The self-government approach to the planning of the Gran Sasso Laga Park

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Abstract
Thanks to the substitutive function of every other planning tool, recognised by law for any Italian park plan, the Gran Sasso Laga National Park Plan was conceived, within the Italian system of hierarchical cascade planning, as vice versa a non hierarchical coordination tool of a co-planning process based mainly on self-government patterns of the communities that live and act in the park territory. Such a co-planning process can be considered as an inherent part of the broader co-evolutionary dynamics of relationships between humans mediated by non-human elements of the environment, according to a specific interpretation of Socio-Ecological Systems (SES), which we in turn interpret as Socio-Cultural-Ecological Systems (SCES), recognising humans as eco-factors and referring to the eco-diversity of SES/SCES rather than simply their biodiversity.

Keywords
Natural parks; Self-government; Territorial co-planning; Coevolution.

1. Introduction

The approach followed in planning the Gran Sasso Laga National Park, in which the authors participated through a collaboration agreement between the University of Molise and the Park Authority, envisions the park plan as a coordination tool for the territorial co-planning process. The conceptual framework critically examines the technocratic and economistic approaches to environmental issues, which are becoming increasingly prominent. These approaches often lead to externally directed and centralised environmental protection policies aimed at reducing human activity in natural contexts. In addition to exacerbating inequalities among different communities in defining autonomous development paths, these approaches do not recognize the co-evolutionary role of the human eco-factor within ecosystems. As a result, they do not allow the protection of ecodiversity, which also derives from human action.

Instead, the Gran Sasso Laga National Park is conceptualised as a Socio-Cultural-Ecological System (SCES), in which the complex of (human) social relations mediated through interactions with non-human entities is crucial. The interactions between human and non-human factors in the cooperative SCES, which can also be considered a landscape (sensu European Landscape Convention), also include the processes of co-planning and territorial co-design, thereby establishing coevolutionary paths within the SCES.

This innovative approach has been fitted into Italy's existing institutional and regulatory framework for environmental planning, which, on the other hand, is really rigid and unwilling to rapid changes. Some agreement tools encompassed in the co-planning and territorial co-design process have been linked to objectives of the National Strategy for Biodiversity, supporting the development of a continuous co-planning and co-design process of the park's territory.

In this way it was intended to trigger a dynamic, flexible, and adaptive method for managing and envisioning territorial evolution, utilising tools that can contribute to the activation of forms of commoning of environmental resources.

2. Environmental policies and technocratic approaches

As a consequence of the increasing prominence of environmental issues in the public, scientific and governmental debate, particularly in the Western world over the last decades, numerous

policies and measures have been introduced to mitigate the negative effects of human activities on environmental balances.
A common element in policies developed by institutions at various levels is the persistent underlying division between the categories of human society and natural environment. This division simplifies the complex relationships and socio-ecological balances between humans and their environment, often reducing them to paternalistic-conservationist approaches or technical-functionalistic tools.
The first group includes policies based on the principle that humans must take care of nature and which tend to exclude, in whole or in part, the possibility of carrying out human activities in certain areas.
This approach suggests a view of nature as incapable of self-preservation and in need of human action to be protected (by man himself), in which it is considered as 'the nature of nostalgia, of conservation' (Fabbri, 2019, p. 115). This perspective emphasises the need to bring nature back to an original, untainted state, ignoring that nature 'has no origin and it is perfectly indifferent to our concepts of origin and purpose' (Baudrillard, 2019, p. 103).
The second group includes policies that support forms of valorisation of biotic and abiotic elements based on their usefulness for human survival and the financialisation of natural capital. This approach involves an ontological shift in nature, which goes from being 'the material basis of the reproduction of living things to a provider of biological or eco-systemic services' (Leonardi, 2017a, p. 183). While this concept has increased awareness of the value of natural elements for human life, it has also led to the creation of markets and institutional structures to support their functioning (PES - Payment for Ecosystem Services, carbon credits market, PPP - Polluters Pays Principle).
This process presupposes the creation of fictitious goods, corresponding to the services offered to man by natural elements, which can be sold or exchanged on the markets. Going beyond the strictly regulatory approach to resource consumption and pollutants release, these new valorisation mechanisms position natural capital as an active market factor (Iannuzzi, 2018).
In addition to the intrinsic criticality of the ontological change, the technical-economic approach to the environmental issue also poses problems of inequality. There are in fact large grey areas regarding knowledge and sovereignty over the goods included into the markets, which produce improprieties and accounting biases (Iannuzzi, 2018), as well as on the political fairness of economic-social compensations for the negative effects induced by polluters (Leonardi, 2017b).
While recognizing that these policies can lead, in general, to an improvement in the effects of human actions on environmental balances compared to those from the industrial era, it is necessary also to note that the persistent split between the human and non-human realms continues to reflect an anthropological need to establish dominion over natural things.

