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Paradoxical territorial management: the case of peri-urban agricultural areas¹

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Abstract

The purpose of this research is to understand the paradoxical practices of territorial management and to look into ways of supporting the local actors of peri-urban agriculture. To do so, we conducted a case study into the policy implemented for the past 25 years by the urban community of the Pays d'Aubagne et de l'Etoile (Bouches-du-Rhône). Drawing on quantitative analyses of qualitative data, we demonstrate the relevance of these management practices in action. We go on to propose managerial tools that can be applied in the framework of public action in peri-urban agriculture.

Points for practitioners

The practical uses of the article are: first, to identify and understand the paradoxes, a recurring source of tension and deadlock in territorial public administration; and, second, to contribute concrete avenues of reflection and solutions to the territorial managers faced with these situations, especially in the management of peri-urban agricultural areas.

Keywords

case study, paradoxical management, peri-urban agriculture, territorial management, textual statistics

Introduction

For 40 years, rural areas have historically undergone far-reaching transformations related to changes in agricultural production systems and the phenomena of urbanisation. This has created an *original, hybrid area that seems to exist on the margin, in between, with characters that are simultaneously urban and rural, often called a grey area searching for an identity, hovering between disqualification and requalification*

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(Poulot, 2008). This area is often referred to as a *vacuum*, a *land reserve* or *green belt*, prompted by a metropolitan vision that is far removed from reality, as the administration of these areas escapes it. These terms reflect the ambivalence of the thinking that goes into their planning, limiting the emergence of relevant public. Yet, this area is increasingly seen as a *new model of urbanity*, an *intermediate area* or a *third space* that is gradually claiming its autonomy from both the city and the countryside (Poulot, 2008).

Peri-urban agriculture is part of this dynamic. The recognition of the multifunctionality of agriculture² reflects the emergence of new spaces for agricultural activities in society. Public actors are rallying round as a large number of issues are at stake.

First, food-related issues concern the quantity and quality of food supplies for the population. In quantitative terms, conventional agriculture is obviously dominant; however, in qualitative terms, consumers believe that localised agrifood systems (LAFS)³ offer more trusted brands and guarantees of quality in the wake of various food scandals (Blanc, 2013; Dubuisson-Quellier, 2008). Yet, proportionately, most of these are located in peri-urban areas (Samak, 2012).

Second, peri-urban areas are also a hotbed of environmental issues. They are seen by some as natural areas to be protected. They thus serve as nature reserves that are useful for current and future generations (Jeanneaux, 2006). Here, environmental concerns can tie up with the food-related concerns. Indeed, we have noted that farms located in peri-urban areas are more likely to enrol in LAFS, although peri-urban agriculture is neither conventional nor alternative by definition. For example, many initiatives take the form of an Association pour le Maintien de l'Agriculture Paysanne [Association for the Preservation of Small-Scale Farming] (AMAP),⁴ considered as a technical, social and economic innovation (Leroux, 2011). Today, these are thought to number over 1600.⁵ Whatever their name, these LAFS are hailed as the answer to some of the perverse effects of conventional agriculture (long-distance trade, standardisation of products, pollution of water, air and soil, biodiversity loss) (Deverre and Lamine, 2010: 61).

Third, these areas harbour cross-cutting economic issues relating to the market (outlets), employment and human capital. Indeed, the evolution of food standards towards increased consumption of fruit and vegetables, as well as the growth in consumption of organic products in France since the 1990s, or again the emergence of movements such as local sourcing of food, are primarily driven by urban populations and graduates (Blanc, 2013; Samak, 2012). Given that farmers are becoming a rare commodity in densely populated areas, the supply of agricultural production almost mechanically meets strong demand. In addition, agricultural activity in these areas can also be considered as a source of varied jobs, while proximity to an urban centre affords a potential reserve of capital and specific or innovative skills for peri-urban agriculture (Jarrige et al., 2006).

