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GEOGRAPHICAL REFLECTIONS UPON THE NATURE OF COMMONS
STARTING FROM THE READING OF “GOVERNING THE COMMONS “
BY ELINOR OSTROM

Abstract: This paper proposes a geographic review of Elinor Ostrom’s most famous book “Governing the commons. The evolution of Institutions for Collective Actions”. Its goal is to identify what contribution geographical science can give to defining “the possibilities and limits” related to the use of commons. In the governance of commons, space and territory play a strategic role. Sometimes, however, this role is sacrificed to social, economic and political processes.

1. Since the 1990s the attention of civil society has been focused on several “battles” regarding commons that have occurred in various parts of the world. The “war of water” for example in Cochabamba, Bolivia in 2000, is a case in point; the struggle of thousands of farmers in India and Latin America against the private appropriation of seeds is another example, along with the indigenous uprisings in Ecuador against the extraction of mineral resources and the sale of swathes of the Amazon rainforest. Finally, the battle in the Chiapas headed by the “*campesinos sem terra*” (see Mattei, 2011).

In our country, the notion of commons has recently achieved notoriety in the press with the 2008 Ministerial Commission Rodotà and draft legislation designed to reform the Italian Civil Code by formulating a new legislative definition of “commons”, concerning the safeguarding and collective use of commons. In 2011 the term “commons” again became common currency with the referendum on the privatization of water when, thanks to the slogan “Acqua bene commune” or “Water as commons”, issues surrounding the topic were discussed in the press and on social media. (Antelmi, 2014). Since 2011, not only water, but many other aspects of civil society have been examined as examples of commons in a campaign to raise awareness: employment, education, culture, public transport, music, art are all commons, along with land rights, public services and national health. (see Antelmi, 2014; Mattei, 2013).

The governance of commons, intended as the conservation and safeguarding of natural resources, both material and immaterial, has acquired a crucial role in guaranteeing social and democratic order. However the use of the term “commons” in “diverse discourse situations”, with its now multiple meanings and interpretations, risks modifying and over-simplifying its true meaning. This may lead to a loss of “innovative potential” and a weakening of its ties to its true historical and social roots (Antelmi, 2014; Rodotà, 2012).

The economic notion of “commons” is by no means new, indeed «for generations, the commons were assumed to be a vanishing species. [...] After Hardin (1968), the commons were rediscovered in a rather spectacular way, but Elinor Ostrom transformed this same research field». (Berge e van Laerhoven, 2011, p. 161), (Berge e van Laerhoven, 2011, p. 161), who received the Nobel Prize for Economics for this in 2009. These reflections on commons within American political thought, and in particular the book “*Governing the Commons. The Evolution of Institutions for Collective*

Action”, published in 1990 and translated into Italian in 2006, «opened up the quest for further understanding of the commons question to a great many other disciplines». «*Governing the Commons* provided an alternative analytical paradigm for the study of phenomena which previously were hard to understand. The book opened the way for a genuine inter-disciplinary approach to the solutions of problems related with the provision and production [...] of CPRs» (van Laerhoven e Berge, 2011, pp. 1-3; see also Zamagni, 2014). This paper proposes a geographic review of Elinor Ostrom’s book “*Governing the commons. The evolution of Institutions for Collective Actions*”. Its goal is to identify what contribution geographical science can give in defining “the possibilities and limits” related to the use of commons. In the governance of commons, space and territory, in fact, play a strategic role. Sometimes, however, this role is sacrificed, frequently in favor of socio-economic and political processes. Geography has the capacity «to offer multilevel representations of areas linked to commons and the processes concerning them, that *connect* and *positively interact* (projection) with the partial views typical of other disciplinary approaches» (Governa, 2007, p. 335, my italics).

2. These reflections on the question of commons emerged at a particular moment in history that cannot be ignored if we are to understand why Hardin in 1968 spoke of “the tragedy of the commons”⁽¹⁾ or, as Ostrom defines it, «the degradation of the environment to be expected whenever many individuals use a scarce resource in common» (1990, p. 2). Such reflections are born out of a profound epistemological crisis in the relationship between man and his environment and have led to a significant rethinking of how human activities should be regulated in the “finite spaces” of the globe. Since the 1970s, this tendency has led to research into new sustainable development models.

Hardin’s work is located at the very heart of this social context and feeds debates that can be called Environmentalist (see Cencini, 1999). His theory underlines how groups/communities are almost completely incapable of using resources in a sustainable manner⁽²⁾. It is Hardin’s focus on scarce resources and the inevitable degradation of the environment when individuals seek to use commons, that align him with Environmentalist discourse more generally. The belief that individuals are tragically “not free” to pursue their own interests, even within a context that limits actions through the notion of “constant stock” is, he maintains, the result of the underlying conditioning of NeoClassical ideas of “well-being”, in which the individual’s right to achieve the maximum is the goal of every action performed in the context of “the common good”.