3. Environmental protection and neo-colonial approaches

The considerations on the critical issues emerging from technocratic approaches to environmental issues, as illustrated in section 2, are significant in the field of planning studies because they produce relevant effects on the organisation of land uses. This is particularly evident in the case of protected natural areas, which we can broadly define as those parts of territory (regional, national, or global) deemed necessary to preserve in their ecological form or functionality by limiting or inhibiting substantial human activities.
Studies on international contexts indicate a greater presence of protected areas where there are low-income communities, with reduced access to services and minimal political representation in government institutions (Hammer et al., 2012). These socio-economic vulnerabilities make such communities particularly exposed to authoritative environmental protection regimes imposed from above, which hinder the possibility that the communities themselves can

establish autonomous development paths due to restricted access to territorial resources (Hammer et al., 2012).
Through this large-scale compensation approach, according to which compensation can be made towards nature in some places (Magnaghi, 2010) for the environmental damage caused in more economically developed places, forms of spatial injustice are perpetrated, as it enables some populations to maintain high quality of life and consumption levels thanks to the imposition of development limitations on territories inhabited by weaker populations.
Environmental policies conceived according to dualistic, globalised and economistic approaches are configured as forms of cultural neocolonialism, in which solutions are imposed by the centres of power that rely on the ideology of centralised knowledge, which suppresses local knowledge, believing that 'it is possible to save nature regardless of the indigenous people or local populations who in reality are the only ones who can safeguard it' (La Cecla, 2019, p. 73).
The presence of such neo-colonial approaches is noted by many, even within ecological movements. For example, the KBA Partnership highlights the need for the 30x30 initiative (the international community's commitment to protect 30% of the earth's surface by 2030), signed by The High Ambition Coalition (HAC) for Nature and People, to ensure that the protected 30% is 'the right 30%'. This means that areas designated for protection should primarily be 'key biodiversity areas', since instead 'areas are often designated as protected or conserved where it is convenient rather than because they are important for conserving biodiversity. Protected areas tend to be created in remote places (...)' (Plumptre et al., 2021).
The challenges that environmentalism poses today, however, require the introduction of radically new relational paradigms between human societies and the natural environment (Guattari, 2019), which also recognize the central role of the recovery of local sovereignty in defining solutions (La Cecla, 2019).

4. A political ecology approach to planning
A substantial potential for supporting transformative change in the definition of spatial policies and planning practices lies in recognising human societies as eco-factors, that is, viewing humans as elements interacting equally with other non-human natural elements, rather than as separate entities affecting nature from an external standpoint. It means acknowledging that human societies exhibit behaviours with varying degrees of adaptability or maladaptivity (Mainardi, 2008), through which the human species is fully immersed within ecosystem dynamics (Soave, 2010) interacting via a 'ecological intelligence', that is, its ability to adapt biologically, technologically (Goleman, 2009), and culturally (Mainardi, 2001) to their environment. Through ecological intelligence, infinite local behaviours adapted to the specificities of the environment and adaptation of the environment to human needs have therefore developed, demonstrating the deep immersion of humans in ecosystem dynamics. Therefore, especially in the definition of spatial planning policies and practices aimed at leveraging transformative change, it is more useful to refer not just to biodiversity, but rather to the concept of ecodiversity. Ecodiversity operates at the landscape scale, accounting for the environmental complexity of organisms and processes, including biodiversity, environmental heterogeneity, and geodiversity, thereby incorporating the human eco-factor (Conti and Soave, 2006; Farina, 2001; Halvorsen et al., 2020; Jedicke, 2001; Naveh, 1994).
Incorporating ecodiversity into planning processes means considering land use organisation paths that foster human interaction with environment components and the development of local solutions that enable mutual adaptations, leading to the progressive enrichment of ecodiversity within the territorial system. To overcome technocratic and economic approaches to environmental issues, which, despite their effectiveness, carry intrinsic ethical-political issues, a shift in planning paradigm is needed to allow the proliferation of local experiences and

