Unbalanced Development and Peripheralisation Processes: a Testing Phase to Map Studies

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Abstract: In many regions, an unbalanced dichotomic development based on core and peripheral areas has increased territorial inequalities affecting places, communities and economies. The peripheralisation processes are causing several disadvantages, in terms of socio-economic negative trends, abandonment of cultural heritage and increasing of environmental risks. The CNR IRISS research aims at investigating approaches to contrast marginalisation trends and support balanced development processes. Starting from a first screening of scientific literature, different fields of study have emerged, ranging from regional sciences to geography and urban studies, from economics to social studies, and different terms have come out such as internal areas, inland areas, and inner peripheries. The aim of this research phase is to implement a systematic literature review to explore the multiplicity of terms related to unbalanced development and peripheralisation processes, to investigate possible connections with different scientific disciplines and/or geo-political contexts also by analysing the evolution of the debate over time. This work presents a testing phase aimed at verifying the adequacy of the selected methodology and selected items and at sharing them with the scientific community in order to consolidate and enrich the methodological framework, and to organise the follow-up activities.

Keywords: territorial inequalities, peripherality, systematic literature review, data collection

Introduction

Reducing territorial inequalities is a key challenge for achieving sustainable development strategies, as highlighted by international scientific debate and political agenda. In many contexts, socio-economic and political dynamics have excluded some territories from mainstream activities, increasing gaps within regions between core areas and peripheral areas. The dichotomy between leading and declining areas results in negative trends for the second ones, in terms of abandonment and depopulation, lack of jobs and opportunities, reduction of essential services, accessibility issues. These processes produce negative impacts on well-being and quality of life of the local communities and contribute to the increasing vulnerability of the historic heritage and the environmental resources.

The ongoing research project "Innovative Strategies for Regenerating Small Villages and Inner Areas" deals with this debate by focusing on place-based regeneration strategies in territories that suffer marginalisation processes, with a specific in-depth focus on Italian context in which the inner areas amount to about 60% of the national territory. In these contexts, landscape represents a relevant asset as demonstrated by the high presence of excellent sites such as Protected Areas, National Parks and Sites of Community Importance. Starting from

this evidence, the research focuses on landscape to verify its role as driver for activating regeneration processes in inner areas, through a co-design approach aimed at improving synergic planning between top-down policies and bottom-up initiatives (Oppido *et al*., 2019; Oppido *et al.*, 2018). The research activities are carrying out both by developing a first empirical case study of the Italian context through an Action Research protocol and by deepening an international theoretical framework. The key goal is to explore how to implement approaches for contrasting marginalisation trends and supporting balanced development processes, within the framework of the Italian National Strategy for Inner Areas (Barca *et al.*, 2014) that promotes a place-based approach for regenerating these contexts. The Italian inner areas have been identified through a methodological study based on the distance (in minutes) from the centres offering basic services and they are characterised by demographic decline, ageing population, low economic performance but also by a relevant territorial capital – human, cultural and natural capital – often untapped. The Strategy is implemented within a multilevel framework, involving national, regional and local tiers, considering local communities key actors for the goals, and it is part of the Cohesion Policy, according to the European expectations aimed at supporting all regions in enhancing their economic and social potentialities (Barca 2009; Commission of the European Communities 2008; OECD 2016). These policies recognise the unbalances between central and marginalized areas as a key issue in Italy and Europe in terms of social inequalities as well as of risks of losing the inestimable cultural and environmental value of the resources present in human settlements that over time have lost the critical mass capable of attracting and retaining population and productive activities. This known problem, which has been dealt with in literature and in local, national and transnational policies, requires a deepening of the ontological framework and of the interpretative aspects, in order to have a solid working basis, even in the linguistic and geo-political differences.

Building the theoretical framework of the research, literature review has highlighted the presence of multiple terms in scientific and political debate such as marginal areas, peripheral areas, inner areas, inner peripheries, inland areas – all terms referred to unbalanced development dynamics and peripheralisation processes (Kinossian, 2017; Küpper *et al.*, 2017; Lang *et al*., 2015; Wirth *et al*., 2016).

With reference to this terminological multiplicity, the aim of this research phase is not to establish a state of the art about a specific term but to implement a systematic literature review to explore the selected terms related to possible connections with different scientific disciplines and/or geo-political contexts also by analysing the evolution of the debate over time.