However, the discussions surrounding these peri-urban agricultural areas do not always provide local managers with management tools. Our aim is therefore to help territorial managers to build and drive their actions in this field. We have already considered the practices of territorial management in terms of the management of

paradoxes (Hernandez, 2008, 2011). The latter sets out to reconcile constraints that are usually considered to be in conflict. This then allows the organisation to enter into a virtuous cycle where ‘opposing values . . . remain in a state of creative tension and mutual braking’ (Hampten-Turner, 1992: 36). This is deemed to create a self-correction, an automatic balancing between contradictory elements.

We believe that *paradoxical* territorial management can be mobilised in projects relating to peri-urban agriculture. *How can the paradoxical practices of territorial management support local actors? In other words, what recommendations can be addressed to managers and stakeholders in peri-urban agriculture?*

We illustrate our thinking with the case of an urban community whose historically agricultural territory has experienced far-reaching urbanisation over the past three decades. In conjunction with private actors, this public organisation has developed a proactive agricultural policy over the past 20 years.

The literature review takes stock of the paradoxical approach to territorial management and explores its relevance in the context of peri-urban agriculture. In the methodology section, we first present the case study conducted, and then present the primary and secondary data collated to compile our corpus, analysed through a combination of textual and statistical analyses. The results confirm the relevance of this approach and lead us in the discussion to propose paradoxical territorial management tools at the service of the actors of peri-urban agriculture.

Analysis of the literature: paradoxical territorial management applied to the management of peri-urban agricultural areas

First, the literature analysis focuses on territorial management, considered from the point of view of paradoxical management. We then go on to determine the relevance of this approach for the management of peri-urban agriculture.

Strategic territorial management and the paradoxes

Some local public organisations develop *strategic tools* specific to peri-urban areas. At this scale, the problems to be managed do not come under a single actor or a predefined management situation. It calls for a pooling of the commitment and of the competences. To bring about their projects, these public organisations have access to management tools and implement *territorial management* practices. These practices refer to all the managerial processes that make it possible to implement and adapt their strategy (Hernandez, 2008, 2010).

We have already emphasised the inherent complexity of the territorial management of complex local, public organisations that have many different windows on their environment and that evolve in *paradoxical situations* (Hernandez, 2008, 2011). However, a paradoxical situation needs to be analysed with an approach that takes into account its contradictory elements.

Indeed, the paradox involves the *simultaneous presence of contradictory and mutually exclusive elements operating at the same time* and corresponds to the

observation that '*something*' is both the actor and the field of action (Perret and Josserand, 2003; Quinn and Cameron, 1988). In this sense, it characterises the action of territorial public organisations.

Paradoxes arise from contradictions and create situations where choice is prohibited. They also have a relativistic character, have an interactional dimension and follow a dialectical principle (Quinn and Cameron, 1988). All of these characteristics apply to situations where territorial management practices are mobilised and their paradoxical dimension is perceived by the territorial managers (Hernandez, 2008, 2011). The next section examines how this approach applies to peri-urban areas integrating an agricultural dimension.

Five paradoxical characteristics of peri-urban agricultural management situations

We take up the characteristics of management situations requiring paradoxical territorial management practices to consider their relevance to the management of peri-urban agriculture. The first sign of paradoxical management situations is omnipresent in the management of peri-urban agriculture. It is characterised by many *contradictions*.

First, the local public authorities are under no obligation to intervene in this area, but they are under pressure to do so, exerted especially by consumer-citizens and associations (Jarrige et al., 2006). Then, the areas that are relevant for the action do not correspond to the institutional perimeters.

Further, public organisations have regulatory tools (Schéma de cohérence territoriale (SCOT), Public Urban Master Plans (PLU), Structural and Sustainable Development Plan (PADD), Agenda 21) and managerial tools (partnership, network, communication) but little means of coercion, when confronted, for example, with private ownership of agricultural land. More generally, these organisations cannot roll out a local agricultural policy without involving the stakeholders. However, these are sometimes recalcitrant, whether they belong to conventional or alternative agricultural movements.

