at the southern side of Gerakas beach, which shows significant evidence of erosion. The detailed mapping of the cliff morphological-geometrical characteristics in two successive periods allowed for the calculation of the transported sediment volume, for future comparative studies of the long-term mean erosion rate, for the possible effects on the sensitive beach ecosystem and the potential measures for its protection.

Keywords: climate change, protected areas, modelling, morphology, hydrodynamics
11.3 Agroforestry as an adaptation strategy for environmental migrants in Yap island

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For the displaced vulnerable populations living in environmentally fragile locations on Yap Island, land-based action is one of the vital adaptation pathways for climate resilience and food security. Adaptation measures driven by the land using simple and affordable traditional methods can stop, and even reverse land degradation. Agroforestry is a climate-smart production system that sustainably diversifies environmental, ecological and socioeconomic benefits of subsistence farmers, and is therefore considered more resilient than monocropping to increasing effect of changing weather patterns. It holds great potential for coping with climate change by addressing food security and livelihood needs of vulnerable communities. The diversity benefits of agroforestry based food production system increases atoll communities’resilience during environmental extremes and climate variability. Drawing on a case study from Yap Island, this paper examines the versatile role of mosaic restoration efforts in regreening a degraded landscape that brings fresh promise to a group of environmental migrants in Yap Island.

Keywords: Agroforestry, Environmental migrants, Adaptation, Yap Island

11.4 Morchella spp, distribution, ecology and evolutionary history in Mediterranean islands

Author:

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Mediterranean islands constitute a well-known hot spot of animal and plant biodiversity but species richness of the fungal kingdom in these areas is, however, far less described. Because fungiiare essential to many aspects of forest ecosystems, understanding their distribution, ecology and evolutionary history in Mediterranean islands is a crucial challenge, especially in the current context of global changes. Also, most of these organisms have impacted human societies in various ways, ranging from food and drug resources to, more
recently, economic development of territories. Our project is focused on the iconic genus *Morchella*, highly prized worldwide as gourmets’ mushrooms and highly diversified in the Mediterranean area. In Corsica, the post-fire species *M. eximia* represents an important income for local populations, despite the fact that factors that trigger its abundant fruiting after Laricio pine fires remain totally elusive. Our specific aims are: firstly, to reveal the taxonomic diversity of the genus in six geographically and ecologically contrasted Mediterranean islands—highlighting endemism, through an integrative morphogenetic species recognition approach. Secondly, we will use genetic tools and stable carbon isotopes to shed light on, respectively, the reproductive behavior (sexual vs asexual) and population dynamics of *M. eximia*, and its trophic modes in relation to neighboring plants and fire-related soil parameters. We believe the outcome of these studies will contribute at upgrading lands and forests of limited economic value, whether as the direct result of higher production rates or through indirect incomes from a developing myco-tourism. A review of the present state of knowledge and some preliminary results will be presented.

**Keywords:** Mediterranean islands, fungal biodiversity, edible mushroom, *Morchella eximia*, myco-tourism.
12 Integrated Management: Marine and Freshwater of Islands

12.1 Evaluation of beach erosion risk of the Aegean Archipelago islands

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The purpose of the paper is to provide a rapid assessment tool of beach erosion risk under anticipated sea-level rise (SLR) scenarios. An Aegean Island Beach Inventory (AIBI) of the spatial and other characteristics (length, width, orientation, sediment type, coastal defences, etc) of 3234 beaches of the 58 larger Aegean islands (including Crete) has been assembled using freely available remote-sensing images and web-GIS tools. 6 cross-shore (1-D) analytical (Bruun, Edelman, Dean) and numerical (SBEACH, Leont’yev, XBeach) morphodynamic models have been used to form suitable model ensembles to simulate long- and short-term beach retreats due to mean SLR changes and storm surges, respectively. The results of the two ensembles were compared to the beach width maxima recorded in the AIBI. The analysis showed that both long- and short-term SLR will have considerable impacts, since ~89% of all beaches will retreat by >50% of their maximum width under a 0.5m storm surge, whereas ~64% of the beaches are expected to be completely inundated. In the case of a 0.82m long-term SLR, ~96% will retreat by >50% of their maximum width, whilst ~77% will be totally drowned as projected by the analytical model ensemble. These estimations may be conservative, as other significant beach erosion factors (e.g. decreasing beach sediment supply) have not been considered. The results designate (a) the use of model ensembles for the quick evaluation of beach erosion and (b) the need for urgent coastal management planning, since the anticipated SLR is expected to affect, mainly, the island “pocket” beaches.

Keywords: Aegean Sea islands, coastal erosion, sea-level rise, model ensembles, coastal management.
12.2 Ecological Network and Graph Theory Analysis for the Preservation of Biodiversity and Sustainable Fisheries

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In the present study, ecological network analysis and graph theory were used in order to detect fish habitat trends and co-occurrences among different island regions of the Cyclades Archipelago, Central Aegean Sea.

More specifically fish counts measured in 295 sampling sites in 31 islands were used to construct one network for each island. The observed species form the network nodes and the strength of the interaction between nodes is defined by the number of co-occurrences of the related species in the samples of each island.

A number of metrics can then be estimated based on either the power of the species coexistence (e.g. degree, betweenness, and closeness) or the network structure (e.g. average degree, density). The species relations within each network and between networks can form the basis for the investigation of the habitat characteristics of different species groups and therefore of the mechanisms formulating different conservation systems.

These results may often assist in the selection of marine protected areas for the preservation of biological diversity and sustainable fisheries.

12.3 Do insular streams have different macroinvertebrate community from mainland streams? : The case of Greek Islands (Eastern Mediterranean)

Authors:
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Island stream ecosystems, in contrast to continental ones, have been poorly studied in the Mediterranean Basin. However, differences between islands’ freshwater systems and
continental lotic systems were found, e.g. reduced abundances of macroinvertebrates in islands.

Herein, we investigate if there are statistically significant differences between macroinvertebrate assemblages in island and mainland streams in Greece. In order to explore the above hypothesis, stream basins with similar eco-geographical characteristics (X, Y, elevation, catchment area and theoretical surface flow), named twin basins, have been compared. For this purpose, the data set from the National Monitoring Program for rivers in Greece (HCMR, 2012-2015) was used.

A total of 17 stream basins in 8 islands were compared with 51 stream basins in mainland. PCA analysis resulted that, each island basin corresponds to three (twin) mainland basins. The null hypothesis was rejected, i.e., there were no statistically significant differences between island’s and mainland’s macroinvertebrate fauna. However, two island basins, one in Corfu and one in Crete, provided an exception, as macroinvertebrate community varied markedly between them and their twin mainland basins (ANOSIM R= 0.556 and 0.778, respectively). It is worth noting that families with small dispersal ability (Asellidae, Gammaridae and some Gastropoda) were absent from all island streams, in contrast to continental ones.

To further explore potential differences between island and mainland streams based on macroinvertebrates, additional research considering species level is required. The results of related research may contribute to our knowledge of islands’ stream biodiversity, and promote nature conservation initiatives.

**Keywords:** Macroinvertebrates, biodiversity, island, mainland, Mediterranean.

### 12.4 Diachronic use and exploitation policies of the environmental resources in the Chian Archipelago (Xios, Psara, Oenussae) of the Aegean Sea.

**Authors:**

Mixail I. Pippidis

Ing. Geologist, candidate NTUA PhD in hydrogeology

The use of the geoenvironmental (and the dependent of it bioenvironment) resources is the main activity of the diachronic human presence on the islands in the Chian Archipelago. The sufficient size of the Xios island, the many and diverse geological features (which are responsible for a landscape rich in form and highly differentiated in micro environments), the quite recent separation by the sea from the Asia Minor coast, the continuous and
numerous human presence on the islands (from the protohistoric times until our days) which is sufficiently registered as history or residuals of activities, and the use of the Bayesian reasoning for the interpretation of all the above wealth of information, allow the detection of the surprisingly uninterrupted in time and persistent in conception, core ideas behind the ever changing (in concordance, acceptance and sometimes the local invention of new techniques) practices. Those ideas shape the main features of the Chian (Xian) insularity in thinking, social mentality, relation with the others and the environment, ingineering. The continuity of the successfully through the ages -intensive- Xian mentality (which in the last years are in accelerating retreat in front of the ongoing continental -extensive- practice) has to be ensured, because through the time had proved his capacity of creating a more productive and human friendly environment. The understanding of the Xian meaning of insularity can be useful in the detection, description and definition of the insularity main features.

Keywords: Chios, island environment, insularity, intensive practice, Bayes reasoning.

12.5 Water Supply and Demand Forecasting in Santa Cruz Island: Galápagos Archipelago

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In many tropical islands around the world, tourism is an important economic driver, but has contributed to severe environmental degradation. Santa Cruz Island, the most inhabited of the Galapagos Islands, is not the exception since it has been threatened by the noteworthy increase in tourism, and consequently local population growth over the last decades. As a result of this, the current water supply system cannot sustain demand growth rates, confronting the population with serious water supply issues. Due to the volcanic origin of the island, there is no surface-freshwater, therefore the water supplied is non-treated ground-brackish water and supply service is intermittent. The problem of water scarcity is further amplified by little initiative towards conservation of water, combined with a lack of technical, management and financial capacity of the municipal authorities.

