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# CREATING AND INTEGRATING LOCAL KNOWLEDGE IN COMMUNITIES OF PRACTICE: THE ENVIRONMENTAL REGENERATION OF THE OFANTO RIVER BASIN

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## 1. INTRODUCTION

In contexts characterised by environmental crises and the scarcity of water resources, environmental planning and management of river basins face many challenges. Among these, the construction of spaces of coexistence assumes a crucial importance. Integration represents an important goal of planning practice in the face of growing fragmentation of contemporary global societies. Among possible perspectives, this paper focuses on knowledge integration as a way to change local micro-worlds of consolidated knowledge frames, routines and practices, and to deal with new problems, or interpret old problems from different perspectives. Generating creative local knowledge is a necessary step in order to favour the emergence of new ways of thinking about local development even in regions where scarcity is not considered such a critical problem as it is in the South Mediterranean area, since environmental crises appear to be resolvable by technological improvements and careful planning practices mainly driven by an anthropocentric approach.

The Ofanto river basin is one of the areas of environmental crises in the Apulia Region, Southern Italy. Its crisis is, on the one hand, the result of the pressure of agricultural activity and urban development on the river environment, on the other, of the persistence of a unique representation of water resources management, dominated by the "hydraulic paradigm". Different plans and policies have been proposed and implemented at different scales and levels for the area at hand. They are characterised by lack of strategic orientation and co-ordination, which enhance rather than mitigate the fragmented nature of information, knowledge and actions concerning the Ofanto river basin. Through these policies the basin can be considered both a resource and a wasteland.

But now a different image of the river is emerging: that of a place where public/private relations can be reimagined and based on the concept of multiple publics, requiring the construction of shared forms of knowledge. This image is the result of complex relations among different local/global policy-making processes, efforts made by local NGOs to rehabilitate the area, and rapid socio-environmental changes. Thus, different as well as shared strategic representations are emerging in the Ofanto river basin concerning both the design of changing space of local actors' interactions, and actor-environment relations.

In this paper we deal with these issues within a research programme aiming at building a knowledge base on the Ofanto environment not only in order to support experts' analyses, but also to be used through the web by the public at large.<sup>1</sup>

This paper is divided into four parts. In Section 2 which follows, there is a discussion on different forms of fragmentation in contemporary society, in their connection with globalisation, and on integration as a planning response. Section 3 focuses on the case study, investigating the Ofanto river basin environmental crises and institutional dynamism. Section 4 highlights processes, practices and actors in the area. Cognitive maps reveal "connectors" in actors' knowledge linking concepts to processes and actions. In the concluding Section connectors, together with communities of practices, are considered chunks of information on which it is possible to build agreements and opportunities to open the regional governance system to a perspective of multiple values.

## 2. THE SEARCH FOR INTEGRATION IN A FRAGMENTED SOCIETY

### 2.1. Fragmentation in the globalised society

Globalisation is generally intended as the increased interconnection between elements located at diverse points of the planet, originated by dramatic changes occurring in the fields of technology,

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economics, finance, and politics. The revolution in Information and Communication Technology, the increase in scale of production and international trade, as well as in the movements of capital, and the intensification of international relations in many fields, are all different aspects of globalisation.

The process of global restructuring implies a number of interrelated dynamics. Following Friedmann (1999), it is worth mentioning: transnationalisation and “networking” of the capitalist economy on a global scale, spatial reordering of the global economy, mass international migrations, the rise to hegemonic status of neo-liberal ideology accompanied by a weakening of the welfare state, and the replacement of trust in benign government by an increasing reliance on wild or weakly regulated markets.

Globalisation is closely connected with fragmentation. This is one of the hallmarks of postmodernist thought. In fact, it implies the selective and space-specific devaluation of assets originated by the intensification of competition among regions related to the reduction of spatial barriers and the compression of spatial and temporal worlds (Harvey, 1989). The rise of a “space of flows” generates spatial forms that articulate the emergence of new economic subjects, while disarticulating the fragments of destructured ones as well as the components of the new subjects embodied into the emerging economic structure (Castells, 1989).

In the globalised economy, the distribution of tasks in the international division of labour is uneven, and depends on specific attributes offered by different locations for capital accumulation. Globalisation does not imply a sameness between places, but a continuation of the significance of territorial diversity and difference (Amin and Thrift, 1994).