'particular cultures' through 'new contracts between citizens' (Guattari, 2019). Such a change can 'derive from a political and cultural choice' (Gorz, 2015), enabling social formations and individuals to interact co-evolutionarily with the environment, regaining sovereignty over land use practices through self-regulated forms of territorial planning.

5. (Protected) territories as Social-Cultural-Ecological Systems (SCES)

With regard to the above self-organising and coevolutionary processes, it is very useful to refer here to that specific interpretation of SES, Socio-Ecological Systems, which identifies them as a 'subset of social systems in which some of the interdependent relationships among humans are mediated through interactions with biophysical and non-human biological units' (Anderies et al., 2004), and in which the cooperative aspect of these relationships may be sometimes fundamental (Anderies et al., 2004). In particular, referring to the example of a fisherman who can change the outcomes of another fisherman's activities 'through the interacting biophysical and non-human biological units that constitute the dynamic, living fish stock' (Anderies et. al, 2004), it seems quite clear that the interdependence relationships between humans (fishermen) mediated by the common pool resource (CPR) (the fish stock) exist regardless if they take on a cooperative nature or not. But it is equally clear that the less the relationships take on a competitive or even conflictual nature, the more easily the sustainability of the living fish stock will be ensured. Regarding this last aspect, we believe it is useful to further develop the fruitful concept of SES mentioned above in the direction of those that we have proposed to define anew, not having found specific traces of it in the literature, such as SCES, namely Socio-Cultural-Ecological Systems. (De Bonis and Ottaviano, 2023). In the SES concept proposed by Anderies et al. (2004), the co-evolving unit coinciding with it, more or less cooperative, by definition cannot be homogeneous (cospecific), but must always be formed by different species. In other words, it cannot be delimited without including the non-human factors through which the human factors interact, moreover in a variable way depending on the human behaviour considered (Bateson, 1976). This means that it can be likened to both the landscape as defined in the ELC, European Landscape Convention - 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2000) - and to 'cultural landscapes' identified by UNESCO (1994) as those 'sites' created by the 'combined works of nature and man' (UNESCO, 1972), 'illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment ad of successive social, economic and cultural forces, both external and internal' (UNESCO, 1994, p. 13). Such assimilation to some form of landscape makes the 'cultural' aspect of the SES evident, which is self-evident considering the intimate interrelation between human and non-human entities that characterises them, and therefore authorises us to define them as SCES. But what really matters in identifying the landscape with the SES as defined by Anderies et al. (2004), and/or with a SCES, is the *advantage* of these concepts compared to the *objectifying* perspective found in other definitions of SES, which are still focused on an ecological system (external to us) with which the (our) social system interacts, as well as compared to the definition of landscape in the ELC, where the interaction between humans and nature shapes an objective entity (territory), which is then subjectively perceived by humans (thus shaping a landscape). In the concept of SES/SCES, instead, the distinction (and latent dualism) between objective/subjective disappears completely, making room for a notion of *mediation* entirely internal to social (human) relations. It is closer to this kind of *mediation* the UNESCO definition of cultural landscape when it refers to 'human society and settlement' and to *their* environment, despite the evocation, again latently dualistic, of both *external* and *internal* dynamics. However, our analogy is based on the complete abandonment of UNESCO's view of (few) cultural landscapes as *illustrative*, or as having 'outstanding universal value', to instead consider the