Even though tourism only shows to be increasing, tangible solutions to address the urban water problems seem to be a very distant option. In order to address this issue, strategic
planning of the water supply infrastructure is needed. Therefore, the urban water system model WaterMet\textsuperscript{2} was used by our team as a tool to forecast water demand and supply on the island. The forecasting was performed on a 30 years’ time horizon, calculating the deficit of water supply with the current infrastructure and situation (baseline scenario). Several intervention strategies were proposed with the aim of solving the existing water crisis. Furthermore, these proposed improvement measures were assessed using various key performance indicators (KPIs), such as cost, energy requirements and water demand coverage. The results point to a centralized water supply system based on desalination, combined with leakage reduction and water meter installation, as a suitable solution. The municipality of Santa Cruz, as well as other relevant institutions, have contributed to this research and have learned from preliminary results. Conclusions and recommendations from this prognosis may be helpful and serve as a basis for finding water crisis’ solutions in other similar islands.

**Key words:** water demand, water demand forecasting, key performance indicators, tropical island
13 Integrated Management: Marine of islands

13.1 Fishing for human perceptions in coastal and island marine resource use systems

Authors:

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Human perceptions, decision-making and (pro-) environmental behaviour are closely connected. This paper reviews our recent Research Topic in ‘Frontiers in Marine Science’, which focuses on linking perceptions and behaviour for sustainable coastal and island marine resource use systems.

These (large and small-scale) systems often support the livelihood of a large part of the local population, and they function in highly complex social and ecological environments, which are culturally embedded, economically interest-led and politically biased. Management processes therefore have to integrate multiple perspectives as well as perception-driven standpoints on the individual as well as the decision-makers’ levels.

For this Research Topic, we therefore welcomed submissions from all disciplines, presenting preferably inter- and transdisciplinary approaches. Contributors were free to explore examples from the individual resource-user level (e.g. reasons for (non-)adhering to MPA regulations, tourists’ preferences for dive sites, fishers’ choices in gear use), to the decision-making level (e.g. perceived and factual responsibilities in management, local expectations towards management measures). The contributions could have a more theoretical approach, or rely on applied and empirical (e.g. comparative) case studies, using both qualitative and quantitative methods, from coastal and island marine resource use systems from around the world.

By fishing for a diversity of inspiring and comprehensive contributions on the link between perceptions and behaviour, this review will critically enlighten the discourse and applicability of such research for finding sustainable, locally identified, anchored and integrated marine resource use pathways.

Keywords: human perceptions, individual behaviour, marine resources, governance.
13.2 The use of Unmanned Aerial Systems for Seagrass mapping

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Seagrass meadows play an important role in ecosystems by stabilizing sediment and improving water clarity, which enhances seagrass growing conditions. It is high on priority of EU legislation to map and protect them. Greece very recently announced the mapping of seagrass meadows in very coarse resolution (1km) mainly to compromise with EU legislation. This is an important step forward, however it does not face risk of seagrass and associated species extinction. According to our understanding there is a need of: i) assessing seagrass present state, biodiversity, spatial pattern, and dynamics at appropriate spatial and temporal scales, ii) understanding processes of degradation, iii) identifying causes of degradation, and iv) monitoring programs to manage, restore, or create seagrass meadows. Remote sensing and mapping techniques are required for regional scale monitoring. Taking into account the 214,000 km² of Aegean Sea and 16,000 km of Greek coastline aerial and satellite image processing is required for producing maps with acceptable accuracy, repeatability, versatility, and information content. An expertise on satellite remote sensing processing and UAV mapping has been developed at University of the Aegean/Departments of Marine Studies and Geography. Our methodologies use state of the art techniques (semi-empirical classification methods, water correction techniques, object based analysis and Unmanned Aerial Systems -UAS) for accurately interpret sea grass meadows in several spatial resolutions. In the present paper a methodology that extracts in situ measurements in the form of concrete vectors-objects describing the areas covered by seagrass is presented. The proposed methodology combines object based image analysis (OBIA) and fuzzy classification. Objects are created by grouping pixels with same spectral characteristic. Classification classes include sub-bottom composition e.g. seagrass, soft bottom and hard bottom. The methodology examines the capabilities of the integration of UAV data acquisition, GIS and remote sensing. Method applied in 7 areas along Lesvos island with different characteristics. Results showed that UAV's data revealed the sub-bottom complexity in large shallow areas since they provide such information in spatial resolution which permits the study of seagrass with extreme confident.

Keywords: UAV data acquisition, aerial photo, Structure from Motion, image processing, Posidonia Oceanica.
13.3 The integration of UAS and Structure for Motion pipeline for High-Resolution 3D visualization of beach zone topography

Authors:

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Coastal environments and their topographic changes have increasing interest among scientists that monitoring degradation in sensitive coastal areas. Topographic changes in beach zones are observed mainly after severe events due to the action of the sea and sea waves. Additionally, human interaction can be a cause of the coastal environment material allocation. For scientists monitoring coastal geomorphology, the availability of topographic datasets at a high vertical accuracy and resolution for mapping and visualizing the beach topography in different time stamps can be an effective monitoring tool. For such studies, digital surface models and 3D visualizations of beach system is fundamental, especially for monitoring sensitive beach zones.

This paper outlines the integration of Unmanned Aerial Systems (UAS) for data acquisition and Structure from Motion (SfM) pipeline for the 3d visualization of Eressos Beach topography. In this study a vertical takeoff and landing UAS equipped with a non-metric camera was used to acquire aerial images in high resolution (better than 5cm). The SfM pipeline was selected as a fast, inexpensive, automated and robust methodology for the creation of high-resolution 3d visualization of the study area topography. In particular, the SfM process includes: aerial triangulation of UAS derived aerial images, camera calibration, creation of dense-point cloud, production of high-resolution digital elevation and surface models and finally the generation of 3D visualization of the beach zone. This integration indicates that UAS-SfM pipeline can fulfill the lack of conventional airborne system data acquisition without any loss in the quality and accuracy. This study reveals that less than decimeter-scale vertical accuracy can be achieved for the 3d visualization of beach zones even for areas with complex topography.

Keywords: 3D visualization, UAV data acquisition, SfM pipeline, Digital Elevation Model, Digital Surface Model, orthophoto maps.
13.4 Solutions to drinking water supply problems in small islands

Authors:

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Caribbean Sea islands are characterized by extreme poverty, elevated population density and a rising population growth rate. Along with these stressors, environmental degradation is threatening basic daily needs, including drinking water. Every day improved water treatment is becoming more imperative to protect public health. A significant percentage of small islands population, such as Puerto Rico, rely on independent small water systems. In Puerto Rico there are approximately 239 drinking water systems that serve 3% of the population. The majority of these systems do not provide adequate water treatment, resulting in violations to drinking water regulations. Considering the system’s size, capacity and population served, slow sand filtration is one of the most reliable and cost efficient options to assure suitable water treatment. The construction cost of one unit has been reported as US$17,000 (Flow =2 L/s). Although slow sand filtration is recognized for its efficiency improving physical and microbiological quality of the water, it has limitations, mainly caused by a lack of knowledge about the processes that occur in the microbial layer that forms in the top of the sand bed. This biological layer is responsible for the major part of the water purification that occurs in the filters. This paper examines new molecular techniques, such as metagenomics, that allow for the study of complex microbial environments such as those found in the aforementioned microbial layer. Understanding the processes that occur in slow sand filters will allow for their better use in small water systems and provide assurances of improved public health and regulatory compliance.

**Keywords:** small water supply systems, slow sand filtration, drinking water, water treatment.
14 Integrated Management of islands: Planning

14.1 Archipelago: A digital repository supporting research and development for islands

Authors:

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Nowadays information systems (and in particular geographic information systems) play a crucial role in supporting decision making for managing and administrating territories in different levels of authority. Unfortunately, most of them are not dedicated or customized for the special needs imposed by islands. Insularity, combining the characteristics of small size (in terms of area and population) and isolation, requires special strategies for planning, sustainable development or protection. These in turn demand on both data and data management utilities of low granularity, not provided conveniently by statistical authorities or software products.

In this work we describe the design, implementation and operation of Archipelago, an integrated information system for insular research and development. The main objectives of the system are the storage, documentation and dissemination of digital material regarding islands (such as files of any media type, spatial datasets, statistical data and bibliographic references), as well as the incorporation of cartographic facilities for searching and visualizing its contents. The basic principle governing the system is the ability to geographically designate any of the incoming materials, either by drawing a bounding rectangle on a map or assigning the name of an island or an island cluster.

The system is compatible with many of the standards for digital information documentation and interoperability, such as Dublin Core, INSPIRE metadata regulation and OGC spatial web services, and it is based on free and open source software tools.

We also present our one-year experience of its operation, some critical issues regarding copyrights and policies, as well as our future plans, both on technical and organizational domain.