The first focus developed by the researchers was about the concept of "peripherality", of which the core discussion concerns levels of accessibility (ESPON, 2009; Schürmann & Talaat, 2000; Spiekermann & Wegener, 2006; Vickerman *et al.*, 1999). This spatial meaning has been progressively linked to socio-economic performances, connected with distance from the main centers of activity (Kühn 2015). This change determines that places not geographically remote could be peripheral in terms of relationships with economic networks, highlighting the role of lack of connectedness and weakness of interaction (Copus *et al.*, 2017). From a first screening of scientific literature and policy documents, the conditions of marginalisation are linked to the exclusion from physical, social, economic, institutional and cultural network (ESPON 2017).

This relationship with socio-economic dynamics, rather than geographical characteristics, makes these processes changeable and transitory. However, it is useful to point out that overemphasizing the analogy between peripherality and socio-economic performance leads to confuse these territories with lagging areas (Copus & Noguera, 2016). «[…] the concept of inner peripheries which is emerging is not simply a Central European analogue of the kind of "economic potential" peripherality observed in Northern and Western Europe, but rather one which has more in common with the discourses on social exclusion and well-being» (Copus & Noguera, 2016). The discussion progressively focused on the complexity of variables to be considered, not simply related to location: «Geographical remoteness, as such, therefore does not cause marginalisation, nor does central location promise prosperity» (Bock, 2016, p. 5). From this perspective, «[…] the peripheries are

considered the outcome of complex processes of change in the economy, demography, political decision-making and socio-economic norms and values» (Naumann & Fischer-Tahir, 2013, p. 9), by highlighting the role of inadequacy of infrastructure, health facilities and educational services in terms of quality of life. These conditions trigger negative trends such as ageing, out-migration, reducing human capital and therefore the capability to generate local development, with the risk of progressive territorial de-generation processes (Sassen 2014).

Terminological differences also derive from different geographical areas. «However an additional source of terminological confusion arises between the Anglophone research tradition, which is used to the idea that the "periphery" is indeed around the (Northern and Western) edges of the country, and that of the Mediterranean and Iberian countries, where major cities are located on the coast, and peripherality is associated with "the interior", or "inner areas"» (Copus & Noguera, 2016).

This brief overview shows the richness of the debate and the multiplicity of the implications related to the spatial and non-spatial features. The complexity of the topic is also highlighted by its multidisciplinary, including several disciplines involved such as regional and urban planning, economics, social studies, environmental studies, transportation. The screening of literature and political documents has allowed identify the recurring terms, obtained by combining the adjectives inland/inner/interior/internal/marginal/non-core/peripheral with the substantives area/context/territory/landscape and their plural.

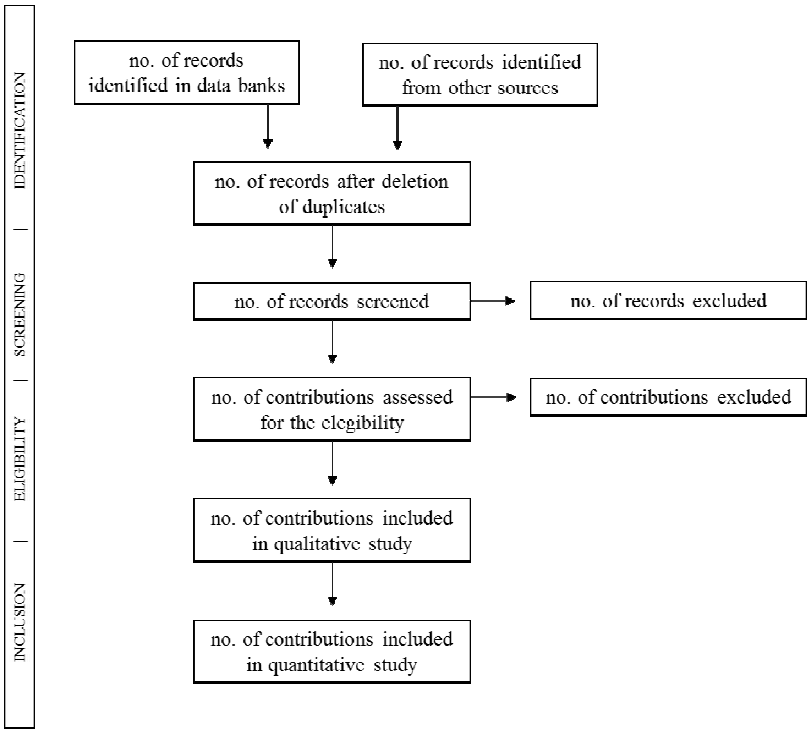
Following this introduction, the paper describes the adopted methodology for a systematic literature review, illustrates the data collection, analyses the first findings in order to discuss with scientific community about the current testing phase and to program the research follow-up.