complex of SCES potentially extended to the entire territory (like the landscape in the ELC), as well as of its purely conservationist purpose.
In this regard, it should be noted that even in the field of nature conservation the mainstream seems to be a long way from a conception of SES/SCES like the ones mentioned above, as well from a vision that seeks to encourage the preservation of the natural environment through inherently protective human activities (Dematteis and Magnaghi, 2018).
About this, what we find particularly problematic is the fact that according to IUCN the primary management objective of a national park is that of ecosystem conservation and recreation. This unique alliance mirrors the prevailing attitude in the international arena towards cultural heritage. The tourist-recreational use of the latter is in fact generally considered as the only form of compatible utilisation of cultural resources, even though contrary evidence is becoming increasingly apparent in certain instances of overtourism. Our main concern, in this regard, is precisely the limited effectiveness of the exclusive association between conservation and recreation. Indeed, this association can be *sterilising* in terms of regenerating the natural and cultural heritage, as it fails to re-establish the relationships between people and nature by which they have been generated and/or sustained over time (De Bonis, 2020).

6. The Gran Sasso Laga Park Plan as a coordination tool for a continuous co-planning process

In order to counteract the above sterilising drifts, the Gran Sasso and Monti della Laga National Park Plan (hereinafter GSLPP) has been conceived since its inception to promote forms of autonomous initiative by social actors, provided that such initiatives align with the requirements for the protection and enhancement of the park area. Nevertheless, to achieve this objective, the relationship between the Park Plan and the Italian planning system needed to be carefully considered.
In Italy, urban planning (at municipal level), territorial (at provincial level), landscape, (at regional and state level): i) constitutes a *system*, composed of different interacting tools, ii) is *formal*, in the sense that it is defined by law as a permanent procedure of government activities (Mazza, 1996), iii) is *public*, i.e. it falls within the competence and responsibility of a public administration, iv) is *cogent*, i.e. it produces effects to which the actors operating in the planned territory must compulsorily conform, v) is *rigid*, i.e. every modification of a plan instrument entails the need to go through the entire approval procedure. Furthermore, and above all, the fundamental principle of interaction between the different elements of the planning system is based on the so-called *cascade hierarchy*, according to which the plan formed at a certain administrative level prevails (is *superordinate*) compared to the one formed at an immediately lower level (and the latter is naturally subordinate to the former).
But, within this general framework, the park planning presents a non-negligible peculiarity: in accordance with the law governing the establishment, management, and planning of protected areas (No. 394 of 1991) the park plan, a unique case in the national planning system, *substitutes* for all other plans concerning the territory of the protected area, instead to be hierarchically superordinate to them. The sole exception to the substitution regards the provisions for the protection of the landscape contained in the landscape plan (not the latter as a whole).
It is precisely on the basis of such a substitutive nature of the park plan, in combination with other legislative devices, that we have been able to set up the GSLPP as a non-hierarchical coordination tool, inside a hierarchical planning system, for a continuous co-planning process, based mainly on patterns of self-government of the communities that live and/or act in the park territory.
Title III of the Zoning Bylaw, 'Planning Process', is the plan document that most reflects that pattern, while fully adhering to legal requirements for format and content. In fact, it defines the GSLPP as a 'planning coordination tool' aimed at incorporating and enhancing any other plans

and project initiatives developed within the park territory, that pursue the management objectives and policies for areas referred to in Title II of the Zoning Bylaw, or at least do not conflict with them. These plan and project initiatives can be: 1. general and implementation urban plans; 2. detail plans or territorial projects; 3. specific interventions for the protection, enhancement and compatible use of the park's environmental resources, requiring clearance by Park Authority.

The planning process is thus aimed at creating a circular connection between the environmental planning of park sites and the environmental planning of the entire park region, through the interpretation of local authorities' plans, detail plans/territorial projects and specific interventions projects not as merely *executive* tools, but as feedback devices capable of initiating the process anew continuously (Rolli and De Bonis, 2001).