The solution to the “tragedy”, from Hardin’s point of view, can only be found in resolving the public/private dichotomy, where public is intended as the State and private is intended as private enterprise. This elucidation, however, does not take into account the continuum of experiences aimed

(1) Hardin’s work has been fundamental to recent discussions about commons. Before Hardin, other economists who dealt with the concept include Coman who, in 1911, published an article in *American Economic Review* about issues surrounding water resource management; in 1954 the economist Gordon published “*The Economic Theory of a Common Property Resource: The Fishery*”. Other important works include that of Samuelson (1954) on public goods and Olson (1965) on “The Logic of Collective Action”. In the 1970s, based on this work, four main branches of economic analysis of *commons* developed, but it was not until 1985 that scientific, political, economic and media attention on the question of commons became more mainstream (see Bruni, 2012b; Mattei, 2011; van Laerhoven e Ostrom, 2007; Zamagni, 2014).

(2) In an article published in 1968 in the journal *Science*, the evolutionist biologist, while describing the tragedy of the commons, commented on a case of common pasture land management. The word “tragedy” underlines how, in such circumstances, there is no single solution that satisfies everyone and that while it is not right to limit individuals from accessing commons, he concludes that responsibility must either be given to “the Leviathan” or the land should be privatized in order to safeguard the resource (see Bruni, 2012a).

at preserving shared natural resources; a continuum of “forms of governance of commons” that Ostrom identifies. Formulated in the 1990s, Ostrom’s theory operates in an epistemological context that was undergoing significant alterations.

In primis, Ostrom underlines how the “tragedy of the commons” does not only concern natural resources. She reflects on how «much of the world depended on resources that are subject to the possibility of a tragedy of the commons» (1990, p. 3). In *Governing the Commons*, she identifies the limits of Hardin’s theory and proposes a new one that attacks the very roots of the «crude application of the *homo œconomicus* paradigm, or short-term individualistic actions, divorced of any social relationship capable of establishing limits to the problem of commons» (Mattei, 2011, p. XI) (see also Bruni 2012b; Turco, 2014b). The title of the work assumes the status of explication: good governance of commons opposes tragedy and the obligations of either state or free market economy.

Her spectrum is large: «from small neighborhoods to the entire planet» (Ostrom, 1990, p. 1) and she begins with an analysis of issues surrounding the governance of commons and of “collective actions” ⁽³⁾. She looks at global scale issues regarding air, water, land (intended as renewable and non-renewable resources) and at how methods of regulating these areas are characterized by “social and spatial egoism” (Reynaud, 1984), that frequently results in conflict between actors involved in the management of power-relations connected to resources. Even at the other end of the geographic scale, problems deriving from sustainable management of resources are considered and solutions are observed that can create new management paradigms: «neither the state nor the market is uniformly successful in enabling individuals to sustain long-term, productive use of natural resource systems». And furthermore «communities of individuals have relied on institutions resembling neither the state nor the market to govern some resource systems with reasonable degrees of success over long periods of time» (Ostrom, 1990, p. 2).

Ostrom’s methodology proceeds by exploring “information from various contexts”, with case studies of over 5000 observational samples logged into a data bank, and a rich bibliographical study. Her case studies record how local communities from diverse geographical locations design “systems” for the management of their own collective resources (fishing areas, grazing land, water basins). Within these disparate systems, common management strategies can be observed (defined by Ostrom as “constants”), implemented by the local actors to regulate the use of the specific resource. These strategies are analyzed from the point of view of: «1) the structure of the resource systems; 2) the nature of the users; 3) the regulations imposed by users; 4) the results of the users’ behavior» (*ibidem*, 2006, p.

(3) The complexities of collective action cannot be fully discussed in this paper for reasons of space. I will limit myself to noting that the expression “collective action” is polysemic, given that all conceptual definitions or theories that appear under this label must necessarily draw on a whole series of empirical references that include characteristics and mechanisms of aggregation and/or alternative organizations” (Daher, 2002, p. 13). In the field of economy «collective action is any action that produces and consumes indivisible interdependencies [...] Simply “doing something together” is not enough to be considered collective action. Each case has to be analyzed individually in order to verify whether the action truly gives form to indivisible interdependencies which, without union between subjects, cannot exist» (Bellanca, 2012, p. 213). Ostrom (1990, p. 38) affirms that, with regard to CPRs «each individual must take into account the choices of others when assessing personal choices» as in common resource sharing, everyone is affected reciprocally and are connected in a network of interdependence (see Ostrom, 1998 e 2000). From a geographical point of view, what is of primary interest is the territory in which the collective action occurs. As Governa underlines (2005a e 2007), every collective action is, without a doubt, localized but not always territorialized. Collective action becomes territorialized when two elements predominate and intermingle: first, that the subjects involved share a common aim on the basis of which action is decided; these aims can be separated from the specificity of territory; second, that the action decided upon and shared is specific to place and aims at valorizing the natural resources of the territory (including commons) (see Turco, 2014b).

6). The data collected was then codified and utilized in the development of a theory of commons that goes beyond Hardin's "The Tragedy of the Commons" ⁽⁴⁾.