Keywords: insular repository, geographic services, geographic metadata.
14.2 Competing knowledge systems and responses to environmental pressures on the Bahamas

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In times of climate change and global ecosystem degradation, Small Island Developing States (SIDS) are both showcases and indicators for global social-ecological dynamics. Resilience is among the most prominent concepts to assess and improve communities’ capacity to adapt to environmental changes, described as adaptability. But how environmental pressures are perceived and how this perception translates into action and specific behavioural patterns, is regionally different, and depends on cultural, historical, and cognitive contexts.

Within the cultural and regional framing, different knowledge systems can be identified, which affect perception of and behavior towards environmental concerns – e.g. scientific knowledge, lay knowledge, indigenous knowledge. Such knowledge, moreover, can be instrumental, emotional, or transrational. Knowledge systems can be competing, as they are influenced by different and changing cultural identities, experiences, worldviews, norms, and (unequal) power relations.

How do competing knowledge systems influence adaptability? And how can we learn from them, respectively? By means of qualitative and quantitative empirical research on the Bahamas, we show how different knowledge systems translate into different modes of responding to specific environmental pressures, such as invasive alien species, and sea-level rise. The understanding of historicity and temporality, experience and learning processes, the “invention of tradition”, which frame people’s knowledge of their environment, is important for understanding potentials for adaptability.

Keywords: resilience, adaptability, knowledge systems, environmental change, Bahamas.
14.3 The role of shared governance to the co-creation of unique tourism experiences in the Asinara National Park

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The Asinara National Park is located in the homonymous island which belongs to the Sardinian Archipelago (Italy). For a long time Asinara had the status of a forbidden territory; only in 2002 it was recognised as a National Park, and returned to open access to neighbouring people and tourists. Currently, Asinara may be visited only through Park’s guide services, which compose a constellation of around 200 SMEs. The attraction of Asinara depends upon its legendary story of inaccessibility which fascinates visitors, and the relative remoteness, which also plays an important role in protecting and preserving the natural environment. Until a couple of years ago, the SMEs had very conflictual relations among each other. Although the SMEs are recognized as authorized guides of the Park, operating as autonomous entrepreneurs within its territory, they are like ambassadors of the Park playing a key role through their business on communicating to visitors the environmental and social values of the protected area. On the light of that, the Asinara National Park recognized the need to improve both the quality service delivered by the SMEs and the customers experience by promoting training activities within the tourism operators. Specifically, the contribution aims at exploring the ways through which the collaborative and non-hierarchical governance approach promoted by the Park through the engagement with its stakeholders, the tourism entrepreneurs, influences the sustainable tourism management of the same SMEs, as well as the tourism experience of visitors, and the extent to which that approach creates unique and satisfactory experiences both for operators and tourists.

Keywords: shared governance, stakeholder approach, values’ co creation, sustainable tourism, Asinara National Park.

14.4 Ecosystem functions identification and spatial attributes in small islands context – case study of the Azores archipelago

Authors:
Marta Vergílio, Catarina Fonseca, Artur Gil, Helena Calado

Earth’s ecosystems and the services they provide, such as food, water, climate regulation, aesthetic enjoyment and spiritual fulfillment, have been increasingly recognized as the
critical foundations of human societies. The recent approach to conservation based on ecosystem functions protection, as well as their impacts to human well-being through the provision of ecosystem services, has been advocated to integrate the spatial planning practice.

Negative impacts resulting from conflicts in sectoral interests are even more significant in small islands due to their closed systems and higher susceptibility to global changes.

The Azores archipelago is a Portuguese Autonomous Region and one of the Outermost European Regions. Despite increasing attention given to ecosystem functions and services worldwide, Azorean communities are not yet very aware of these concepts and its integration in public policies is absent.

This study provided a first and exploratory analysis of ecosystem functions in Pico Island, the second larger island of the Azorean archipelago. Main groups of ecosystem functions were identified, grouped and mapped. The innovation of these groups relies on its simplicity and easy integration on spatial planning instruments. In what extent current protected areas overlap those ecosystem functions was also analyzed.

This study demonstrated that ecosystem functions may contribute to validate protected areas limits as well as contribute to propose other areas with potential for connectivity between protected areas. This study also demonstrated that spatial representation of ecosystems’ functions groups may contribute to understand where the areas with higher potential for conflicts between conservation and human activities are located.

**Keywords:** Ecosystem function, small island, spatial planning, protected area, conflict.

**14.5 Developing Sustainable Islands in Korea: Challenges and Possibilities**

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Islands are environmentally feasible ecosystems. However, as islands are especially vulnerable to global climate change, their original ecosystems and biodiversity are changing. At the same time, islands are often faced with decreases in population that are mainly due to an aging society. In Korea, there are currently inhabited islands that are gradually heading towards becoming uninhabited. In those situations, the Korean government is trying to keep those islands inhabited by supporting local residents in their basic needs. This presentation will introduce a case study aimed at developing a sustainable island strategy for use by the
Korean government. To establish a sustainable island strategy, a model is suggested that consists of four major components: island resources, island space, information and industry, and community cooperation. For the strategy to be successful, these four major components should be balanced and coordinated. Altogether, the final goal of the strategy is to reform islanders' life, create island value and develop climate-adapting island design. Most local islanders want to construct bridges to connect their islands to other islands or the mainland. Although this could be one way to help recover the local economy and activity, we have to understand it will also have many negative effects that are irreversible.

14.6 A socioecological systems approach to island sustainability: the case of Samothraki (Greece)

Authors:
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This contribution will seek to explore the factors that cause island societies to prosper and sustain themselves and those that lead to collapse. On the island we investigate (Samothraki, Greece), a number of historical cases of collapse have occurred, in the sense of breakdown of cultural complexity and rapid population decline. At present there is a fragile situation of slow decline of population and ecological and socioeconomic challenges that might possibly be brought to a “tipping point” by impacts of the Greek economic and governance crisis and climate change. In a multi-stage process supported by our research, the island community has decided to apply for the whole island to become a Biosphere Reserve by UNESCO standards, thus going for a vision combining nature conservation and sustainable livelihoods.

By the use of a model of the island’s socioecological system, which highlights the interlinked nature of social and environmental challenges, we seek to generate insights about how to avoid critical demographic tipping points as occur in many rural settings, but may hit much harder on an island with a limited potential for mobility. We analyze criticalities of the land use system (e.g. overgrazing, fostered by EU-CAP subsidies) and opportunities to maintain income while reducing livestock, and opportunities to maintain income from tourism while reducing its environmental burden (wastes, emissions, and infrastructure). Methodologically, we use material and energy flow analysis, and look at flows of income and of population. On the basis of qualitative interviews and focus group discussions, we analyse
factual and potential modes of collaboration between stakeholders and their chances of improving self-governance.

**Keywords:** Island sustainability, transdisciplinary research, socioecological transition, tipping points, collapse.

Presenter: Arjen Alberts MSc, with contributions by prof. Godfrey Baldacchino

**14.7 Development and resilience in Caribbean Small Island Tourism Economies**

**Author**

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Tourism-oriented Caribbean territories dominate the list of most developed Small Island Tourism Economies (SITEs). This presentation will investigate certain dimensions of a dedicated tourism-driven and highly immigration-dependent development model prevalent in the Caribbean.

A preliminary question pertains to the quality of this development, whether a high volume tourism strategy has resulted in increased productivity. To that end, the development of several tourism volume indicators is compared to real GDP growth. The sustainability of models based on extensive economic growth is questioned.

Furthermore, the merits of the high degree of specialization of Caribbean tourism economies are viewed in the framework of the vulnerability-resilience debate. Does the fact that these islands have put all their eggs in one basket, make them particularly vulnerable to incidental, localized external shocks, or to structural shocks emanating from the world economy?

On a micro level, the question is addressed whether the degree of resilience that these island tourism economies display can be explained by specific, flexible income generating strategies on household or individual level. Such strategies could stretch from pursuing different jobs and careers simultaneously (occupational multiplicity) via combining relatively secure formal sources of income with – informal – jobs or entrepreneurship, to a flexible attitude to (intra-regional) migration driven by opportunities on the different labor markets.

Empirical data will be used from case studies on the Dutch territories of Aruba and Sint Maarten, as well as the US Virgin Islands. All three rank in the top tier of the SITE category in terms of the Tourism Penetration Index (TPI).
Keywords: SITE, resilience, Caribbean, tourism, development

14.8 An integrated framework for decision support in islands’ management: a case-study for Samos island in the Aegean, Eastern Mediterranean

Authors:

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Sustainable islands' management has to be based on quantitative tools able to integrate the natural, economic and social environment, including the effects of recent climate changes. In this context, a Decision Support System (DSS) is proposed, adapted and applied in Samos island, in Aegean sea, Eastern Mediterranean. The DSS includes (a) compilation of existing information for the study area and organisation in a DPSIR framework, (b) selection of the main economic sectors (e.g. agriculture, stockbreeding, fisheries, tourism, industry, aquaculture, services), (c) calculation of environmental (water and energy consumption, nutrient loading, biodiversity loss), economic (income, employment) and social (human development) indices through models, used both for the assessment of the current state and the future evolution of the island, (d) development of possible scenarios for future evolution and (e) ranking of scenarios for their preferability using a multicriteria methodology. Scenario development and weighting of indices and criteria are based on stakeholders’ views collected through questionnaires. Tourism and services are the most important sectors for income and employment, whereas agriculture and households seem to be the main origins of environmental pollution and water/energy consumption. According to the stakeholders’ views economic growth is sought, however environmental protection is of top priority, therefore the 'green' scenario of sustainable growth is the most preferable. The proposed DSS is flexible enough to be adapted to the specific characteristics of each island, therefore transferable, user-friendly, easy to be applied and able to include political priorities and social views.