In other words, this strategy recognizes the *substitutive* nature of the park plan as an opportunity to fully implement the principle of subsidiarity in physical planning, transferring responsibilities and possibilities from the Park Authority to other entities. Within this framework, the aspects of vertical subsidiarity (predominant in co-planning agreements) and horizontal (dominant in specific interventions clearances) tend to blend into a form of subsidiarity that could be described as 'holistic' (De Bonis, 2019) or 'circular' (Zamagni, 2018).

In this regard, however, it is necessary to clarify that we did not intend to assimilate these forms of subsidiarity characterising the GSLPP to any kind of *participatory* planning (or *collaborative*, *communicative*, etc.); i.e. to any kind of planning, in which the multitude of interactions are once again reduced, arbitrarily and also unrealistically, to a dyadic interaction (Mandelbaum, 1986) between planners and the planned, promoters of participation and participants, etc.; and in which professionals, technicians, consultants, are the sole operators of knowledge production and use (Crosta, 1998). On the contrary, in the GSLPP we did intend multiplicity as the coexistence of multiple forms of knowledge (professional and non-professional) and multiple forms of action by individual actors or groups of actors (Crosta, 1996).

7. The co-planning of the park as a framework for territorial self-government

The innovation introduced in the GSLPP acknowledges the double evidence that the classic planning system, envisaged by Law 394/1991, is mostly unimplemented, and that the effectiveness of the co-management experiences of protected areas between environmental authorities and local communities is well-documented (García López, Concepción and Torres Abreu 2018; Iannuzzi, Mourato and Santos, 2020; Oldekop et al. 2015; Pallares-Blanch, 2012).

Building on these observations, the GSLPP proposes a significant advancement that could extend beyond park planning, interpreting planning as a co-evolutionary process in which the planning action is implemented through continuous formation of territorial self-government tools. These tools enable the autonomous definition of the multiple practices that express the relationality between human societies and the environment. Coevolutionary approaches redefine the planning system in a trans-scale and nonhierarchical manner, implemented through detail and thematic plans in which territorial entities interact with the Park Authority to define territorial visions, realising 'forms of multi-actor, multi-sector and multi-functional contracts and agreements to address the governance of the territory as a common good' (Magnaghi, 2015, p. 151). A potential application of these paradigms was prefigured in the context of the approval process of the GSLPP, and in particular in the definition of the monitoring plan envisaged in the environmental report of the Strategic Environmental Assessment (SEA). In this circumstance, it has been decided to consider, as indicators of the effectiveness of the PP, the arrangement of agreements on detail plans and territorial projects related to the GSLPP and the NSB objectives. Some land management tools usable for this purpose were identified, referring to Section 24 of the Zoning Bylaw, which describes potential plans and projects that could be

implemented in the park. Connecting the SEA monitoring plan and the PP objectives has been conceived as a way to support the realisation of the planning process scenario envisioned in Title III of the PP.
These detail plans and territorial projects serve as frameworks for practices that are continuously redefined, in which planning tools rely on dynamism and flexibility to respond effectively and quickly to socio-environmental needs, mirroring the adaptive processes of ecosystems (De Bonis, 2019).
The co-planning process can support an incremental identification of the territorial resources as common goods, expanding upon existing collective domains recognised in the park area and assuming the paradigm that community usage practices define the *commonality* of the goods, beyond its legal status (Capone, 2016). The tools for implementing this scenario may take on a contractual nature, involving agreements between various social, economic, and institutional entities that share interests in defining some kind of land use and transformation of the territory, Thus, they shape new frameworks of local (self) governance through agreements for specific purposes and themes, also drawing upon existing tools such as river contracts, landscape contracts, etc. (Dematteis and Magnaghi, 2018). The planning framework of the GSLP is intended as an application of new paradigms that could be extended to general planning, supporting the reactivation of practices that express fecund relationships between human societies and the non-human natural environment.