Methodology

The systematic literature review is a method used to identify the state of the art in relation to specific research topics. Most used in clinical research, it represents a way to develop studies characterised by integrity and transparency. In the case of this work, this method has been used to: explore and deepen the multiplicity of terms within different scientific disciplines and geo-political contexts, reflect about the topic through studies and research developed over time, and propose original research initiatives to contribute knowledge in this research and operative scope (Perroni et al., 2015). Specifically, this work describes a testing phase of the methodology to be shared with the scientific community in order to consolidate and enrich the methodological framework, and to refine investigated terms.

A codified systematic review consists of «[…] a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review. Statistical methods (meta-analysis) may or may not be used to analyse and summarise the results of the included studies» (Glossary of Cochrane Community 2019). The flow chart in Figure 1 describes the adopted systematic review approach coherently with the PRISMA Statement (Moher et al., 2015), which includes 4 phases: identification, screening, eligibility, and inclusion.

Figure 1 – Flow chart for a systematic review (Moher et al., 2015)



Data collection

Researchers structured the data collection process in order to explore the multiplicity of the selected terms within different scientific disciplines and/or geo-political contexts, and to propose an original perspective in the field of place-based regeneration.

As already anticipated in the introduction, authors' previous studies highlighted a preliminary set of terms on which apply a first testing round of a systematic literature review. In order to have the highest level of alternatives starting from these emerged items, researchers have combined all adjectives (inland, inner, interior, internal, marginal*, non-core, peripher*) with multiple substantives (area*, context*, territory*, and landscape*) (Table 1).

Table 1 – Matrix of adjectives and substantives creating terms for the testing phase

	inland	**inner**	**interior**	**internal**	**marginal**	**non-core**	**peripher***
area*	inland area*	inner area*	interior area*	internal area*	marginal area*	non-core area*	peripher* area*
context*	inland context*	inner context*	interior context*	internal context*	marginal context*	non-core context*	peripher* context*
territor*	inland territor*	inner territor*	interior territor*	internal territor*	marginal territor*	non-core territor*	peripher* territor*
landscape*	inland landscape*	inner landscape*	interior landscape*	internal landscape*	marginal landscape*	non-core landscape*	peripher* landscape*

Working on a systematic review means to search multiple databases doing a laborious and time-consuming activity with a successful outcome. Taking into account the research of Bramer et al. (2017) about the optimal combination of databases needed to conduct efficient searches in systematic literature reviews, authors should have selected at least Web of Science and Google Scholar to guarantee adequate and efficient coverage of the research topic. The Web of Science platform offers to scientists a tool to develop, modify and save structured advanced research – called as query – through field tags, Boolean operators, parentheses. A plus value of this platform is the opportunity to frame the query within the Web of Science Categories, permitting to filter subject categories of every journal and book covered by Web of Science Core Collection. This is an important point to make specific query, avoiding a massive collection of suitable contributions. The Google Scholar's advanced research does not enable to refine results because it is not possible to isolate subject categories but only to search for author or journal/book. Representing this work a phase of testing, authors have used only the Web of Science putting off the manual research on Google Scholar for a more consolidated phase of the research.