Keywords: sustainability, models, multicriteria analysis, stakeholder analysis, climate change.
14.9 Wastewater treatment systems for small islands: case study of Puerto Rico and the United States Virgin Islands

Authors:

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There are more than 100 Caribbean Sea islands, ranging in size from 109,880 km² (Cuba) to 13 km² (Saba). Economic development, population density and social structures also vary widely among them, which has resulted in significant differences in wastewater composition, conveyance, treatment and disposal. These range from backyard disposal of fecal matter, onsite treatment (at the household and community levels) to advanced wastewater treatment facilities that produce water that almost meets drinking water standards. This paper discusses the history and development of wastewater facilities and regulations in the Caribbean islands, with particular emphasis on Puerto Rico (8896 km², 99 wastewater treatment plants) and the United States Virgin Islands (three islands, 346 km², 15 wastewater treatment plants). Conditions peculiar to small islands such as the possibility of ocean disposal (and appropriate treatment levels for it), short, low flow rivers which provide little dilution and are likely to be used as drinking water sources a short distance downstream from a wastewater discharge, and the lack of lakes of any significant size, are addressed with specific examples showing what worked and what did not, and the reasons for failures. The regulatory side is addressed by a critical analysis of approximately forty years of laws, regulations, legal battles and consent decrees. Recommendations are provided for planning of wastewater facilities in the particular conditions of small islands.

Keywords: wastewater treatment and conveyance, appropriate technology, environmental effects.

14.10 Emphasizing Sustainability Science to Invigorate Island Sustainability Planning

Author:

Timothy Botkin

Island communities have significant advantages and potential for comprehensive and sustainable community planning. But too many 'sustainability plans' are really just as rigid and hierarchical as their non-sustainable antecedents, and are merely re-upholstered with
new technology or out-of-context practices. Sustainability science requires the use of systems thinking skills, problem-driven inquiry and adaptive management to discover, scope and address the complex dynamics of persistent societal issues. The problem, not the generic solution, must define the boundaries of this process. Thus solutions may vary and flex according to the circumstances, and finding ones which are adequately broad and able to survive the long term rely as much on the process definition as on the directives of the initial resolution itself. Island communities offer unique opportunities to develop holistic approaches to meet these challenges. At the University of Hawaii Maui College, sustainability leadership is piloting the campus Sustainability Lens; a process choreographed to tap the ideas and awareness of the broadest population available, to seek and incorporate collaborative partners and to use local circumstances and expertise to hone feasible, adaptable sustainability priorities. These will reference and become the plan. The Lens is designed to apply in a next phase to the larger Maui island community, galvanizing symbiotic resource-protection and economic vitality interests. In this presentation, the history, functions, and structure of the Lens will be presented as an alternative to most contemporary planning approaches.

Keywords: Sustainability science, Problem-driven, Systems thinking.

14.11 Maritime Spatial Planning integration in Spatial Planning: Evidence from the Crete region

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The prosperity and the economic growth of a place, is directly linked to the sustainable use of maritime space and the resources which are emanated from it. The argument seems to have special significance in Greece, because of its coastal and insular character. The coastal and insular character of Greece is formed by an extensive coastal zone which has a total length approximately 15.000 km, the largest in the Mediterranean, as well as by 3000 islands and islets of which only the 127 are inhabited. However, the sea very often is a field of human use conflicts. Many activities and uses compete for the same area. The Maritime Spatial Planning must regulate them in a sustainable way, in order to wave conflicts and encourage synergies and compatibilities.
The maritime space is not an autonomous and independent space category, on the contrary it is in a direct inter-connection with the coastal zone, which has a vital significance for the human activities. The coherence between terrestrial and maritime space is a critical issue that needs to be approached in an integrated way. To that end, the Directive 2014/89/EU of the European Parliament and of the Council attempts to establish an integrated framework for maritime spatial planning.

So far, in Greece, the steps which have been made for the regulation of coastal and marine space are heading to the sectoral and fragmented planning efforts and not to an integrated policy for maritime and coastal zones. The spatial planning system in Greece, which has a number of tools that could be used to the sustainable management of coastal and insular nature of Greece, is characterized by inconsistency and absence of strong binding ties between the planning levels. This article examines the integration of Maritime Spatial Planning in the Greek spatial planning system. In particular, we examine the integration of maritime priorities in the regional planning studies in Crete island, which is currently under revision, as well as the participatory processes and consultation processes adopted. Crete is one of the four total insulars Regions of Greece. Its marine and coastal area receives strong pressures (e.g. intensive coastal erosion, aggressive tourism, land use conflicts), mainly due to the expansion of human activities.

**Keywords:** Maritime Spatial Planning, Integrated Coastal Planning, Regional Planning, Crete, Greece.

14.12 Energy independence and environment management in islands: The case of The Canary Islands

**Authors:**

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The character isolated of the archipelagos like The Canary Islands, make them very weak to face energy problems due to the need of importing the most of the energy resources. For this reason, many economical, technical and research efforts have been focused on trying to reach some kind of independence in energy resources. In the other hand, the environmental richness of the Canary Islands and its biodiversity makes the archipelago very sensible from the environmental protection perspective.
The aim of this work is showing the different technical and research approaches done during the last years in The Canary Islands, the projects in charge of the energy development of the archipelago, and its influence on the environment. Due to the biodiversity, are all the renewable energy sources environmentally safe in Islands? This is the main question to analyse and study.

Wind and solar energy are initially implemented as a small part of the electric power system, but there are studies about marine energy and multiple sources systems including Energy Storage Systems that need a lot of territory and that could become an option in a future.

On the other hand, the environmental management of systems such unique and delicate like islands, has to preserve the great richness of the archipelagic biodiversity, landscapes, etc.

**Keywords:** Energy, biodiversity, management, renewable.

### 14.13 Lessons learned from a small-islands energy project

**Author:**

Christian Pleijel

The energy consumption, energy solutions, greenhouse gas emissions and efforts to produce sustainable energy locally, on fifteen small islands of Europe have been the focus of a two-year project by the author. These islands were members of the European Small Islands Federation (ESIN) and formed a small-island cluster in the main project called SMILEGOV, financed by the European Commission.

The fifteen islands were: Ischia in Italy, Sein, Molène and Ouessant in France, Bere, Chleire, the Aran Islands and Arranmore in Ireland, Ven, Visingsö and Vinön in Sweden, Sottunga and Simskäla in the Aland Islands, Nagu and Iniö in Finland.

The project asked whether (1) Small island societies are energy-efficient; (2) The energy consumption patterns of islanders and mainlanders are the same; and (3) whether small islands have a positive or negative carbon balance?

During the project, system data from energy suppliers was collected. Assisted by some 40 people living on the islands, the project manager conducted field studies, took part of results from previous studies and interviewed officials, islanders and ferry operators.

The island societies were described in an integrated way since energy planning is closely related to and vital for transportation, immigration, trade and industry and tourism.
The answer to question 1 is no, whether dividing the total energy use of the island by the population according to census, or dividing it by the total number of human days spent on the island per year (= the human pressure).

The answer to question 2 is no. 36.8 per cent of total energy used on these fifteen small islands is for ferries, a means of transport not needed in mainland communities.

Islanders tend to exclude the impact of sea transports in their energy accounts, but also to exclude the sea. If an island is a piece of land surrounded by water, the “wet area” of the island should be included when making a carbon balance sheet and so should the impact of ferries which are an integral part of the island society.

The sea is a major carbon dioxide sink. Some islands have immense volumes of sea included in their political boundaries, others have them in their natural limits or in their cultural context. When included in the emission calculations, the answer to question 3 is that islands have a positive impact on their environment.
Panels

15  Panel: Dutch Wadden Sea Islands

15.1  Governance and the potential of tourism for building social-ecological resilience: exploring the case of the island of Terschelling

Author:

Jasper Heslinga

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Tourism is a human activity that depends on the qualities of a landscape, but it also has an influence on the landscape. Because of this mutual relationship between tourism and landscapes, this paper argues that tourism has the potential to build social-ecological resilience in an area. Building resilience implies looking for a balance between both the needs for natural protection and opportunities for social-economic development. To increase social-ecological resilience, it is important to look for synergies between tourism and the landscape.

This paper argues that the key for finding these synergies lies in governance arrangements. A society’s ability to manage resilience resides in the interactions in actors, social networks and institutions. Therefore, this paper explores the governance processes on the island of Terschelling in the Dutch Wadden area by analyzing the roles of relevant actors, their positions and how they interact with each other. This paper shows which factors are enabling and/or constraining social-ecological resilience and reflects upon the difficulties of finding synergies between tourism and landscapes.

Keywords: Tourism, Social-Ecological Resilience, Governance, Terschelling island.