8. Conclusion

A vision far from both the technocratic setting of dominant environmental policies (see section 2) and the neo colonial leanings of mainstream environmental protection (see section 3), and vice versa grounded on a political ecology approach (see section 4), as well as on a consideration of the territories, starting from protected areas, as SCES, Social-Cultural-Ecological Systems (see section 5), led the authors to interpret the planning activity conducted for the Gran Sasso Laga National Park as a continuous process, mainly based on schemes of territorial self-government (see sections 6 and 7).
In essence, the latter are attributable to emerging or consolidated forms of commoning, in turn based on the identification of the park with a set of Common Pool Resources (CPRs, see again section 5), i.e. as a set of (collective) natural or man-made resource systems, potentially providing a flow of (individually) usable resource units (Ostrom, 1990).
With particular reference to the consolidated forms of commoning mentioned above, it is worth specifying that the identification of the park with a set of CPRs is not merely hypothetical, as the majority of its territory is made up of collective domains (Catonica et al., 2017). This circumstance, however, transcends itself, revealing an issue that is perhaps of the greatest importance among those discussed so far.
In short, the GSLPP, conceived as a stage in a continuing planning process aimed at promoting forms of sustainable self-government of the CPRs (already existing or emerging), deliberately offered itself, at least in the planners' intentions, as a sort of meta-institutional framework, or more precisely as a state institutional framework of the self-governed institutions of the CPRs (Ostrom, 1990).
But what types of self-government institutions are we referring to here precisely?
The subtitle of the well-known Ostom book 'Governing the Commons' reads: 'The Evolution of Institutions for Collective Action'.
In this regard, already in the prefaces of the same book the belief is clearly expressed that 'stable institutions of self-government can be created if certain problems of supply, credibility, and monitoring are solved' (Ostrom, 1990, p. xi), as demonstrated through the rich collection of cases study gathered by the author and several colleagues of her. Furthermore, the author herself, basing on the observation 'that neither the state nor the market is uniformly successful

in enabling individuals to sustain long-term, productive use of natural resource systems' (Ostrom, 1990, p. 1), declares that her book is an 'effort to develop better intellectual tools to understand the capabilities and limitations of self-governing institutions for regulating many types of resources' (*ivi*, p. 2).

Well, taking up the subtitle of Ostrom's book, we conclusively advance here the hypothesis that a possible evolution of the institutions for collective action, in the very complex current socio-technical-cultural context, can be constituted precisely from those kind of territorial agreements (see again section 7) to which the GSLPP entrusts the continuous development of the planning process.

In other words, we posit that a planning no longer understood as a hierarchical form of government of the territory, but rather as a set of territorial self-government and self-organising governance tools, can not only escape from the declining parabola to which it now seems destined (at least in Italy), but evolving the fruitful Ostromian legacy, it can even aspire to identify in its own devices the contemporary forms of institutions of collective action, which according to Ostrom are the only ones capable of ensuring adequate management of natural resources.

Author Contributions

Although this work as a whole arises from the close collaboration between the authors, the writing of § 1, 2, 3, 4, 7 is by Giovanni Ottaviano, the writing of § 5, 6, 8 is by Luciano De Bonis.

References

Anderies, John M., Marco A. Janssen and Elinor Ostrom (2004) A Framework to Analyze the Robustness of Social-ecological Systems from an Institutional Perspective. Ecology and Society, 9(1):18.

Bateson, Gregory (1972) *Steps to an Ecology of Mind*. San Francisco: Chandler Publishing.

Baudrillard, Jean (2019) Notizie catastrofiche. In Guattari, Félix and Franco La Cecla. *Le tre ecologie*. Milano: Sonda, pp. 101-114.

Capone, Nicola (2016) Del diritto d'uso civico e collettivo dei beni destinati al godimento dei diritti fondamentali. *Politica del Diritto*, 4/2016, pp. 597-636.

Catonica, Carlo, Daniela Tinti, Luciano De Bonis, Daniele Di Santo, Alfonso Calzolaio and Silvia De Paulis (2017) Carta della natura per la zonazione del piano del parco nazionale del Gran Sasso e Monti della Laga. Reticula, 16, pp. 31-38.

Conti, Giorgio and Tecla Soave (2006) I paesaggi bio-culturali delle Alpi: una coevoluzione interrotta. *Planum*, 13/2006, pp. 1-25.