At the global level, apart from a few “world cities”, which are the command and control points for global capitalism (Sassen, 1994), increasing instability and uncertainty characterise cities and regions. Globalisation has immersed them in an accentuated competitive climate. The world cities themselves are places of social polarisation which have been conceptualised as “dual cities” (Castells, 1989). They are places of extraordinary wealth and affluence, but also of serious disadvantage and deprivation.

The all-pervasive force of globalisation seems to have broken down traditional patterns of social and personal integration, leaving a society that has become more and more fragmented and individualised (Beck, 1995). In Western countries, on the one hand, with the progressive shift from rural into urban society, and development of mass media, urban values and attitudes became independent of the city. They are elements in the progression to modernity that affect society generally (Giddens, 1990). On the other hand, the effects of urban life on social groups are increasingly differentiated, particularly in the areas concerned with intense international migrations, and new demands emerge, replacing, or adding to, the old ones. This fragmented, heterogeneous character of post-Fordism city is perceived more and more in terms of uncertainty, threat, fear, alienation (Bauman, 2001).

Interpretations of these social changes and their implications for environmental transformations are crucial in planning theory and practice. In fact, as especially geographers highlight, globalisation poses a serious challenge to the concepts of space and place, and makes them ask what meaning can be retained, or rebuilt, around these concepts (Massey and Jess, 1995). Geography is being challenged by a relational conception of space. In this view, global and local are interrelated: the global constitutes the local or is part of it. Few social groups are simply local or global: each is locked in complex and different ways to the multiplicity of global-local relations. As a consequence, the patterns of social, economic, cultural, political relations become more and more complicated and multifaceted, even in a very small area.

Another aspect of fragmentation in contemporary society is the rise of diversified demands and movements which are locally rooted, but are also unable to escape from global forces, just due to the above mentioned indissoluble interdependence between local and global (Amin and Thrift, 1994). The increase of intractable policy controversies, reflecting particular interests and frames, is related to this. Of course there is a reciprocal, but nondeterministic, relationship between actors' interests and their frames (Schön and Rein, 1994), and both influence practices.

## **2.2. Integration in practice and its different meanings and challenges**

Integration represents an important goal of planning practice in the face of the different forms of fragmentation in contemporary society highlighted above. Here two important questions arise: what notion of integration is penetrating into the planning field, and to what extent is it influenced by the acknowledgement of the above mentioned dramatic changes implied by globalisation?

Integration is an intrinsic ambiguous term. It may imply unity and coherence. Indeed, a search for unity and coherence has been for a long time now a fundamental goal of planning. But it may also hint at the need to involve different actors in the planning process, in a governance perspective. In this vein, it acknowledges the irreducible multiplicity of planning arenas, and the existence of multiple publics rather than a homogeneous 'public interest' (Sandercock, 1999).

In the planning field, the need to overcome fragmentation of actions amongst various agencies and departments and between public, private and community sectors may imply two different attitudes. In the top-down, authoritative model of planning, the emphasis is on the co-ordination of actions. In this view, the traditional sectoral approaches and the fragmentation of powers and responsibilities among various levels of government is considered inadequate to tackle complex and interrelated problems and to effectively implement policies. In the bottom-up approaches to planning, which imply the active involvement of people in the decision making process, the concept of integration has a more generative orientation, since it hints at the promotion of different forms of involvement and empowerment of people and organisations, and at the creation of spaces for dialogue, mutual learning and change.

Currently, in Italy we are experiencing an intense process of territorial policy and planning innovation (Palermo, 2001). A key concept of this process is just integration. The institutionalisation of such innovative approaches, however, have aroused intrinsic contradictions between aims of central management and control and of local empowerment (De Rita, Bonomi, 1996). Moreover, despite the acknowledgement of the complexity of local development problems, in most Italian experiences the dominant meaning of a key concept such as integration seems to be rather reductive, since it mainly hints at functional and physical-economic integration, and public-private agreement and co-ordination. Thus, it lacks one of the essential elements such as the active involvement of different actors based upon the creation of partnerships between public and private, governmental and non-governmental people and organisations, in a governance perspective.