Time and again, Ostrom punctuates her work with praise for the "capacity for self-organization and self-governance of local communities" (local empowerment), capacities that while changing over time and space, are similar in their having derived from a socio-environmental interaction that leads to a process of "territorialization" (Raffestin, 1981). In all of the case studies referred to, the actors not only create institutions, but inhabit spaces, create them, producing and reproducing territory in order to guarantee the conservation of commons which have value for the community. The nature of the relations between "socio-spatial classes" is analyzed: the power relations between space and collectivity that lead to forms of "territorialization", in which interested parties are only one aspect of a more complex process. The capacity of a community to conserve and revitalize commons contributes to the development and well-being of the community.

The nature of the project proposed in the text takes the form of a "really geographical model" as it entails «representations of that which is newly emerging in the territory and on which realistic interventions can be pursued in certain circumstances to change the direction of the current processes in one way or another» (Dematteis, 1995, p. 37). The focus is predominantly on the local scale, on medium to small-size communities, and on the interplay between symmetrical and asymmetrical relations between the various actors, determined by the success or failure of commons management.

Governing the Commons recognizes the capacity of individuals to set-up systems of self-organization and self-governance to regulate issues connected to commons and sees that these systems do not always follow similar paths, rather they are specific to the place in which they operate: standardized protocols or solutions do not work in reality, differently to what theoretical models may suggest. Intermediate bodies exist, representing aggregations of subjects involved in the governance of commons that behave «effectively as "collective actors": a subject that while not formally recognized as such (i.e. neither territorial association, business or other type of institution),[...] is aware of its own identity and is capable of following autonomous collective "behavioral patterns", which enable it to interact with externals following its "own rules", informally devised but capable of being reproduced» (Dematteis, 1994, pp. 14-15).

3- Goods/resources common or collective are described by the term *commons* ⁽⁵⁾. In Italian, these noun and adjective pairs are used indifferently ⁽⁶⁾, as frequently in the translation process terms are

(4) These case studies and others taken from a detailed bibliographical analysis, were selected during the late 1980s following strict taxonomic selection criteria. They form the basis of a conceptual framework for empirical research into collective resource systems: *LAD framework*, *Institutional Analysing and Development framework* (see Kiser and Ostrom, 1982; Polski and Ostrom, 1999; Ostrom, 1986 and 2005) which has helped to identify an alternative theory of commons.

(5) In Italian, these terms have, in recent years become more widespread in the domains of economics, law, sociology and the mass-media, and correspond to the English *commons*, (first used in the 15th century). For a more detailed comment on the etymology of the word "commons", see Antelmi, 2014; Mattei, 2011; Ricoveri, 2010; Sachs, 2006; *Vocaboulary of Commons*, 2011.

(6) Zamagni (2014) defines the choice of translating the title of the work into Italian "Governare i beni collettivi" as "curious", as it suggests that the terms "collettivo" and "comune" are synonyms. Mattei too, (2011) mentions that this translation choice is less than felicitous. As Antelmi mentions (2014), while in everyday language there is indeed a "noticeable synonymy" between the terms "common goods", "collective goods" and "public goods", «in specialized domains, each term acquires a different sense [...] that during translation [...] is not necessarily congruent» (Antelmi, 2014, p. 47). It is essential to clarify the meaning of each word, as around the terms "common goods"/"collective goods" (beni comuni/collettivi) and "common resources"/"collective resources" (risorse comuni/collettive) economic, political, social,

translated using synonyms that when examined are not synonymous at all. The difference between “goods” and “resources” (beni and risorse), however cannot be denied (see Dematteis, 2005; Toschi, 1959; Vidal de la Blanche, 1911), just as the adjectives “common” and “collective” (comune and collettivo) are not synonyms. The aim of the translator is clearly to define a particular category of goods that must be separated from other concepts: public and private goods. “Commons” are goods «consumed contemporaneously by many people (in Economics the term is “non-excludable”) and can be scarce or rival: consumption by others reduces my chances of consuming». Moreover, «those individuals involved in the consumption of those goods are connected to each other and form a community» (Bruni, 2012b, p. 113) ⁽⁷⁾. From the point of view of geography, and based on the text itself, it can be affirmed that “commons” are those goods or resources that have “identity value” (not of exchange and not only of use) for a human group: the moment in which a human group bestows «identity value» on a collective resource, the problem of how to use it or share it comes to the fore.

Ostrom uses the term “Common-Pool Resources (CPRs or commons)” to refer to a «natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use» (1990, p. 30)⁽⁸⁾. A commons then, above all others is (see Toschi, 1959), «not a thing but a relationship that reveals certain properties necessary to the satisfaction of needs. There is no stable relationship however; [...]. Each resource is developing,

cultural and territorial discourse and practices evolve. “Common goods” (beni comuni) does not signify *tout court* “collective property” (“proprietà collettiva”), which constitutes a category or property of commons (see Carestiato, 2008). The terms “common” and “collective”, in the Italian version, signify a group of people connected either by an interest or by a goal connected to the use/consumption of a scarce resource (see Antelmi, 2014). In this paper I have, in those parts that express my own views, preferred to translate commons as “beni comuni”.