15.2  Monitoring sustainability of the islands in the trilateral UNESCO World Heritage Wadden Region with the Waddenmonitor

Authors:

John F.L.M.M. Dagevos, Jouke van Dijk

Telos, Brabant Centre for Sustainable Development, Tilburg, University, PO Box 90153, NL-5000 LE Tilburg, The Netherlands and Center for Sustainable Community Development van de Simon Fraser University in Vancouver (Canada)
The trilateral UNESCO World Heritage Wadden Region counts 25 inhabited islands and several smaller vegetated islands and barren high sands. The total area of the islands is about 2,000 km² and the Wadden Sea itself covers about 8,000 km². This system needs to be managed so that both the ecosystem and the social system can develop in a sustainable way. This in itself is a real challenge. Proper management can only be applied if there is sufficient ecological and social background information and knowledge to manage this integral system and an adequate monitoring framework. This paper presents a theoretical framework that can be used to discuss the question of how context, time and different participatory process designs influence the results of participatory monitoring projects in terms of concrete outputs (such as sustainability indicators) and the more intangible social outcomes (such as learning and stakeholder relations). Sustainability of the Wadden island is strongly dependent on, amongst others, the size of the island, the economic activities and its location in relation to major economic centers. As a result sustainability scores of islands can vary considerably. Therefore, developing a sustainability policy for the islands needs to be customized. On request of the Dutch Ministry for Infrastructure and Environment, Telos, Centre for Sustainability Studies at Tilburg University, has developed a National Monitor of Municipal Sustainability and is based on recent values for a total of 90 indicators. Measurements are based on the Telos sustainability balance method, which closely resembles the approach of the EU Reference Framework for Sustainable Cities. We will present the results of a special version of this monitor that is able to monitor the sustainability of the islands in the trilateral Wadden Region also in relation to the integrated management of the whole trilateral Wadden Region and its World Heritage status.

15.3 Beach combing on the Dutch Wadden Islands

Authors:
Gerard A. Persoon, Tessa Minter

Beach combing has been a well-established tradition for coastal communities along the sandy beaches of the Netherlands and in particular for the communities on the Wadden Islands. With the prevailing western winds and the dominant current of the North Sea all kinds of useful products are washed ashore. These products originate from ships carrying various types of cargo but in addition driftwood and discarded waste from distant places can also be found at the flood line. Marine animals, dead or wounded, often get stranded at
some point. In the course of history numerous ships stranded on the sand banks and shallows waters during the heavy storms. These wrecked ships often became targets of plundering.

While inhabitants of the Wadden Islands consider beach combing as their native and historical right, legally everything that is washed ashore should be handed over to the mayor of the island who has the duty to return the objects to the rightful owner. So in legal terms ‘beach combing’ (and keeping the found objects as private property) is against the law. These different perspectives on sea combing continue to be a source of serious tension on the islands.

In this paper we shall present the cultural history of beach combing on the Dutch Wadden Islands and the results of recent fieldwork with groups of students about the conflicting perspectives on the practice of beach combing, while focusing on some controversial cases of ‘lost and found property’.

Keywords: beach combing, Wadden Islands (the Netherlands), legal aspects, ‘lost and found property’.

15.4 ‘Climate Citizenship’ at the Foreshore? Implications of islander’s ‘climate-knowledges’ for science-stakeholder interaction in the North Frisian Wadden Sea (GER)

Author:

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Citizen participation has frequently been discussed and represents an important topic in ongoing debates about the social adaptation to climate change on small islands. A wide range of participatory procedures has emerged in the field of science-stakeholder interaction over the last decade aiming at facilitating knowledge transfer between science and society in a variety of ways. Many of these approaches rely on a problematic deficit model of local knowledge triggered by the normative assumption that de-contextualised scientific knowledge provides the relevant key for implementing effective climate adaptation strategies. This approach has proven to be problematic as such an understanding is implicitly based on the rational concept of ‘climate citizenship’ that often neglects the experience-based character of local ‘climate-knowledges’. Even though first attempts to understand and reconcile scientific and local ‘climate-knowledges’ exist, scholars from the humanities and
the social sciences have to date been relatively silent about the conceptual processes underlying the social generation of ‘climate-knowledges’ and their potentials for grounded adaptation strategies. The paper takes this problem as a starting point to empirically explore ‘climate-knowledges’ on three small North Frisian Islands. Data were gathered though semi-structured and walking interviews conducted with a representative set of islanders and analysed according to requirements outlined in grounded theory and applied linguistics. The aim of the paper is twofold: to structurally analyse what ‘climate-knowledges’ exist among islanders and to explore how the different types of ‘climate-knowledges’ provide new opportunities for theorising about science-stakeholder interaction that go beyond a scientifically informed ‘climate citizenship’.

**Keywords:** German Wadden Sea Islands, climate change, local climate perception, climate citizenship
Panel: Living on Islands: Economy, Governance and Quality of Life on Selected Bahamian Island

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This panel explores the intersection of tourism and the day-to-day events of living on islands. It works through three areas in particular, the economy, the local quality of life and governance. Tourism has become the bedrock of many island economies because of their idyllic lifestyle and picturesque beauty. Tourists desire the experience of being on an island far away from all their worries, but this desire changes lives for locals as land is consumed by development, prices rise and daily essentials such as potable water become hard to access due to the strain placed on these by an increasing population. Governance is a focal point as local communities inclusion or exclusion from the decision making process around how development will look on their island determines how they feel and act. These decisions also impact their quality of life as overcrowding leads to other environmental problems and social ills. The three papers here speak to this paradigm and offer recommendations for a more balanced future.

16.1 The Quality of Life on the Islands of Andros, Bimini, Eleuthera, Exuma, Harbour Island and Spanish Wells

Author:

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¹ Associate Professor, School of Social Sciences, The College of The Bahamas

Tourism has played a significant role in the development of The Bahamas, facilitated by a changing mix of government policies relating to size and type of developments, incentives and sustainability. In 2002 the Anchor Investment Policy was initiated to create employment on each of the large islands in The Bahamas through the development of large hotel resorts (anchor projects).

Tourism development, no matter what scale, has the potential to impact the lives of residents of the islands of The Bahamas and requires a commitment on the part of the government to see that the development is successful. While residents have generally benefited from increased jobs and increased income, it is contended in this paper that there
is no clear evidence that the quality of life— as it relates to such quality of life indicators: human, social and built capital— of the residents have improved as a result of anchor projects. This contention is examined using the anchor projects that have been implemented on the islands of Andros, Bimini, Eleuthera, Exuma, Harbour Island and Spanish Wells in The Bahamas as case studies.

16.2 Major Economic Issues on the Islands of Andros, Bimini, Eleuthera, Exuma, Harbour Island and Spanish Wells

Author:

Sophia A. Rolle

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Since the mid-1800s, the islands of New Providence and Grand Bahama have been in the business of tourism in The Bahamas. Tourism is the major economic driver of these economies. The approach to economic development for the remainder of the Islands of The Bahamas has been much slower. In fact, although governed by central government and managed by some form of local government, each island have different economic drivers. In recent times, and shifts in global economies, many of the smaller islands have had to seek new innovations to sustain them.

An examination of major economic issues such as second home development, subsistence farming and fishing and the innovation needed to foster more robust island economies on the islands of Andros, Bimini, Eleuthera, Exuma, Harbour Island and Spanish Wells will be explored.

Major economic issues and concerns such as a lack of a distribution channel on the islands mentioned that would allow for wider distribution of goods produced is now being demanded by locals of the islands. More participation and incentives for locals so that they can compete in the widely popular and extremely profitable second home market is also now being demanded.

What are the policies needed to regulate and grow these economies?
16.3 The Quality of Life on the Islands of Andros, Bimini, Eleuthera, Exuma, Harbour Island and Spanish Wells

Author:

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The built environment is a major factor affecting the quality of life of Islanders. In this region’s hot and humid climate, building styles are often chosen which are not conducive to the environment. Instead of focusing on the often subjective issues of style, guidelines need to be developed (and practiced) that focus on a building’s performance.

This study will suggest ways in which buildings can function more comfortably, harmoniously and with lower impact on their context, ultimately helping to define a more sustainable Bahamian Architecture.

With new buildings, making good planning decisions and choosing low impact materials is essential. For both existing and new buildings, it is important to explore strategies to reduce energy use. Good roof insulation and ample ventilation help to make buildings more comfortable, reducing the need for air-conditioning and other electric systems.

On average materials used in building construction account for 80 percent of all energy used by a building over its life span. Therefore, finding the right material to use may be one of the most fundamental choices an architect or builder can make when trying to minimize a building’s environmental impact. When planning a building, it is worthwhile to invest additional time in this process, as each material choice impacts the many stages of a building’s lifecycle.