Council of Europe (2000) Council of Europe Landscape Convention. European Treaty Series-No. 176.

Crosta, Pier Luigi (1996) Istituzionalizzare l'interazione sociale in pratiche professionali? Urbanistica, 106, pp. 111-115.

Crosta, Pier Luigi (1998) Politiche. Quale conoscenza per l'azione territoriale. Milano: Franco Angeli.

De Bonis, Luciano (2019) Le innovazioni possibili e utili: il caso del Piano per il Parco Nazionale del Gran Sasso e Monti della Laga. In Marson, Anna (ed) *Urbanistica e pianificazione nella prospettiva territorialista*. Macerata: Quodlibet, pp. 59-68.

De Bonis, Luciano (2020) Processi di riterritorializzazione dell'area appenninica. In Cepollaro, Gianluca and Bruno Zanon (eds) Il governo del territorio montano nello spazio europeo. Innovare gli sguardi e gli strumenti per lo sviluppo sostenibile della montagna. Pisa: ETS, pp. 175-183.

De Bonis, Luciano and Giovanni Ottaviano (2023) Il paesaggio come sistema socio-culturale-ecologico. Resilienza del paesaggio e resilienza nel PNRR. Conference speech. Transizioni, giustizia spaziale e progetto di territorio – Transitions, Spatial Justice and Territorial Planning. XXIV Conferenza Nazionale SIU, Società Italiana degli Urbanisti. 15-16 June, Cagliari.

Dematteis, Giuseppe and Alberto Magnaghi (2018) Patrimonio territoriale e coralità produttiva: nuove frontiere per i sistemi economici locali. Scienze del Territorio, 6, pp. 12-25.

Fabbri, Paolo (2019) La puzza delle balene. In Guattari, Félix and Franco La Cecla. *Le tre ecologie*. Milano: Sonda, pp. 115-123.