(7) In economic theory, the use of the adjectives “public”/ “private” and “common”/ “collective” “have nothing – or very little, and only indirectly- to do with ownership or the juridical status of goods” (Bruni, 2012b, p. 123). According to economic theory, goods can be classified by their consumption rivalry and non-excludability and, as such, there are differences between public goods (excludable and non-rival) and private goods (excludable and rival through property rights) (see Bruni, 2012a; Franzini, 2012). The theory of commons classifies goods into four categories according to their excludability and rivalry: public goods: non-rival and non-excludable; private goods: excludable and rival; common goods: non-excludable and rival; club goods (club goods): excludable and non-rival (see Ostrom V. and E. Ostrom, 1977); in 2009 Hess and Ostrom proposed a much broader epistemological definition of common goods within a theory of commons which shall be discussed in (8).

(8) In her work, Ostrom uses the term “Common-Pool Resources (CPRs or commons)”. As Carestiato (2008) underlines, alongside Ostrom’s definition, other classifications of common goods can be made. First, that of non-material goods (information, knowledge, culture) and natural goods. Goods can be further classified as tangible and intangible; local and global, which can then be grouped as: renewable, non-renewable and depleted (see Donolo, 2012). Considering all these different definitions, Carestiato (2008, p. 13) proposes the following taxonomy: «A. traditional common goods that a specific community uses as an acquired right (meadows, grazing land, woodland, fishing areas etc.); B. global common goods (air, water, forests, biodiversity, the oceans, outer space, non-renewable resources [...]); C. new commons, identifiable in culture, including traditional knowledge and craft, infrastructures (motor ways, internet), car parks and parks in cities, public services such as lighting, water, transport, council houses, public health, schools, the right to peace and security». In 2011, the book *Vocabulary of Commons* suggested the following groups: *Natural commons*; *Urban commons*; *Social commons*, *Knowledge commons*, *Spiritual and sacred commons*. In 2009 Hess and Ostrom, clarified the notion of common goods in their theory of commons: generally speaking they are «*Commons* is a general term that refers to a resource shared by a group of people» (p. 4). This definition is interesting in that it contains the notion of “knowledge commons”. It also goes some way to resolve the questions raised by Mattei (2011) regarding the risk of commercialization of commons as a result of a too strict taxonomy.

each resource is a dynamic stake» (Raffestin, 1981, p. 22). Where, how and by whom can this “dynamic stake” be regulated when dealing with common-pool resources? «Users of CPRs have developed a wide diversity in their own agreements, which are enforced by many mechanisms» (Ostrom, 1990, p. 17). The aim of the book «is to generate different ways of thinking about the mechanisms that individuals may use to extricate themselves from commons dilemmas -ways different from what one finds in much of the policy literature» (*ibidem*, p. 18). These mechanisms are structured either as vertical or horizontal relation-complexes between communities and the environment and whose agency can be seen in territorial signs that cannot be found in most economic-policy literature, but that have to be sought in an interpretative, multi-disciplinary approach (van Laerhoven e Berge, 2011). And it is here that geography may forge for itself a primary role, notwithstanding Moss’ (2014), belief that up until now the geographic and spatial investigation of commons have been neglected⁽⁹⁾. Ostrom immediately deals with issues of a geographical nature to begin her reflections on the consumption of commons: the question of scale, i.e. the geographical space that delimitates research (see Pagnini Alberti, 1974; Reynaud, 1984). As any debate on commons contains trans-scale management issues, the choice is of whether or not to focus on local realities “where it is easier to observe the processes of self-organization and self-governance” aimed at guaranteeing permanent “collective benefit” for the beneficiaries or “groups of economic subjects”. Local are the geographic scale that «permits interactions typical of physical proximity: face-to-face relationships, internal trust, reciprocity...» (Dematteis, 2001, p. 17)

The concept of “local”, referred to in the book, does not refer to size or hierarchies as much as to «a way of conceiving territory, of looking at the specificity and the differences that characterize it and render it relevant to the analysis. The local is configured as a specific “gaze” on the territorial problems» on commons (Governa, 1997, p. 15). Self-organization and self-governance are the expression of «a project in which economic beneficiaries, while continuing to have an important role, are secondary with respect to cultural factors at play» (Dematteis, 1994, p. 13).

“Collective institutions” for the management of commons have consistently been established to suit the particular technical problems that arise in specific environments: the subdivision of the environmental space, the necessity of gathering information to achieve efficiency, the culture and social structure of the place. Such institutions, apart from governing resources, initiate processes of “territorialization” whose successes and failures have to be carefully analyzed in order to identify the role that commons have in the context of local and global development. The work proposes examples that, while sharing some variables, are organized differently, affecting local communities in different ways. Before beginning her examination of case-studies, the Author underlines the importance of considering the commons reality in a trans-scale context. Examining socio-spatial classes as a strategic element in the management of temporal and spatial information is necessary when observing collective resources that are «almost impossible to map without extensive on-site experience» (Ostrom, 1999, p. 20).

4. Having established her central premise, which recognizes the centrality of “space transformed and organized by social action” (see Tinacci Mossello, 1990), she proceeds to consider «how a group of

(9) This article by Moss, published in 2014 in *International Journal of the Commons*, concentrates on the importance of geography in any debate on commons and the governance of commons. Moss shows how «issues of space, place, territory or scale are ubiquitous to the study of the commons, yet have rarely been accorded prime attention» (2014, p. 459).

principals who are in an interdependent situation can organize and govern themselves to obtain continuing joint benefits when all face temptations to free-ride, shirk, or otherwise act opportunistically» (Ostrom, 1990, p. 29). And as certain communities manage in this enterprise while others do not, she dedicates space to these reflections.