This study will result in a compilation of architecture guidelines for the Islands of The Bahamas, which will positively affect its quality of life.
16.4 Governance Issues on the Islands of Abaco, Andros, Bimini, Cat Island Eleuthera, Exuma, Harbour Island, Long Island and Spanish Wells

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Traditionally income based measures such as the GDP are often used to generally summarize the quality of life of many developing countries without consideration of the diversity of the population, its varying needs and the extent of development throughout the country. These differences in development are amplified when dealing with archipelagos like The Bahamas where islands have varied economic resources that contribute to differences in the individual development of these islands. When establishing policies for national development in an archipelago there is a tendency to assume a one-size-fits-all approach with little attention paid to the sub-cultures and sub-economies existing within a nation, particularly in rural areas. Policy decisions made at the level of central government, affecting the growth and development of the nation without input of locals in rural populations in archipelagos like The Bahamas have unintended consequences. In addition, variation in the provision of public services and the presence or lack thereof of participatory governance at the local level can affect development.

This paper examines the variation in local perspectives of governance and provision of public services in selected islands throughout The Bahamas. There is also a comparison between the perspectives of these rural island residents with those in urbanized New Providence with regard to national development.

The level of citizen participation in governance as well as the level of trust in institutions both formal and informal will be discussed in light of economic development and the quality of life for residents of these islands.
17  Panel: Bedevilled Islands: Manus and Nauru in the Australian Nissology

Grant McCall, Anthropology, University of Sydney

Australia sees itself not as an archipelago with more than 5,000 islands nor, for the most part, as anything like an island nation, deriving no doubt from similar denials in its core origin migrant population from Britain. Relative to the region, Australia more identifies with continental entities. But it has more than 200 years relating to Oceania as a source of goods and services, in the form of natural resources and early contract labour schemes. In the 21st century, the independent island nation of Nauru and Manus Island, Papua New Guinea, have come to be detention centres for asylum seekers who attempt to seek refuge in Australia outside the usual State channels. Australia's nissology of its neighbours is to see Nauru and Manus as punishment centres, intended to discourage anyone from operating outside its State controlled regulations. Australia’s nissology is exploitative, yet again, and explained by Jim Sidanius and Felicia Pratto's (Sidanius & Pratto, 1999) “Social Dominance Theory” of intergroup relations.
18 Panel: Disseminating entrepreneurship success stories from small island states and territories: Discussion of ‘next steps’ with a panel of authors

This panel consists of contributors to the recently released book, “Entrepreneurship in Small Island States and Territories”. The panelists discuss ways in which the research on examples of island entrepreneurship may be disseminated to decision-makers and the public, and may also be useful to those with development aspirations on other small islands and territories. The discussion will also incorporate the thoughts of contributors to the book who are not able to attend this conference.

Keywords: entrepreneurship, small islands, knowledge dissemination, public policy, lessons learned.

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Panel: (Un)healthy Islands? Investigating Entanglements of Island and Health

Eva-Maria Knoll, Institute for Social Anthropology, Austrian Academy of Sciences

This panel seeks to explore entanglements of island and health dynamics in the past and present. These interwoven dynamics range from negative, health-threatening effects to positive, health-promoting aspects.

Islands’ exposed position to environmental disasters such as tropical cyclones can have negative effects for human health. Their surrounding waters may be infested with sharks and marine stingers and the marshes of low-lying tropical islands are notorious breeding grounds for mosquito-borne infectious diseases such as malaria and dengue fever.

Islands’ remoteness has disadvantages in cases of emergency. Remoteness, however, has also been convenient for disease prevention and control. Quarantine islands or leprosy colonies are cases in point.

At the other end of the island-health dialectics, islands also could be considered as particularly healthy. A fresh and clear breeze and pristine beaches make islands attractive destinations for health matters. Some islands even have specialized as clinic or hospital sites; commodifying the island’s remoteness for its positive effects for recovery in health tourism or medical tourism.

This panel invites case studies highlighting health issues located in island or archipelagic settings. Papers could discuss positive or negative effects, individual or collective efforts regarding treatment and prevention from both healthcare providing or healthcare seeking perspectives within a biomedical or traditional medicine context.

19.1 How to screen an archipelago? Genetic responsibility and the fight against inherited anemia in the Maldives

Author:

Eva-Maria Knoll

Institute for Social Anthropology, Austrian Academy of Sciences

The Maldivian Islands primarily are known as a high priced tourist heaven or as a drowning paradise in climate change discourses. It is hardly known, however, that the archipelago’s population struggles with the world’s highest prevalence of beta-thalassaemia major – a
genetic disorder affecting the body’s ability to create red blood cells. This paper brings the archipelago in dialogue with that pressing health issue. It discusses the setting of a 300:1 sea-land-ratio with a scattered population as a challenging terrain for preventive population-screening programs.

Population screening programs are carried out in order to identify carriers, raise awareness and govern the islanders’ reproductive behavior with the aim of reducing the number of affected newborns. Based on ethnographic data, this paper shows how ‘genetic responsibility’ – as Novas & Rose outlined the understanding and response to issues related to risky genes – is organized, rationalized and carried out by different actors. The paper’s narrative follows an outreach team of health professionals from the capital along their route to islands in an outlying atoll where they deliver awareness lectures and take blood samples for genetic screening. In order to broaden and contrast the perspective of genetic service providers, the paper further accompanies a couple from an atoll to premarital genetic screening in the capital island Male’.

By considering dynamics between genetics, public health efforts and the unique environment of an archipelago, this paper looks into the mobilities and spatiotemporal coordination of people, laboratory equipment, genetic information, timetables, biopolitics, genetic identities, travel routes, and personal life trajectories.

**Keywords:** Maldives, archipelago, genetic responsibility, health-related mobility, identity

19.2 A Spatial Decision Support System (SDSS) for environmental epidemiology

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Geographic Information Systems (GIS) have become an effective tool for decision support. Spatial Decision Support System (SDSS) is a relatively new field developed based on Geographic Information System (GIS) and Decision Support System (DSS). Geography could be considered an important factor to explain epidemiological information especially combined with environmental mapping capabilities with additional database management and data analysis tools. Maps and geographic features can be used to show decision related
information and relationship between objects to solve important problems like in spreading diseases in environmental regions.

In this work a SDSS platform is described and the methodological techniques for the development of a real time electronic health record is proposed, with main task the statistical analysis of the geographic information for the identification and analysis of different disease that can be happened in a specific mapping place. The possibility of incorporating data from different sources, in order to gain new information, is included. This is made possible by making use of the possibilities given by presenting these elements (mapping), which can lead to the efficient analysis of health problems and support decision-making, for the improvement of healthcare provision. GIS provides the possibility of finding regions with an increased frequency of diseases and inverse health conditions and it examines the territorial relation between the prevalence of diseases and information that is shown through the territorial GIS systems.

**Keywords:** Geographic Information System, Electronic Health Record, Health Sector, pseudo-GIS, spatial analysis, Spatial Decision Support Systems.

19.3 The Center for Biomedical Research of the Canary Islands (CIBICAN) as a successful for research and innovation in biomedicine

Authors:

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CIBICAN is a strategic project of the University of La Laguna at the island of Tenerife. It is aimed at further development of the international profile of its biomedical and health research groups. In 2012 the European Union funded the University of La Laguna an ambitious project to specifically improve biomedical research and innovation in the Canary Archipelago. The medium and long-term goal of CIBICAN is to become a health science center with international recognition and the leading regional institution in high quality translational research. We have designed a program to combine interdisciplinary approaches towards the transference of health knowledge to the industry and societal end users.
have used this project to develop a model for research development in order to identify several focused biomedical research areas, based on the island identity and the geographical isolation as an opportunity for research, innovation and economical development. In this respect, an island can be considered as a natural biological laboratory to study human diseases in relatively small populations. In particular, the effect of human migrations can have yet unexpected consequences on the expression of rare diseases, which are the result of genetic mixtures. Thus, our project may constitute an inspiring example of how to convert the isolation component of an island in a real opportunity for growth and development.
Maximizing the value of the new UNESCO Chair on ‘Island Studies and Sustainability’

We are pleased to announce the approval of a new UNESCO Chair on Island Studies and Sustainability, jointly held by Drs. Godfrey Baldacchino (U. of Malta) and James Randall (U. of Prince Edward Island). The purpose of this Chair is to “establish and expand academic and research programmes on Small Island Developing States (SIDS) and Sub-National Island Jurisdictions (SNIJs), thereby increasing the capacity of students, universities, faculty, policymakers and NGOs.” The proposal for the Chair was supported by many universities and organizations, including ISISA. The goal of this session is to describe the objectives and activities of the Chair and to seek the input and advice of island studies scholars, students and practitioners on how to best use the existence of this Chair to benefit those living and studying on small islands.

Keywords: UNESCO Chair, island studies, sustainability

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21  Panel: Why Island Feminism?