Researchers structured the Web of Science search considering:

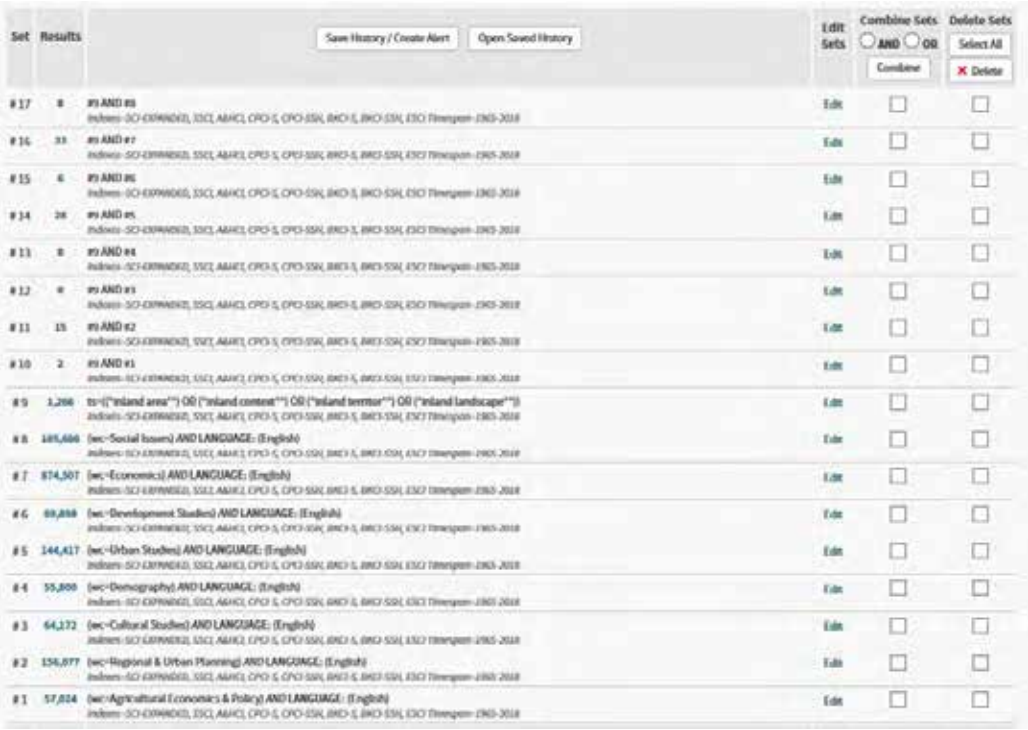
- only works in English language to guarantee an international profile of the research;
- the maximum timespan (1965-2018) covered by Web of Science to include the policy evolution;
- scientific articles, books, book chapters and conference proceedings;
- all databases from the Web of Science Core Collection (Citation Indexes).

Researchers started the advanced search organising specific queries for all the eight subject categories selected: Agricultural Economics & Policy, Regional & Urban Planning, Social Issues, Cultural Studies, Demography, Urban Studies, Development Studies, and Economics. After, they proceeded to draw up queries for each column of the matrix (Table 1), for example:

ts=(("inland area*") OR ("inland context*") OR ("inland territor*") OR ("inland landscape*"))

and organised a separate history for each ones in which it is combined with every subject category (Figure 2).

Figure 2 – The saved history for INLAND query



The result of this operation is showed in the Table 2.

Table 2 – Results from the combinations of selected queries within selected subject categories

		Agricultural Economics & Policy (56,289)	Regional & Urban Planning (155,520)	Cultural Studies (63,692)	Demography (55,729)	Urban Studies (143,847)	Development Studies (64,075)	Economics (868,903)	Social Issues (185,169)	TOT
		#1	#2	#3	#4	#5	#6	#7	#8	
inland area* inland context* inland territor* inland landscape* (1,265)	*A	2	15	0	0	28	6	33	0	84
inner area* inner context* inner territor* inner landscape* (850)	*B	0	20	0	0	37	1	7	2	67
internal area* internal context* internal territor* internal landscape* (692)	*C	1	7	0	0	12	4	7	0	31
interior area* interior context* interior territor* interior landscape* (389)	*D	0	3	0	0	6	2	10	0	21
marginal* area* marginal* context* marginal* territor* marginal* landscape* (1,752)	*E	21	31	5	1	29	12	46	6	151
non-core area* non-core context* non-core territor* non-core landscape* (27)	*F	0	0	0	0	1	0	0	0	1
peripher* area* peripher* context* peripher* territor* peripher* landscape* (2,600)	*G	8	100	2	13	117	30	86	5	361
TOT		32	176	7	14	230	55	189	13	**716**

Authors used the software Mendeley to archive contributions. The programme is directly linked to Web of Science so the migration of the data was easy and automatically excludes duplications. This operation permitted to move from a package of supposed 716 units to 461 ones. All the data related to these latter were transferred to an Excel grid structured as follow and in which elements were input in chronological order with an assigned ID (Table 3).