The work focuses on several key concepts that help identify the status of the actors involved in the use of commons. She defines “CPRs or commons” as «production systems for natural or man-made resources» (*ibidem*, p. 52) ⁽¹⁰⁾ and distinguishes between: 1) the system of resource production that is defined as stock (and is territorial) that when managed adequately guarantees the flow and regeneration of the stock; 2) the flow of the resource produced by the system that is used by the beneficiaries. Ostrom calls this “appropriation”, that is, a «process of withdrawing resource units from a resource system» (*ibidem*, p. 30).

This is followed by a system that includes the actors who intersect with the systems of collective resource system and/or flow either vertically or horizontally. The appropriator is he who acquires resource units, an actors within the system who acquires resource units for various reasons: direct consumption; raw materials for production; property transfer. Appropriators may be single individuals (companies or persons) or groups or communities who simultaneously use the stock.

Then there are the providers and the producers, actors who make the use of commons possible: 1) «providers arrange for the provision of a CPR»; 2) the producer «constructs, repairs or takes actions that ensure the long-term sustainability of the resource system itself» (Ostrom, 1990, p. 31) The biggest problems connected to commons management are those of appropriation and provision (see also Ostrom, Gardner, Walker, 1994).

Before considering the case studies themselves, it is useful to focus on the manner in which appropriators make choices that are determined by a continually changing, uncertain and unstable environment. Rational choices are influenced by the geographical space that contextualizes the CPR. Ostrom notes that spatial differences in knowledge/information regarding the nature and characteristics of the CPR represents one of the most significant areas of uncertainty. She speaks of the “delicate equilibrium” between the objective environment and the behavioral environment (see Lloyd, Dicken, 1988). CPRs have the added peculiarity that the co-appropriators are connected by a network of reciprocal dependencies, finalized towards the sharing of the same resource; if there is no connection between actors, there is a risk that the commons will be destroyed. Thus, the appropriators have to behave as “collective syntagmatic actors”, that is actors who implement programs for the use of commons, and who «are integrated or integrate within a planned process» and not “paradigmatic actors”, «who operate according to a classification, a division without integration into the implemented program» (Raffestin, 1981, p. 52). Ostrom underlines that «making the switch, however, from independent to coordinated or collective action is a nontrivial problem» (1990, p. 40). Apart from the question of costs, issues of legitimacy, responsibility and reciprocal control emerge; conflict between actors and socio-spatial classes is inevitable.

(10) This work specifies how in commons theory, the resource unit taken from the system is not subject to shared use or shared appropriation; while the resource production system is shared and cannot exclude individuals from sharing the use of it. The author underlines that the distinction between CPR as stock and as flow is essential when speaking of renewable resources for which a “replenishing” tax can be calculated. She notes that CPR appropriators «have no-power in a final goods market» and their actions have not significant «impact on the environment of others living outside the range of their CPR» (Ostrom, 1990, p. 31).

Ostrom examines two other aspects concerned with choice that “implicitly” involves territory and the community the actors using the commons inhabit. These actors have to manage both the appropriation and the supply of the resource, facing conditions that differ substantially depending on the environmental space and core values (Ostrom speaks of “geographic uncertainty” 1990, p. 48). Their actions are performed within different geographical scales. The activities of appropriation and supply are strongly connoted by geographical variability, that Ostrom sees only in part as a natural environmental concern. Geographical variability is, according to Ostrom, affected above all by production systems management and “programmed access” conditions that the actors wish to implement. It is this that leads to the creation of institutions, «the set of the working rules that are used to determine» actions, restrictions, aggregations, procedures and information supply. This is the main theme of Ostrom’s work, particularly «the *de facto* rules actually used in CPR filed settings, in an effort to understand the incentives and consequences they produce» (Ostrom, 1990, p. 51; see also Ostrom, 2005). These working rules, however, are the outcome of formal and informal decisions made by those who manage the territory; these subjects are guided by what Ostrom defines a “genetic code” that exemplifies the «specific principles of auto-reproductive function, internal logic, common ways of thinking, communicating and acting common to the actors» (Dematteis, 1994, p. 15) and that have to be analyzed, from a spatial point of view, as commons.

5. The case studies presented in *Governing the Commons* are taken from various geographical contexts and are observed directly in order to assess: 1) In what way the appropriators have “invented, applied and controlled the rules designed to regulate the use of CPR”; 2) Why have certain CPR and institutions survived for long periods of time, overcoming hostile conditions both of a natural and socio-economic type.

The spatial contexts examined belong to different and distinct geographical areas (Switzerland, Spain, Japan, the Philippines, California, Sri Lanka and Nova Scotia). Alongside the successful models observed, Ostrom notes some examples of total failures, of fragile institutions created by appropriators, and an example of institutional change in an unstable and uncertain environment.