21.1  Bohemian Cosmopolitanism, the Imperial Gaze, and Traditions and Tourism in Skala Eresos, Lesvos

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Ta Nea, a Greek newspaper, along with travel websites and magazines, identify Skala Eresos as the most bohemian location among the Greek islands. The small island village that nearly shutters in the winter abounds with diverse tourism including lesbians, many from Northern Europe, that have been returning or residing the village, the birthplace of Sappho, for three decades. In the early 1990’s a Greek flight attendant established an Osho Center, based on Indian philosophy and the teachings of Baghwan Rajaneeshi, engaging a committed worldwide community with the center in Skala Eresos well regarded. Yet the village remains comfortably steeped in local and Greek Orthodox traditions with public displays through religious parades and traditional dances. The village also attracts a wide net of alternative (“freakyo”) Greeks many who eventually make Skala Eresos their permanent residence. This paper explores the culture practices of Greek islanders including “filoxenia” and the conceptualization of foreigners by reviewing literature on the Greek classical period and Modern Greek anthropology to embed contemporary responses to tourists by local villagers interviewed. It then turns to consider the “imperial gaze” held by many of the Northern Europeans who arrive to Skala Eresos as tourists, long-term visitors, and permanent residents but trivialized local social and cultural practices in interviews. According to hoteliers, restaurant (taverna) and café (kafenion) owners approximately eighty percent of tourists or travelers to the village are return visitors. Using fieldwork conducted between 2008-2012 in Skala Eresos this paper takes an alternative economic perspective and rhythm analytical approach. It unpacks the features of Greek “islandness” that contribute to the village’s success at integrating a range of visitors while remaining culturally and socially resilient offering a model for alternative island tourism.

Keywords: gay tourism, imperial gaze, alternative economics, rhythm analysis, Skala Eresos.
21.2 Island Feminist Studies: A theoretical overview of the ideal national body and Puerto Rico’s feminisms

Author:
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With the intent of pushing forward a new field of study that focuses on island feminisms, this presentation explores the intersections of gender, colonialism, and nation in Puerto Rico. Drawing from Chicana borderland theory, island theories, and Puerto Rican feminist research, this presentation examines the study of what I call the ideal national body, a gender paradigm intentionally inscribed on and experienced by female bodies—a body socially constructed and categorized as “female,” linked to cultural gender paradigms of womanhood and its related behaviors, norms, among other qualities attributed to females. This paradigm emerges from patriarchal traditions that read the female body as a symbolic form of the nation. Namely, the nation categorized as female and instrumentalized on the female body to represent its core values and moral codes. In the context of Puerto Rico, the ideal national body has been enforced during centuries by colonial rules and imperial formations—first by Spain and then by the United States—that continue dictating gender roles and how these roles should be performed in the Island. I examine how the construction of the ideal national body has a direct connection to gender violence, and how contemporary feminist activism challenges and redefines the national body through street performances.

21.3 Gendered dwelling in Therassia

Author:
Alexandra Bakalaki

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Situated in the southern part of the Cyclades, Therassia, an islet of 9 square kilometers is separated from Santorini by a caldera that was created by the great volcanic earthquake which occurred in 1613 BC. Given the geological continuity and proximity of the who islands, their differences are striking. Santorini is a major international tourist destination with a thriving economy, while Therassia is full of abandoned fields and houses and its tourist infrastructure is limited to a few restaurants catering to day tourists from Santorini and a small hotel. More than half of its 300 registered residents are elderly people who had emigrated to Piraeus and the surrounding parts of Attica in their youth and returned to the island as pensioners. Younger people live mainly on income gained from seasonal tourist work. With only three mini markets, an understaffed health center and no bank, Therassiates depend on the market and services of Santorini. Much everyday talk in Therassia revolves around the status of the relation between the two islands. Therassiates
generally feel that they are part of a geographic, political and economic unit from which they are nevertheless excluded.

Based on long term fieldwork in Therassia, this paper argues that the dwelling practices of islanders and the movements of visitors by which the island is constituted are gendered and, conversely, that local gender practices inscribe themselves in space and constitute Therassia as a particular kind of island, one that is defined in terms of its close connection to Santorini and its remoteness from the latter’s effervescent modernity. Focusing on the local pattern of uxorilocal residence, the division of paid and unpaid work by gender and homosociality, in the first part of the paper, I examine Therassia as an emergent task space divided by intertwining lines of gender and kinship. However, the spatial practices by which Therassiote women separate themselves off from men and vice versa also enable them to emphasize individual differences among members of each gender category. From this perspective, homosociality constitutes a framework within which gender refers to fixed properties distinguishing men from women, but also to qualities that materialize through highly individualized performances. Finally, I show that when addressing “outsiders”, Therassiotes set their differences aside and emphasize their shared economic precarity and their island’s exclusion from the state and municipal projects that have led Santorini to progress. I argue that the practices constituting Therassia may not be abstracted from the practices by which Therassiotes are constituted as gendered subjects and vice versa. However, gendered dwelling practices are multiple and, rather than amounting to a coherent whole corresponding to the place name “Therasia”, they partially connect or contextualize one another according to circumstance. On a more general level, perhaps the example of Therassia suggests that, perhaps, the concepts of islandness and gender are comparable in that they both refer to relational categories that are messy and internally divided.

21.4 Reproductive work at the “periphery”: Space, visibility, and desire

Author: Venetia Kantsa

1University of the Aegean

The cultural significance of parenthood, especially motherhood, in Greece is widely reported in the ethnographic literature. Parenthood is a highly respected status and medical practices, religious beliefs, law regulations, psychological and sociological judgments sustain and reinforce its significance. In such a context, assisted reproduction is viewed as a means to facilitate the fulfillment of personal goals and provides an answer to nationalist concerns regarding low fertility and birth rate. Thus, assisted reproduction is not just a widely used technique; it is often imposed as an imperative. Yet, for women who live in remote cities, rural areas, and islands the cost and burden of repetitive cycles increases significantly. Moreover, beyond the economic, physical, and psychological costs of travelling they have to face issues of increased visibility in front of their family members, colleagues, and fellow travellers. Drawing on ethnographic research on an island in North-Eastern Aegean, I focus in this paper on how the desire for a child through the means of assisted reproduction is
affected by space, location, and visibility. In times of economic crisis I attempt a “centre-periphery” discussion in order to remind of the significance of space and location in relation to gender, subjectivity and reproduction. What I am interested in is to which extent spatial restrictions allow these women to give up their efforts and to contest the cultural/biopolitical imperative to desire a child in a way that would be much more difficult, even inconceivable, in case these distance limitations from/to the “metropolitan centre” have not existed.
22 Upcoming Book on Maldives: Abandoned Golden Pearl!

Muna Mohamed and Fathimath Shaira

The Atolls of Maldives is often called pearls of the Indian Ocean. Its resource rich, in its beauty and uniqueness. It has existed for thousands of years, as a little but vital part of Indian Ocean economy.

However the natives in these atolls are abandoning those very beautiful islands at an alarming rate to migrate to capital city Male’, because of “lack of resources” hindering progress! Maldives is a development paradox! One might see a simple island of thousand or so people without even proper drinking water, sewage facilities, living adjacent to a world class luxury resort with every imaginable comfort, money could buy! So what are these islanders to do? Migrate to where every service is made available to nation’s best ability! The capital of Maldives: Male’.

Maldivian population in 1921 is 70,413\(^1\) of which only 6,127 (9%) lives in Male’. When we look at the numbers about 95 years later, in 2014, the registered inhabitants of capital Male’ are 60,011. However, the 2014 census\(^2\) shows the number of people living in Male’ to be 129,381 or 38% of the total population (344,023) of Maldives! How do they live? Crammed in tiny flats in slums spending 85% of income\(^3\) on rent resulting in the capital Male’ being listed as one of the Worlds’ most congested ‘city’!

Many researches note that parents and families are forced to work round the clock to survive in Male’ resulting in high divorce rates, domestic violence, gangs, (23 to 30 gangs of around 50 to 400 members in each), murders and many other social ills\(^4\). When asked why people of other islands migrate to such a chaotic environment; Top answer from the census 2014 is, for education followed by jobs and to live with family. When a father migrates to Male’ in search of jobs the family migrates to be near him!

Why has this happened?

In 2008, the income of the government elevated to 8.7 billion rufiyaa, from 1.1 million in 1994. Moreover, owing to the introduction of a modern tax system between 2010 and 2011, the income of the government further increased to 16 billion rufiyaa in 2015\(^5\). As Maldives gained in GDP due to introduction of tourism and growth in other industries, people in atolls also aspired to get better education, health services, jobs, clean water, sewage system,

\(^{1}\) HCP Bell, Monograph, Novelty Printers, Male’ Maldives, Novelty printers and publishers,
\(^{2}\) National Bureau of Statistics > Statistical Release II: Migration
\(^{3}\) Housing Assessment report, 2009 by Human Rights Commission of the Maldives
\(^{4}\) UN Human Development Report 2014
\(^{5}\) 25 years of Statistics, Maldives, Ministry of Planning and national development

The Conference will take place under the auspices of General Secretariat of the Aegean & Island Policy
paved roads and mainly access to urban cities. Once, such services are made available in the Capital Male’, many thought governments will start developing cities in other regions. However that did not happen!

Instead, successive governments started building more housing units in Male’, followed by massive expenditure for reclamation of lagoons in Hulhumale’ to make a satellite city adjacent to Capital Male’. UN special repertoire for Housing stated that the main problem in Maldives is not lack of housing, but rather the absence of “urban” or city level facilities in parts of Maldives except Male’.