Table 3 – Organisation of the collected data

Category	Collected data
General information	ID *from #001 to #461* Typology of the product (drop-down menu) *journal article* *book* *book section* *conference proceeding* Date *from 1968 to 2018* Title of the product Abstract Name and surname of the first author Affiliation of the first author Name and surname of the second author Affiliation of the second author Name and surname of the editor/s Affiliation of the editor/s Title of the journal/book/conference Name of the conference Volume Issue Keyword Page Publisher City of the publisher DOI code ISBN code
Discipline scope (drop-down menu)	Urban and Regional Studies Geography Social Studies Economics Transportation Environment Multidisciplinary
Geographical scope (drop-down menu)	Europe North America South America Central America Asia Africa Australia any
Typology of the contribution (drop-down menu)	Theoretical approach Case study Methodological approach Project/program/policy
Collected items (drop-down menu)	Inland area* Inland context* Inland territor* Inland landscape* Inner area* Inner context* Inner territor* Inner landscape* Interior area* Interior context* Interior territor*

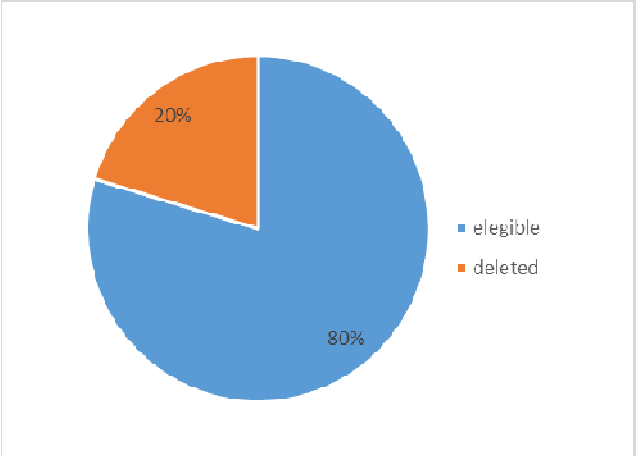
	Interior landscape* Internal area* Internal context* Internal territor* Internal landscape* Marginal* area* Marginal* context* Marginal* territor* Marginal* landscape* Non-core area* Non-core context* Non-core territor* Non-core landscape* Peripher* area* Peripher* context* Peripher* territor* Peripher* landscape*

In order to complete a testing phase, the first 100 lines with a published abstract have been evaluated for the eligibility and then included in a quantitative synthesis.

Findings of the testing phase

Authors developed preliminary quantitative findings of the testing phase in which the first 100 units with an edited abstract were assessed for the eligibility (from #027-1990 to #137-2008). This sample showed 80% of eligible units and 20% to be deleted from the database mainly because, nevertheless the subject category and query was respondent, contents were not relevant for this research (Figure 3). For this reason, the discussion proposed below was developed on 80 units developed from 1990 to 2008.

Figure 3 – Percentage of eligible contributions



First general findings were developed on the four specific categories: discipline scope, geographical scope, typology of the contribution and typology of collected items (Figure 4-7).

As expected, the main discipline scopes were Urban and Regional Studies and Economics, followed by Social Studies and Multidisciplinary Studies. Any units were collected in Geography, Transportation, and Environment discipline scopes (Figure 4). In the timespan tested, the scientific debate was concentrated in European countries and in Asia (mainly in China), followed by Africa, North America and Australia with similar concentration of

units (Figure 5). This debate was developed mainly through a case study approach while there was a lesser percentage of theoretical approach testifying the lack of defined framework of research topic (Figure 6). With regard to the collected items, four of them emerged as the most collected: peripher* area*, marginal* area*, inland area* and inner area*. During the timespan 1990-2008, the item peripher* was cited in almost the half part of the units (Figure 7). In this set, the items recalling the concept of the urban periphery were excluded – coherently with the research aims.