Reading the case studies, it can be seen how the geographical dimension of any analysis of commons has to be applied not only from the point of view of methodology but also epistemologically: “Space” is not a simple container of collective actions (Dematteis and Governa, 2005; Giordano, 2003; Moss, 2014; Turco 2014a). The territories examined are configured as “socio-spatial classes” (Reynaud, 1981) distinguished by their neg-entropic capacities. In successful scenarios, the social groups develop mechanisms to conserve the local specificity as commons, they create order within the institutions and in co-operative relations, they implement sustainable resource and space management protocols. Unsuccessful cases are characterized by the decline of the socio-spatial class due to the progressive weakening of organizational ability, connected primarily to a lack of awareness of local conditions and the potential for a sustainable use of commons.

In all cases, the analysis begins with the observation of physical space, real and concrete, interpreted as “data”. In brief, space is seen as “produced, lived and perceived” (see Dauphinè, 1989). Each local community is examined according to the size and eco-system that hosts the human organization connected to the commons. Morphology, rain-fall, exposure to the sun and micro-climates are described according to a basic methodology that sees human activity and the environment as interdependent, a fact that cannot be ignored if we really wish to understand how to sustainably manage commons. The attention is then moved to human actions in regard to commons: the

identification of strategies put in place to govern and use resources, the study of the vertical and horizontal relationships that express the ability to govern resources, where, alongside the real space (finite and absolute) another symbolic space exists, “connected to the actions of the organizations” that institutionalize these relationships (see Raffestin, 1981, Turco 1988; Turco, 2014b). In successful management scenarios, the subjects are called “actors” as they are «endowed with self-determinacy» (Dematteis and Governa, 2005, p. 20) their activity directed towards producing and reproducing material and immaterial relations. Moreover, this «aggregate of subjects behaves as collective actors the moment in which they commit to the planning and management of shared projects» (Dematteis, 2001, p. 17).

Several fundamental analogies emerge: they are the expression of the “territorialization of collective action” based on shared rules governing the particular eco-system, and on the community’s strengths, conflict minimization, sustainability and the solidity of resource appropriation that “generates territory”, inaugurating long-lasting, self-governing mechanism and shaping local systems within the territory (Bonora, 2001).

From these analogies, the rules developed in the various territorial contexts derive, that while dissimilar for what regards the specificity of place, can be defined as «a set of seven principles that characterize all of those robust CPR institutions» (Ostrom, 1990, p. 90): 1) clearly defined boundaries; 2) congruence between appropriation and provision rules and local conditions; 3) collective-choice arrangements; 4) monitoring; 5) graduated sanctions; 6) conflict-resolution mechanisms; 7) minimal recognition of rights to organize. To these, an eighth rule can be added: the opening up of local systems towards other local systems and other scales of territorial governance or nested enterprises.

In successful scenarios, these seven principles form the basis of a complex “area-point-network” system (see Raffestin, 1981) the visible essence, the externalization of the community studied, aimed not only at the conservation and use of commons, but at political, economic, social and cultural interaction linked to the supply-demand paradigm involving individuals and groups that may or may not belong to the local community.

The concept of clearly defined boundaries (physical and functional) expressed in the book as the limits of governance, legal and power-related, is shown to be the absolute basis for collective action (11). Boundaries are a defining characteristic of any form of “territorialization”: the use of commons by a group requires and «immediately generates boundaries», a circumscribed area, «If it were not like this, all action would dissolve [...] all actions are governed by an aim, and this too is a boundary with respect to other, possible aims» (Raffestin, 1981, p. 158). Boundaries are defined also in terms of exclusion, the exclusion of the rights of externals to the access and appropriation of commons, that is, those un-

(11) The question of boundaries has been well-explored in geographical science literature. The concept of boundary is ambivalent, indicating a limit but, at the same time, expressing the need to go beyond limits; boundaries have a double function, on one hand to exclude and separate, on the other to unify and gather together (see Buzzetti, 1996; Lizza, 2001). In English we find several related terms *frontier*, *border* and *boundary* (see Zanini, 1997). When dealing with commons, Ostrom speaks of “*Clearly defined boundaries*”, describing “*Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself*” (1990, p. 91). Her definition points up questions of defining the space of those who utilize, conserve and valorize it through processes of social construction connected to the commons themselves, in which the boundaries, together with the territory, is «the result of collective action mediated through the materiality of place» (Dematteis and Governa, 2005, p. 26). As these authors maintain (2005, p. 25), referencing Raffestin, «the question of boundaries and the limits of territory implies the notion of appropriation of space: drawing a boundary includes and excludes, it is the material expression of a project, of aims and intentions, of the will to act and of the power relations that support the endeavor. Drawing a boundary contributes to the territorialization of space and to the construction of territory as a place of activity».

entitled parties who do not belong to the “local community”. Ostrom maintains that boundaries define a necessary area as they «try to optimize the operational field of the local group» (*ibidem*, p. 159).

For Ostrom, boundaries are necessary but not sufficient. The area includes point – represented by appropriators, suppliers, producers (local and supra-local) – each expressing a degree of power over the CPR. These actors «do not confront each other but act and, consequently, try to maintain relationships, guarantee functions, to influence, control, prohibit, allow, to take distance and to move close, and thus create a network» (Ostrom, 2006, p. 161). The other six principles structure internal and external networks as well as those “productive and essential” relations that give life to both territorial processes and products and to local developmental models for the commons.