Farina, Almo (2001) *Ecologia del paesaggio. Principi, metodi e applicazioni*. Torino: UTET.
García López, Gustavo, Carmen M. Concepción and Alejandro Torres Abreu (eds, 2018) *Ambiente y democracia. Experiencias de gestión comunitaria ambiental en Puerto Rico*. San Juan: Universidad de Puerto Rico.
Goleman, Daniel (2009) *Intelligenza ecologica*. Bologna: Rizzoli. (First edition 2009. *Ecological Intelligence: How Knowing the Hidden Impacts of What We Buy Can Change Everything*. New York: Doubleday).
Gorz, André (2015) Ecologia e libertà, Salerno-Napoli: Orthotes. (First edition 1977. *Ecologie et liberté*. Paris: Editions Galilée).
Guattari, Félix (2019) *Le tre ecologie*. In Guattari, Félix and Franco La Cecla. *Le tre ecologie*. Milano: Sonda, pp. 11-62. (First edition 1989. *Les trois écologies*. Paris: Editions Galilée).
Halvorsen, Rune, Olav Skarpaas, Anders Bryn, Harald Bratli, Lars Erikstad, Trond Simensen and Eva Lieungh (2020) Towards a systematics of ecodiversity: The EcoSyst framework. *Global Ecol Biogeogr*, 29, pp. 1887-1906.
Hammer, Thomas, Ingo Mose, Thomas Scheurer, Dominik Siegrist and Norbert Weixlbaumer (2012) Societal research perspectives on protected areas in Europe. *eco.mont*, 3 (1), pp. 5-12.
Iannuzzi, Giulia (2018) The significance of Polanyi's contribution: an interpretation of the neoliberalization and commodification of nature. *JANUS.NET e-journal of International Relations*, 9 (1), pp. 38-52.
Iannuzzi, Giulia, Joao Morais Mourato and Rui Ferreira dos Santos (2020) Towards a multidimensional framework to assess the social and ecological fit of institutional arrangements for private protected areas. *PARKS: The International Journal of Protected Areas and Conservation*, 26.2, pp. 7-22.
Jedicke, Eckhard (2001) Biodiversität, Geodiversität, Ökodiversität. Kriterien zur Analyse der Landschaftsstruktur–ein konzeptioneller Diskussionsbeitrag. *Naturschutz und Landschaftsplanung*, 33 (2/3), pp. 59-68.
La Cecla, Franco (2019) Le tre ecologie più una: la pornoecologia. In Guattari, Félix and Franco La Cecla. *Le tre ecologie*. Milano: Sonda, pp. 63-98.
Leonardi, Emanuele (2017a) For a critique of neoliberal green economy. *Soft Power*, 5 (1), pp. 169-185.
Leonardi, Emanuele (2017b) *Lavoro Natura Valore. André Gorz tra marxismo e decrescita*. Salerno-Napoli: Orthotes.
Magnaghi, Alberto (2010) Dal Parco al progetto di territorio: evoluzione o discontinuità? *Ri-Vista - ricerche per la progettazione del paesaggio*, luglio-dicembre, pp. 25-29.
Magnaghi, Alberto (2015) Mettere in comune il patrimonio territoriale: dalla partecipazione all'autogoverno. *Glocale*, 9-10, pp. 139-157.
Mainardi, Danilo (2001) *L'animale irrazionale. L'uomo, la natura e i limiti della ragione*. Milano: Arnoldo Mondadori Editore.
Mainardi, Danilo (2008) Percezione della natura, biofilia, contrapposizione naturale e artificiale. Conference speech. La trasformazione dei paesaggi e il caso veneto. Istituto Veneto di Scienze Lettere ed Arti, 6-7 March, 2008, Venezia.
Mandelbaum, Seymour J. (1985) The Institutional Focus of Planning Theory. Journal of Planning Education and Research, 5(1), pp. 3-9.
Mazza, Luigi (1996) Funzioni e sistemi di pianificazione degli usi del suolo. Urbanistica, 106, pp.104-108.
Naveh, Zev (1994) From Biodiversity to Ecodiversity: A Landscape-Ecology Approach to Conservation and Restoration. *Restoration Ecology*, 2, pp. 180-189.
Oldekop, Johan A., George Holmes, W. Edwin Harris and Karl L. Evans (2015) A global assessment of the social and conservation outcomes of protected areas. *Conservation Biology*, 30 (1), pp. 133-141.
Ostrom, Elinor (1990) Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge, MA: Cambridge University Press.
Pallares-Blanch, Marta (2012) Natural Protected Areas and rural/local development: a sustainable strategy in remote areas. *Urbani Izziv*, 23 (2), pp S87-S96.
Plumptre, Andrew, Stu Butchart, Graeme Buchanan, Georgina Chandler, Wendy Elliott, Miguel Fernandez, Melanie Heath, Kate Jennings, Penny Langhammer, Sue Lieberman, Daniel Marnewick, Wes Sechrest and Amy Upgren (2021) 'We need to protect and conserve 30% of the planet: but it has

to be the right 30%', *Crossroads blog*, 20 August. Available at: https://www.iucn.org/crossroads-blog/202108/we-need-protect-and-conserve-30-planet-it-has-be-right-30 (Accessed: 30 May 2024).

Rolli, Gian Ludovico and Luciano De Bonis (eds, 2001) Il Piano del Parco Nazionale del Gran Sasso e Monti della Laga. Studi, metodologie, contenuti. L'Aquila: Parco Nazionale del Gran Sasso e Monti della Laga/Graphic Press, pp. 201-211.

Soave, Tecla (2010) 'I territori e gli ambienti di montagna: dalla marginalità alla sostenibilità integrata. Strumenti di valutazione e di valorizzazione dei paesaggi montani' (unpublished PhD thesis), Venezia, Università Ca' Foscari, 22nd cycle.

UNESCO (1972) Convention concerning the Protection of the World Cultural and Natural Heritage. Adopted by the General Conference at its seventeenth session. Paris, 16 november 1972.

UNESCO (1994) Operational Guidelines for the Implementation of the World Heritage Convention. WHC/2/Revised. February 1994. https://whc.unesco.org/archive/opguide94.pdf

Zamagni, Stefano (2018) Beni comuni territoriali e economia civile. Scienze del territorio, 6, pp. 50-59.