Figure 4 – Frequency of discipline scope

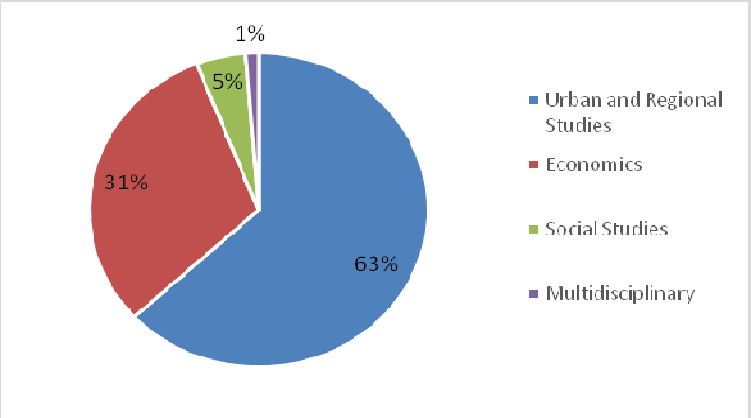


Figure 5 – Frequency of geographical scope

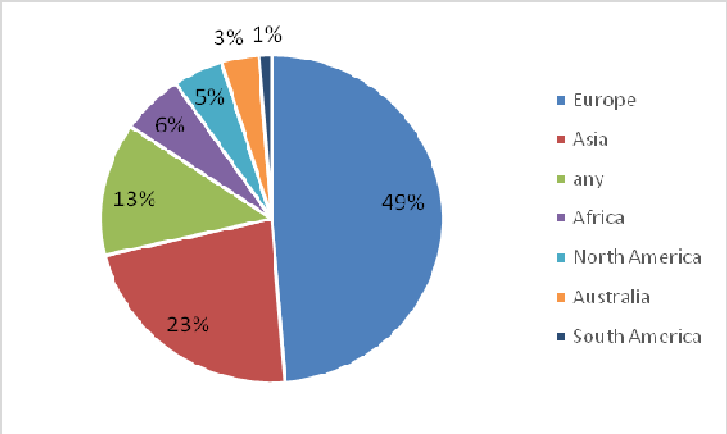


Figure 6 – Frequency of contribution typology

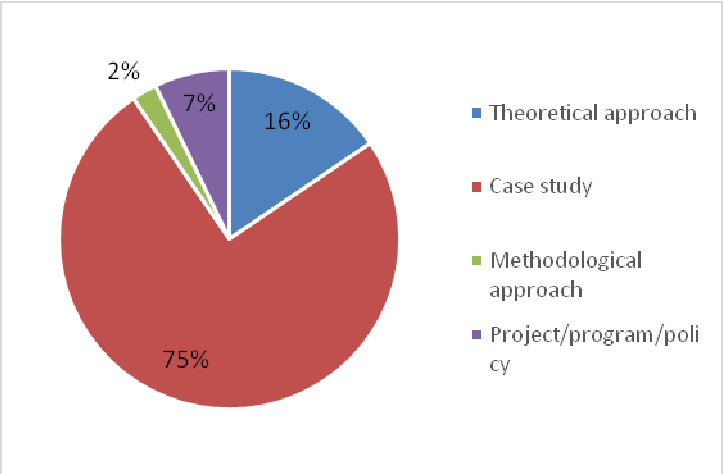
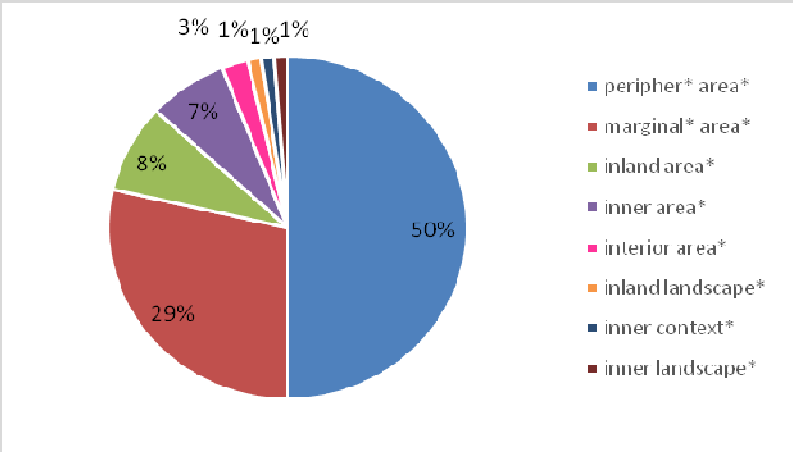
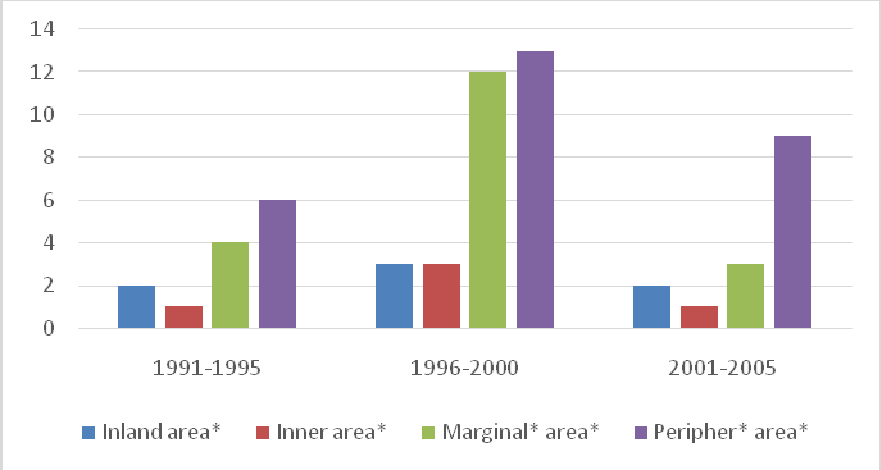