The “appropriation and provision” rules (principal 2) expresses the relational modalities existing between local subjects and the *milieu* around the CPR (see Bonora, 2001; Dematteis, 2001; Dematteis and Governa, 2005). Ostrom looks at the coherence of rules within the local area and within the context of the specific CPR. She shows how the commons are strictly related to the natural local environment and are characterized by “immobility and specificity”. There is no one correct way of managing commons, but management protocols must adapt to the resource specificity. Coherence guarantees the “sustainable use of CPRs by all actors” and initiates bottom-up processes (Conti, 2012).

“Collective-choice arrangements; monitoring; graduate sanctions; conflict-resolution mechanisms” are the principles that define the other essential relationships, those between local subjects with an interest in the commons (see Bonora, 2001; Dematteis, 2001; Dematteis e Governa, 2005). The creation of good rules, according to Ostrom derives from the involvement of actors in their design: good rules must be designed by the interested parties themselves. Following this principle, institutions can better adapt «their rules to local circumstances, because the individuals who directly interact with one another and with the physical world can modify the rules over time so as to better fit them to the specific characteristics of their setting» (Ostrom, 2006, p. 90). The fact that good rules exist, however, does not guarantee their being respected: local actors are also called in to monitor, hand down sanctions and manage conflicts born within what is described as the “local system”.

The last two design principles underline the importance of cooperation and dialogue between “local and supra-local components” for an efficient management of commons. The relationship between local institutions and higher institutions of a politico-economic nature, the possibility of independent action towards the CPR, together with recognition of geographical scale and socio-spatial classes interested in commons management, reveal how territorial governance should be conceived “always and necessarily on a trans-scale level”. Ostrom affirms that «appropriation, provision, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers of nested enterprises» (*ibidem*, p. 101); this means they have to be recognized by the several “types and forms” of institutions involved in the management of commons. The success of resource management mechanisms depends on the relationships between the local and the politico-administrative institutions involved; “establishing rules at one level without rules at the other levels, will produce an incomplete system that may not endure over the long run” (*ibidem*, p. 102). This important conclusion holds within it the very idea of *multilevel governance* (see Scarpelli, 2011) of commons, a management approach that takes into account issues of co-responsibility and economic policies of scale as well recognizing that there exist actions and relationships that do not depend on “local collective action”.

These diverse categories of relationships identified in the case studies suggest that the theoretical operative “Territorial Local Territory” (S.Lo.T.) model (see Bonora, 2001; Dematteis, 2003)

is a useful conceptual tool in geographical research into commons, to be used alongside the IAD Framework, in order to see how the «network of local actors develop their own internal relations of a co-operative, negotiating, competitive and conflictual nature, through which collective action and planning directed towards shared development is made possible» (Dematteis and Governa, 2005, p. 30).

In successful scenarios, “these relationships aim at increasing the value” of the shared resource of a *milieu*, according to a common aim that is safeguarded through conflict management. It is through the combination of “autonomous collective action and rooted resources” that “territorial added value” can be obtained ⁽¹²⁾, which has, in successful cases, allowed for significant and long-term local development deriving from “the activism of actors and local resources” (see Dematteis and Governa, 2005). The result of functional and institutional change generates processes of territorialization in which «the rationality of territorialization is recognizable and known as one of the modes through which communities live and reproduce» (Turco, 1988, p. 15). In unsuccessful cases, the asymmetry between actors, the lack of attention to resource specificity, conflict between appropriators, suppliers and producers and the restricted relations between governmental institutions, have led to the depletion of commons and an incoherent use of resources that has failed to establish self-sustainable forms of territorialization. The weak point observable in all the unsuccessful cases is the lack of a shared and participatory management vision.

6. The reflections on commons in *Governing the Commons* open up analytical areas for geo-territorial studies, in particular the recent reflections on local development and trans-scale readings of development. The whole work, while concentrating on the institutions born as a result of local empowerment (the possibility of self-management of local resources by the community and the opportunity to define rules for the use and appropriation of commons autonomously) reveals the importance of concepts pertaining to geographical science. These include the notions of territory and the territorialization of collective action, territoriality, re-reading the idea of community, territorial identity. Ostrom’s work paves the way toward further research into commons (Moss, 2014).

In the domain of commons governance, importance is given to the spatial dimension of human agency; man is recognized as *homo geograficus* «a special social actor who, within the multiplicity of roles he assumes in different ways and at different moments: a) produces territory; b) uses territory; c) initiates, develops and concludes relationships with other actors» (Turco, 1988, p.52).