One might be forgiven for thinking that there might be a problem in availability of land elsewhere in the country for urbanization. The land reclaimed in Hulhumale initially has 200 hectares. However there is naturally available land in L. Gan and Addu Atoll, with more than 600 hectares! In addition Hanimadhoo from thiladhunmathi atoll, in Northern Maldives have more than 300 hectares. By 2015, full reclamation produced 400 hectares of land in Hulhumale when even Fuvahmulah Atoll in South also has more than 490 hectares of naturally available land ready for development. Apart from Male the most populous atoll in the Maldives is Addu atoll with a registered population of more than 30,000 which is more than the population of reclaimed Hulhumale which stands at about 14,551 as per temporary census (2014) data.

In fairness the government of former president Excellency Maumoon Abdul Gayoom did declare they will develop L.Gan (largest naturally occurring land of more than 600 hectares) to the same level as Hulhumale near capital city. However for some reason while implementation of Hulhumale Development project went at full speed the development project for L.Gan looks stalled. The current government has recently declared that, 2nd phase of Hulhumale will enable resettling of 200,000 people making total population of the city 400,000 by completion of the project! The total population of Maldives as per latest census (2014) is 344,023 which means that all Maldivians will be crammed into 400 hectares of land. Instead of dispersed island nation it will be an emirate with everyone living in one tiny city!

Among all this chaos on atoll development a new Constitution was passed in 2008 to promote decentralized governance in Maldives. For a brief period of time many islanders believed that the new Constitution followed by Decentralization act will empower them to develop their islands and atolls on their own without relying heavily on central government.

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6 Special Rapporteur on adequate housing Raquel Rolnik (2010)
7 Table 1.5 : AREA, POPULATION DENSITY AND DISTANCE TO MALE’ AND ATOLL CAPITALS, BY LOCALITY, Statistical year book of Maldives 2011
8 Tale of two cities: The difference between rhetoric and commitment, (2014)
9 Speech by president of Maldives Hon. Yameen Abdul Gayoom on 15th January 2015 on the occasion of inauguration of 2nd phase of Hulhumale development, Highlights in English

The Conference will take place under the auspices of General Secretariat of the Aegean Islands Policy
and central decision making. Like L.Gan project, government seems reluctant to fully implement decentralization law giving powers to island councils formed as per Decentralization Act. A UN report therefore declared that Maldives is more centralized after constitution stating\(^\text{10}\)..

"Island Councils have no economic freedom and no incentives to support innovative economic activity. Many Councils feel their hands are tied and all that decentralization has brought about is additional costs (councilor salaries) and less revenue. Even though the D Act allows them to operate businesses it appears that central government is preventing them from doing this. So currently, the Island Councils are financially and fiscally disempowered, many of the Councils visited want to operate businesses but central government had not approved this".

The report recommends

*In some areas of Maldives if Councils were given the space to pursue economic programs and make use, within the confines of tight regulations, financial instruments they would be able to stimulate local economic development and create jobs. This could result in a range of benefits and create an environment in which the quality of social services could improve.*

None of these happened and recent developments have forced many concerned islanders like myself to realize that that we are **forced to migrate** abandoning our atolls to pave way for commercial use of our land!

To this effect, Laws that were recently enacted include

1. Allowing lease of islands for 99 years to private investors to build resorts
2. Introduction of Special Economic zones (SEZ) that threatens local governance and also allow corporate ownership and rule of Maldivian islands, atolls (in SEZ)
3. Allowing private investors to own 50% of land reclaimed to the person/company who claims land in the Maldives
4. Amendment to the Constitution-clause 251 allowing foreign investors to own land in Maldives

Result of these amendments shows developers and few oligarchs who control tourism industry in the Maldives and even some foreign countries such as China and Saudi\(^\text{11}\) Arabia are getting what they want: Beautiful islands with pristine beaches free of locals even nearby!

\(^{11}\) "This Will Make the Country a Chinese Colony", 2015, The Diplomat
The locals will be living in flats in reclaimed land and artificial beaches! Why would a government and parliament that depends on popular vote take such a drastic course of action? It is often said that any government in Maldives which falls from grace of few oligarchs who control tourism industry will bite the dust! A brief look at world headlines on Maldives will show that it is plagued by political turmoil and fighting for power! Since the people of Maldives control little resources (uninhabited islands) and power to use them solely rests on central government, any entity that controls central government can control all resources!

“The push towards Male’ and Greater Male’ (Maldives capital) is at the cost of our identities as a nation of dispersed islands” Says Salma Fikry a local governance specialist and advocate.

A book named “Falhu Aliran muy” in Maldivian language Dhivehi (Abandoned Golden Pearl) showing grievances of Maldivian islanders mainly with regard to, development induced forced migration with policy recommendations are to be published in March this year! This book will show information of our most valuable resource: the islands, its size, population, migration, uninhabited islands. It also explores changes to age old industries in the Maldives such as fishing, agriculture, tourism and participation of atoll population in such industries. Islands in atoll of Maldives are even more isolated due to lack of transport within and outside atoll. In the atoll, till very recently there isn’t a way to reach an island even within a distance of 5 minute boat ride! Hence statistics and information on atoll transport are also included in the book.

“Falhu Aliran muy” also gives a brief history of atoll economies, “development”, changes in livelihood and way forward. It also highlights consequence of development induced forced migration and congesting capital city Male’.

Finally it concludes by exploring these two questions;

1. What are the options to minimize development induced forced migration in Maldives and reinvigorate atoll economies?
2. How could we “the islanders” or “Raajjetheremehun" return home to our very own beautiful islands?

I hope Maldives exit as an island nation for thousands more years to come...

The author of the book Ms. Muna Mohamed is born in Thiladhunmati Atoll in Northern Maldives and currently resides in capital Male’.

12 A term used in Maldivian language Dhivehi to describe anyone born outside capital city Male’
23  Panel: A Contemporary Odyssey to Islands of Plastic: New Myths, New Realities, and Plastic Pollution

There is a reason Sir Thomas More imagined Utopia as an island. Its great virtue is, to state the obvious, its “insularity.” It is self-contained, has its own integrity—which includes the presence only of those individuals, and only those practices, that are deemed right for the sustainability of a utopian common-wealth. It is remote, its exact location hidden in the expansive vastness of the oceans, and away from the trade routes that might bring invasion, and change, the fall from utopian grace. From the virtual reality of the “idea/l” of Utopia means that it can sit, jewel-like, in static perfection, its shores unthreatened, its people happy, its lands sustaining and its economies sustainable. Its insularity is the basis of its integrity. Utopia will remain perfectly as is, and, in More’s vision, permanently defensive, to ensure permanent integrity. But if no man is an island, no island is either. Real islands today, no matter how remote, no matter how perfectly “utopian” a visitor might describe them it, find themselves unable to defend their borders from an unnatural invasion by so-called marine debris, or what the members of this panel refer to as “plastic pollution.”

Approaching the crisis from three directions are two visual artists and one literature scholar who have been working to communicate the epic proportion of the inundation of plastic trash in our marine environment. Each panelist will speak for 10-15 minutes, with a 10-minute response from a fourth activist/artist/conservationist.

Artists Pamela Longobardi (professor of art, Georgia State University) and Dianna Cohen, who is also CEO of Plastic Pollution Coalition, will describe their partnership in Plastic-Free Island (PFI), a ten-year awareness-to-action project committed to preserving the health and beauty of island environments. For the last four years, Longobardi and Cohen have been developing a model of community engagement through art, education, and activism, on the island of Kefalonia. The PFI projects works with citizens, businesses and art centers not only clean up their islands, but just as importantly, to address their own “plastic footprints.” Island stakeholders learn about plastic’s hazards to human health, to environmental and ecological health, and to a sustainable tourist economy on which so many depend. Kefalonian citizens and business owners alike have, through the PFI initiative, created their own effective plastic-reduction plans that address plastic’s multi-dimensional toxicity: to human and non-human creatures; to delicate island and marine ecosystems; to an island identity that is disrupted by the signs of global domination by a wasteful consumer culture. As activist partners and artists each in her own right, Cohen and Longobardi will describe on their own discoveries of “difference that art makes” in, and for, a world that is in-toxicating itself.
As a feminist scholar of utopian and dystopian literature, Jennifer Wagner-Lawlor has long been attentive to the figure of “the island” in narrative, from ancient epic to contemporary science fiction and speculative fiction. The art and literature of ecological crisis, with a focus on climate change and global plastic pollution, draws us anew to “the island” as a utopian figuration under threat through literal inundation: sea-level rise, and the often-dubbed “tsunami” of plastic. In her talk Wagner-Lawlor, who is also an Ambassador of and blogger for the Plastic Pollution Coalition, explores the notions of plasticity, utopia, and myth in contemporary narratives (in literature and in art), to argue that a new iteration of epic narrative, a contemporary odyssey, is emerging from aesthetic responses to ecological crisis.

The panelists:

1. Dianna Cohen, visual artist, and CEO of Plastic Pollution Coalition (www.plasticpollutioncoalition.com).
2. Pamela Longobardi, Distinguished Professor of Art, Georgia State University (www.pamlongobardi.com).
3. Jennifer Wagner-Lawlor, Associate Professor of Women’s Gender, and Sexuality Studies, and English at Penn State University; President, The Society for Utopian Studies (www.utopian-studies.org).

Keywords: plastic pollution; environment; tourism; sustainability; community art and education.