Our idea is that search for integration in response to fragmentation cannot be merely based on co-ordination between various levels of government and policy sectors, but must imply citizen empowerment and involvement through interaction, dialogue, and learning. In the fragmented context of contemporary society, integrating plural values and multiple parties ask for a great change in knowledge frames (Schön and Rein, 1994), routines and practices. Promoting processes of mutual learning is crucial to this end: learning and change are inseparable concepts.

The increasing uncertainty and fragmentation of our society cause its institutions to be in continuous processes of transformation. We must learn to understand, guide, influence and manage these transformations. Planning must become able to transform institutions, in response to changing situations and requirements, but also to develop institutions which are 'learning systems', that is to say, systems capable of bringing about their own continuing transformation (Schön, 1973).

### **3. THE OFANTO RIVER BASIN BETWEEN ENVIRONMENTAL CRISES, INSTITUTIONAL DYNAMISM AND LACK OF SHARED KNOWLEDGE**

The Ofanto river basin is one of the many areas of environmental crises in Apulia, a region which at an aggregate analysis appears to be hurrying towards modernization (Barbanente, 2000).

The environmental crises in the Apulian Ofanto river basin, announced by the progressive disappearance of the river itself, can be considered the result of pressure exerted on the environment by intensive agriculture production and urban development. Different plans and policies have been proposed and implemented at different scales and levels for the area at hand. They are characterised by lack of strategic orientation and co-ordination, which enhance rather than mitigate the fragmented nature of knowledge and information on the Ofanto river basin. These different plans and policies continue to base their actions on an idea of crisis founded on water scarcity in a region which strongly depends on huge amounts of water transfers (Di Santo, 2001). The rhetoric behind the conceptualisation of crisis based on the hydraulic paradigm seems to prevent the formulation of any alternative image for the future of this area. Even if it is now more environmentally conscious than in the past, its invocation of limits is theoretically a warning since the rhetoric of crisis allows legitimisation of all kinds of action without any consideration of their social or political consequences (Harvey, 2000).

Deficiency in information and knowledge concerning the environment and its relationships with settlements can be also ascribed to the economic development model implemented in the area, and its transformative actions and processes of production of local knowledges.

Observed from a policy-making perspective this information and knowledge gap reveals how much the region has suffered from the lack of shared strategies. In fact, “the process by which information is produced and agreed on is crucial”, and for this reason it “must include substantial debate among key players and a social process to develop shared meaning for information.” (Innes, 1999). Moreover, dialogue and communication in themselves change people and situations. The above mentioned knowledge gap reveals how the hydraulic paradigm, because of its implicit technical rationality, has prevented building a different knowledge base in the area. Indeed, it has proposed optimal solutions requiring analysis strictly finalised to a specific project oriented by the model of water resources exploitation in order to satisfy the supply and demand law, at the same time sustaining an economy mainly based on intensive agriculture.

The Ofanto river basin, however, seems to be currently involved in an unusual institutional dynamism triggered by global discourses and policies. Changes both in spatial and in environmental policy formulation and implementation, and in the institutional organisation and arrangement are signals of a political sphere in movement. This dynamism takes root also in the innovation of planning practices outlined in paragraph 2. It gives rise to processes of ecological modernisation, while promoting the emergence of local knowledge. It also aims at developing competition between cities both inside the region and in the network of global economy. This confirms that diffusion of an environmental consciousness is paralleled by the spreading of the neo-liberal thought (Haughton, 2001).

Spatial development has been influenced by different socio-environmental transformations: on the one hand, increasing differentiation of local economy, once based on agriculture, but now sustained by globalisation potential to produce economic fragmentation; on the other, increasing visibility of environmental crises. Like other regions in a globalised economy, the enduring image of Apulia as an unitary and well-defined context is beginning to be broken up into fragments connected by fleeting and casual links (Geertz, 1999).

Thus, also the generation of new knowledge frames seem to be one of the main challenges that the Ofanto river basin poses to planners, and not only the integration of knowledge, visions, and practices, interpreted in the multicultural perspective stressed above.