In this perspective, the space in which the collective actors move can be interpreted as «a field of action constructed from a distance; surface and energy capable of influencing the transmission of information. Its attributes are used differently according to groups. Each society, in a particular moment in time, produces a territory, i.e., a space characterized by human creations and experience. Territory is the sum of relations that permit various groups to pursue their own interests in space» (Bailly and Beguin, 1984, p.24)

In the case of commons, the goal of all actions pursued by the communities analyzed is, without a doubt, complex. They pursue more than one aim, they produce “territoriality”, both active and

(12) Territorial Added Value (VAT) «refers to a specific territory and can be explained in two ways: (1) as the value added by a project [...]; (2) as the value added by the territory» (Dematteis, 2001, p. 22). In the case of commons, the value added territory can be seen as the value added and incorporated into the territory from the collective projects concerning the commons, and as the extra value that derives from activating the potential of the commons in a specific territory (see Dematteis, 2001). For further discussion see Dematteis, 2001; Dematteis and Governa, 2005; Corrado, 2005.

passive ⁽¹³⁾, they generate inclusive/exclusive models for the use and management of commons, which is an essential component of the common need to conserve, use and capitalize on commons, a resource which by its very nature must be shared. Collective action, thus, is the defining characteristic of commons: the connection or “bridge” between co-appropriators, the unification of actors within a network generated by the commons themselves. Such a network requires a special reasoning in order to be managed correctly, what Bruni calls «the rationale of “us”» (see Bruni, 2006).

It also becomes clear that actors cannot be considered as “actors” without territory. Territory is not simply a support for interaction between institutions. Ostrom believes that each connection created between specific territories, commons and actors is essential. Collective action, in successful cases, expresses a collective identity that, made of connections between material and non-material elements circulating around the commons, is not defined by spatial proximity (this would be the result of a passive sharing of territorial capital), «derives from the collective agency of the actors, the bearers of *reciprocal* and *shared* knowledge and practices, builders of territory and logic-systems that express identity» (Dematteis and Governa, 2005, p. 22) (my italics). The territorialization that emerges from collective action is the expression of a synergy «in which territory is not only the scenario of action, but a matrix and a result of that action whereby subjects become involved in local activism and organize themselves in ways that would be impossible individually or if their actions were “doing something together”» (Governa, 2001, p. 40).

From this point of view, the synergy between autonomous collective action and commons, generates that “territorial added value” that makes territory itself a “localized collective of commons” and determines “territorial capital” (see Dematteis and Governa, 2005). This capital is made up of rooted resources, cultural-historical heritage and relational goods that function as crucial variables in issues of local sustainability and trans-scale dialogues (see Moss, 2014).

In geographical studies of commons, the initial scale is essentially the local, but the analytical gaze can shift to observe how this scale enters into dialogue and cooperates with other scales for the good of the local and supra-local community. Geography can study the material and non-material relationships that the local community forges around common resources. Such relationships are bearers of “values” that modify the use of the resource itself and that characterize its specificity and relationship with the territory. Relationships are the key to the success or failure of human action (see Dematteis and Governa, 2005; Governa, 2007): the relationship between commons and community, the relationships between actors, the relationship between the past and the future.

The challenge of this century is that of attributing “value” to commons, not only commons intended as natural resources, but also to the spiritual and non-material goods in our life (heritage, landscape, solidarity, new cultural actions, faith) (see Hess and Ostrom, 2009; *Vocabulary of Commons*,

(13) Territoriality, in the geographical sense, «does not only imply a subject’s relations with “things”, but also the relations between subjects; not only relations with material space but also with abstract or symbolic space» (Governa, 2007p. 351). Studies in the field also speak of “passive territory” (in the negative) «with control strategies and the normative system associated to them, which aims at excluding both subjects and resources»; “active territory” (in the positive) «derives from the territorialized and territorializing collective action of local subjects who utilize inclusive and operative strategies» (Dematteis and Governa, 2005, p. 26; Governa, 2005b, p. 58). Passive territory derives from a “rigid” view of territory, shaped and controlled by externals (imposition); it consists in the geographical manifestation of the control of space and the social powers exerted on that space, it operates through strategies by which individuals or groups influence and control people, phenomena and relations, defining and affirming control within the geographic area (see Governa, 2005b). The concept of active territory derives from the notion that «territoriality is a nexus of relations that emerge from a three-dimensional system, socio-spatial-temporal, and aims at achieving the highest possible levels of autonomy compatible with the resource system» (Raffestin, 1981 pp. 164).

2011; Turco, 2014a). The task is to identify the new commons and the cooperative and inclusive management strategies that might be activated within communities at all levels of geographic-scale for long-term, sustainable use.

What Ostrom's work clearly underlines is that those communities that have successfully managed their common resources, have all sustained a meaningful dialogue between the actors, affirmed their identity in relation to the commons, encouraged a continuous exchange of ideas in their attempt to safeguard the commons and "the common good" ⁽¹⁴⁾. There is «a strong tie between commons and "the common good", a key concept in classical traditions of moral philosophy, that of Aristotle and Nussbaum. There can be no "Common good" without the existence, the safeguarding and improvement of commons. Every debate regarding commons, necessarily recalls the idea of the "Common good", that is, all those who use the commons are connected to each other, they form a community: Community, Commons and the "Common good" are connected by this *cum-munus* (gift-obligation), the common root of all three terms» (Bruni, 2012, p. 113) and it is this that drives us forward towards a new rationale.

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(14) For further discussion of the etymological and epistemological difference between the Common Good and common goods, see Antelmi, 2014; Bruni, 2012a; Lo Presti, 2009; Zamagni 2007 and 2014.

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