Figure 7 – Frequency of collected items



Starting from these first findings, authors considered to dedicate a specific quantitative synthesis of the four most collected items: peripher* area*, marginal* area*, inland area* and inner area*. In terms of item frequency during time, authors selected three five-year timespans: 1991-1995, 1996-2000, 2001-2005. Constantly, peripher* area* and marginal* area* exceed the others with a prevalence of the first one. Related to these two items, the scientific production is concentrated during the timespan 1996-2000 (Figure 8). In the next phases of the research, it will be clarifying to explore this quantitative result through a qualitative analysis.

Figure 8 – Frequency over time of the four most important items



To have an idea about frequency of the four categories until now collected, a brief quantitative synthesis is presented in Table 4.

Table 4 – A quantitative synthesis of the most collected four items

Item	**Timespan**	**Typology of product**	**Discipline scope**	**Geographical scope**
inland area*	1993-2005	case study	Economics	Asia
inner area*	1995-2007	case study	Urban and Regional Studies	Europe
marginal* area*	1990-2007	case study	Economics and Urban and Regional Studies	Europe
peripher* area*	1992-2008	case study and theoretical approach	Urban and Regional Studies	Europe

Discussion and Follow-up

The aim of the research is to explore multiple items emerged from the literature review, referred to unbalanced development dynamics and peripheralisation processes. This paper deals with a testing phase of a systematic literature review in order to verify the adequacy of the selected methodology and selected items with regard to the research goal. With this purpose, authors presented the methodology, the data collection and the testing phase to start discussion and to organise follow-up activities.

First evidence from the testing phase allows to highlight presence and frequency of selected items in discipline scope, geographical scope, contribution typology. With regard to the four most important items, frequency over time has been pointed out and the quantitative synthesis shows that the European countries is the main context involved in the debate and the discussion regards mainly case studies. By exploring the next timespan (2009-2018), it will be interesting to verify if theoretical approaches is codified, e.g. after the ESPON program started to affect the issue of inner peripheries.

In addition, the testing phase has pointed out that the Italian context has affected the first selection of items by the researchers. Analysis of some contributes, collected through the systematic literature review, shows the

presence of additional terms referring to specific phenomena in other continents, such as inner city in the Asian context. This gap will be filled in the next phase.

With reference to the follow-up phase, the research agenda includes the following activities:

- Sharing this work with the scientific community, first during the Aesop Annual Congress 2019 in Venice and then through research social networks (Academia, ResearchGate), in order to consolidate and enrich theoretical and methodological framework, and items investigated. Later, this work will be implemented through consultation of scholars and politicians.
- Exploring other studies about systematic literature review that can guide the methodological phases.
- Hypothesising to amplify the set of substantives, now referred mainly to the physical environment (area, context, landscape, and territory), with more social items, e.g. including community.
- Consolidating the set of items and phases of the methodology and re-apply the methodology also including the manual Google Scholar's advanced research for all the timespan 1965-2018.

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