#### **4. PROCESSES AND PRACTICES IN A CHANGING CONTEXT**

Problem setting was the first step to deal with the issue of the “Ofanto river basin planning and management”. Processes, practices and actors' points of view are keywords in this exploration. Considering processes and practices means looking at some relevant aspects such as mobilised knowledge (tacit-explicit), actors' frames and their integration, institutional capability to learn and the influence that this exerts on knowledge generation processes (Healey et alii, 2001). These are perspectives from which interactions between global/local discourses can be observed. Focusing on practices, where actors, resources and the environment are connected, can help understand unclear issues in the generative processes such as: how shared frames of knowledge emerge; how actors' points of view change, which factors contribute to reframing, and which inferences lead towards shared frames (Barbanente et al., 1998). Actors' points of view and their frames are relevant in order to preserve values of a story and of places, and the relevance of argumentation when actors are involved in a practice. Processes, practices and actors are not levels of analysis in a hierarchical perspective but represent particular perspectives from which different issues relevant to understanding information and cognitive needs in a generative perspective may be observed. It means to ask if and how it is possible to rethink globalisation from local practices and reciprocally how local could be seen from a global perspective thus breaking down the unifying global thought in multiple perspectives. (Escobar, 2001).

##### **4.1. Processes: changes in framing problems**

Global agendas relevant to facing water resources management in the area are those focusing on water scarcity and on sustainability.

As far as water scarcity is concerned, limited availability of water resources requires solutions that go beyond the technical scientific domain and weaken the “hydraulic paradigm” articulating new relations between science, culture and economy domains. Nevertheless availability is a relative concept, and the renewing of natural resources is not only an ecological problem. It depends on specific management arrangements with their power of exclusion, with their established rights of access, distribution, use and

sale of natural resources. Scarcity must be qualified in a specific context because it unites different conceptual images of water such as: a source of interregional conflicts, a source of conflicts over different uses of water, a platform for cooperation, a limited natural resource, a resource restructuring development, an ecological cycle. It allows for mediation between management and/or conflict resolution. While global agendas seem to have the strength to change water resources management models and practices, they do not seem to be able to affect significantly the development models because they do not define rules of competition that must be defined at the local level. Global agendas are relevant not so much for the power to structure problems at the local level, but for the strength they exert in shaping processes of construction of social realities. When interpreted in a specific context characterised by stubborn problems, emerging challenges, interests, and power relations, these agendas interact with a local political culture thus shaping new links between local/global theories and practices. These are interpretations of "myths" produced by global agenda and discourses which define control rules/laws for the future and, consequently, spaces of conflict arising from the new different rights (Kreukberg, 1999). Relations between local and global networks reveal frames and strategies that define the rules for conservation and appropriation of natural resources. These networks define criteria of inclusion/exclusion knowledges which are continually transformed into new cognitive power constellations and in new spaces and conditions for negotiating different development paths (Escobar, 1998).

Problems of equity in allocating and using water resources have been appearing in the Apulia region manifesting themselves as "war water" between different regions. Moreover the contractual approach introduced by the new global management perspective makes water an economic resource which can be sold and exchanged in a competitive market. Thus scarcity, rather than reducing the pressure on environmental systems, is increasingly exploiting them in order to satisfy at the same time agricultural and other kinds of water demand, thus defining new potential conflicts.

However, problems regarding social-environmental fragility, and different ways of thinking about management of water resources, accordingly with local specificity and vulnerabilities, recognisable even in the Apulia context, are still not being considered.

Local economies differentiation and global competition have made agriculture more and more a polluting activity, which has abandoned its environmentally cautious nature to become the main consumer of water resources, and a domain of polluting practices. These changes are strengthening the continuous appropriation of the natural territory by agricultural activities, in the past belonging to the river ecological dynamics. These same activities profit from the progressive exploitation of the river, which parallels changes in production, from extensive practices to intensive ones.

As far as sustainability is concerned, this concept loses its original ambiguity in the Apulian river basin, since it has been interpreted in the consolidated economic perspective. Eliminating ambiguity is a typical effort of technical-scientific rationality, while sustainability is a political discourse.

The diffusion of the concept of sustainability, linked to the local necessity to find new economic opportunities, is beginning to change the way in which institutions and people think of agriculture. In fact, in a sustainable touristic development perspective of the area, agriculture and the quality of its products could benefit from healthy environments. But the environmental crisis of the Ofanto river seems to slow down the research of new opportunities and the breaking down of monocultures of the mind, which should imply reconstruction of links between systems and local knowledge, needed for conservation and maintenance of long-term production (Shiva, 1997). Instead agriculture continues in its silent, polluting action.

If the concept of crises is changing thanks to the interplay between local/global discourses, in the realm of values that count in policy-making, the environmental ones have appeared by a bottom-up process triggered by local NGOs. Their role in the decisional processes at local and regional level has been that to maintain a contested space (Dryzek, 2000), a space of resistance (Dryzek, 2001) to the dominant development model.

This process has to be seen from two different points of view. The first one is related to the little room left by local government to conflictual visions about intractable/stubborn problems, such as water resources management, an approach to problem solving which could partially explain why problems of social-environmental justice have played a marginal role in local policy-making (Hampshire, 2001). In the regional context water resources management has not been seen as a conflictual terrain involving social-environmental problems, but only a terrain characterised by a gap between supplier and consumers due to water resources scarcity, and whose solution depends on scientific-technical answers available. This

consensual rather than conflictual view, supported by the local alliance between politics and economy, functioning as a pervasive mental model, has contributed to the progressive detachment between the river and local population not interested in the river degradation.

NGOs with their “deep ecology” values have come into policy-making as a factor of intractable conflict, posing the problem of the environmental preservation of the Ofanto river and reclaiming the need to implement at a regional level the environmentally oriented national policies and programs, such as river basin planning. Economic problems of a disadvantaged region such as Apulia, have made this NGOs' starting approach unsuitable. The second point of view refers to the reflective practices of NGOs, which have changed their approach shifting their attention from the affirmation of “deep ecology” values to the search of strategies able both to generate knowledge about local environment and to aggregate political as well as economic consensus. The environmental values have been reinterpreted into the sustainability framework.

#### **4.2. Practices: learning environments and the emergence of local governance opportunities**

There are many planning practices concerning the Ofanto river basin. The normative horizons which guide the action, the rationality of the process at hand, the strategic orientation, the ability to mobilise actors and resources, the ability to create learning environments based on a reflective practice, are factors which differ in every practice. Moreover, the practices can be considered fluid and changing spaces in relation to values, goals, and actors. They may open spaces of possibilities and deal with crisis situations as “entry points”, from which it is possible to start to innovate consolidated local development models and their related micro-worlds of practices and routines (Maciocco and Tagliagambe, 1999).

Public institutions and the Agency for Development and Labour<sup>2</sup> have shaped practices in the field of local development adopting an approach that is at the same time top-down and bottom-up. It is based on a instrumental-technical (managerial) rationality, that includes the use of technological tools such as Geographic Information Systems to produce knowledge on the area.

The Agency's strategies assume a managerial perspective and aim to mobilise economic resources through coalition building. In their view, the river basin is considered an economic resource functional to agricultural needs and tourist development. Considered as learning environments, these practices are similar to complex organizations in a competitive market. Ideas and tools change values and behaviours in order to pursue a competitive advantage. In this learning perspective the social complexity is lost, and concepts such as that of resources are not questioned. Knowledge integration is a matter of interest.

The environmental field shows a more articulated range of practices varying from the top-down to the bottom-up ones. The process of setting up protected areas, together with river basin planning, which is still utopia, represents a first top-down step towards a social construction of environmental planning practices. In particular, this process has triggered a plural dialogue through which it defines the public interest. Here the concept of resource is open to possible restructuring triggered by confrontation between expert and common knowledge. Techniques and methods enable knowledge integration which is essentially an expert task, accomplished by reflective professionals. Structured and formal knowledge bases are crucial for a management practice still control oriented.

The “Committee for the setting up of Ofanto Park ” and emerging research programs are practices which intersect all the previous ones. The first one, a bottom-up effort, is trying to redefine the idea of the river and to consider it as a common good rather than just a public interest, although this attempt is carried out starting from an instrumental strategic option. Knowledge used in this process is informal, while argumentation, speech acts and dialogue are oriented to build consensus through transformative mutual learning. It is important to underline that these different practices interact and influence each other. For example, this has happened in the case of the process for the institution the “The Delta of Ofanto River” protected area.

These practices are not impermeable to reciprocal hybridations, and the actors who populate them can belong not only to different social networks, a sort of changing fractal, but also to different fields of practices. Social construction of a local and/or shared knowledge, as in the case of the Ofanto river basin planning, is an evolving conversation in which complex ecologies interact in a confuse and contradictory

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<sup>2</sup> The Agency has been instituted within the context of the “Patto Territoriale Ofantino” financed by the European Community.

way (Harvey, 2000). This perspective on knowledge generation challenges the idea of institutions as complex organisations which process information, take decisions and then implement them and the related linear incremental model of knowledge and skills accumulation.

### **4.3. Actors and images**

It is difficult to understand what the Ofanto river basin is. River basin planning does not give any useful orientation in terms of intentionalities and goals referring to this specific context, since it is a chimera rather than a practice. Moreover, there is a lack of minimal knowledge and information to take up monitoring activities on one hand, and, on the other, of focused attentions concerning the river basin management problem.

The construction of a shared knowledge base, considered as a first step to deal with the issue of problem setting, requires community listening, in this case, carried out through interviews to the actors involved in the different practices considered above. These interviews made it possible to discover an initial structure for the knowledge base itself. The use of cognitive maps helped in this task (see figures 1, 2, 3 as examples). A cognitive map/filter allows the world of experience, worldview, culture and knowledge to be explored (Kitchin and Freundschuh, 2000). As concepts in cognitive maps are related to processes and actions, they help also to re-interpret practices in the light of knowledge frames of the involved actors.

From the interviews the river basin emerges as one of the many "territories of hope" (Barbanente, 2002) with its many differences. These differences are the base to represent a heterogeneous public (Young, 1990) and to define a possible conversational common ground made of narratives, stories and speech acts.

There are three images embedded in the interviews, also present in planning literature, which better than others describe the Ofanto river. They are the borderland, the region and then the river basin.

The borderland represents the exclusion of the environment from decisional arenas. It is associated to the idea of a way of policy-making concerning territories and not environments. In both these images the voice of the river is absent. The river basin image stresses the difficulty in integrating different policies and shows the dominant anthropocentric approach to environmental planning.

The Ofanto is at the same time borderland, region and river basin. It is a border between policies, territories and administrative regions. It is above all a wasteland produced by the strong anthropic pressure determined by the economic and urban development of the coastal zone, development that is now searching for new free areas in agricultural spaces. At the same time the river basin image represents a planning practice still strongly focused on an urban context, but challenged by new issues such as water resources management and environmental sustainability.

Long term processes of negotiations between different and multiple values have produced a new image of the river that is at the same time resource and wasteland, a new space in which it is possible to re-imagine and redefine the border line between the public and the private (Roy, 2001). Thus planning is challenged to redefine the idea of large area territory.

## **5. TOWARDS KNOWLEDGE INTEGRATION: CONNECTORS AND COMMUNITIES OF PRACTICE**

In the communicative action perspective integration can assume different meanings. The more known is that of a consensus building linked to the idea of conflict resolution. In this perspective there is a risk to use consensus as a unitary vision which could give an efficient answer to fragmentation and to its intractable problems. Another perspective assumes that plurality as well as fragmentation can only be managed by accepting the coexistence of emergence and intentionality.

Integration, in the explorative approach that we have assumed in this paper, is a way to go in depth into these issues without assuming that a predetermined model can be the right answer to intractable problems.

The interviews have shown how problem setting is based on concepts or "connectors" (Mignolo, 1999) that represent chunks of information on which it is possible to search an agreement. To understand how to single out these connectors is the first step to explore integration in this multiagent context, as the Ofanto

river basin appears to be. It highlights the concepts or factors that participants consider relevant to a particular issue and provides an indication of the perceived relationships among these factors. It is a way to privilege adaptive and learning processes enabling individuals and groups to identify aspects that are significant for planning and management. In the Ofanto case, the interviews have revealed the existence of a single frame common to all actors that have guided the building of each cognitive map. In this frame connectors link processes and actions.

In the case of the Ofanto river basin it is also possible to see the emergence of dynamic and changing “communities of practices” (Wenger, 1998; Guile, 2001; Gold and Watson, 2001) such as the Agency and the Committee. Here the concept of community does not imply a unified identity, but it refers to the search for an evolving agreement in fragmented societies in relation to a changing strategic perspective. Community vanishes the moment in which it gets its goals. Even if from different normative horizons (the Agency operates in a marketing perspective while the Committee acts within a solidarity horizon) both could be considered learning environments with their specific and context dependent learning processes. But both need to reflect on actors' interaction and practice, in order to build an evaluative shared history based on learning and reflective practice (Gold e Watson, 2001). They represent opportunities to open the regional governance system to a perspective of multiple values.

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