For example, in the first case, *traditional* farmers refuse to participate in this type of public action because they want to maintain their professional independence. This is a movement that seeks to preserve its identity (Banos and Sabatier, 2011), whereby farmers reject the idea of coming under urban tutelage and the drives to turn their land into a public area. Their participation in these projects, regulated and promoted by local public authorities, would instrumentalise them: the issues specific to their profession would disappear behind those of the *sustainable city* (Blanc, 2013: 33). Local public organisations also sometimes have difficulty working with alternative farmers. It all depends on how these believe that public projects meet their own concerns. For example, within AMAP, despite common initial rules⁶ and because of their commercial success, the actors continually question the meaning of their practices, their specificities and partnerships (Lanciano and Saleilles, 2011): how to be autonomous *and* participate in a local development

project? How to influence local choices in the field of peri-urban agriculture and gain visibility and political leverage at the national level?

Contradictions also appear in the rivalry between stakeholders who wish to occupy these spaces. The most recurrent contradictions concern the *competition between the development of residential and productive activities*. For households, these areas primarily fulfil a residential function: migration flows have been converging there for 50 years (Jeanneaux, 2006). Families settle there because the housing market is more affordable but also for the living environment, including proximity to natural areas (Jarrige et al., 2006).⁷ These residential developments enter into conflict with those targeting industrial, commercial, recreational, transport and agricultural uses (Jeanneaux, 2006).

This competition for the occupation of the area creates a heightened *pressure on land*. Some farmers benefit because of the increase in the financial value of their property, which has become constructible. Others, who are looking for agricultural land to farm, suffer from it (Blanc, 2013; Peltier, 2010): their farming projects depend on the price of the agricultural land, which reflects the urbanisation gains brought about by peri-urbanisation.

Furthermore, beyond the land issues, the coexistence between these different functions creates *negative externalities* for each type of use (Jarrige et al., 2006). For example, agricultural activities contribute to the creation of positive externalities in terms of landscape and living environment to which households are sensitive. However, they can also be a source of nuisances (noise, smell, health) for residents. As for residential and productive functions (non-primary sector), they also constrain the exercise of agricultural activities via the fragmentation of plots, traffic problems and, of course, the difficulties of access to land-ownership.

The second characteristic of paradoxical management situations is less significant than the previous one in the management of peri-urban agriculture. It is present in a more diffuse way: the management of these areas effectively takes place *in situations where choice is prohibited*. Territorial public organisations do not decide on the scope and characteristics (agricultural, urban, climate, etc.) of the area to be managed, nor on the legal tools at their disposal (determined by law). It is impossible for them to get rid of a plot on their territory or an area of intervention in agriculture. Administrative constraints also weigh on the possibilities of recruiting professionals specifically trained in peri-urban agricultural management.

The third characteristic of paradoxical management situations refers to their *relativistic* nature. This is very present in the management of peri-urban agriculture. The representations that stakeholders have of them will vary considerably: not only is there no consensus, but these representations can also change over time.

First, the integration of peri-urban agriculture into territorial strategies triggers the emergence of new associative actors (Terre de liens, AMAP) alongside the agricultural and institutional actors (Minvielle et al., 2011). Similarly, consumer-citizen movements have taken root in the food sector, prompting local authorities to take action in this area, for example, by restructuring supply chains for local products (distribution platforms, schools, hospitals, retirement homes, etc.).

Moreover, the representations of the actors are very variable (Peltier, 2010). Opinions are divided on the relationship between farmers, politicians, consumers and neighbours, or on the representation of a living, more or less production-oriented, agriculture. The advocates of a one-dimensional nature differ from those who defend peri-urban agriculture as an element at the service of the city of tomorrow (manufactured landscapes, quality environment, identity of the territory through its products, etc.).

Finally, the management practices of these areas are under construction, under pressure from the law, current affairs (health scandals) and local stakeholders. In agriculture, practices are evolving, even in its most recent forms. For example, some AMAP maintain the participatory and collective character of the decisions between producers and consumers. Others have moved away from them and have adopted less restrictive arrangements for exchange, due to the development of competing forms of *shopping carts*, expanding consumer profiles or commercial success (Lanciano and Saleilles, 2011; Samak, 2012).

The fourth characteristic of paradoxical management situations regards their *interactional dimension*. The *context* of each situation is the *scene of multiple interactions*. Peri-urban agriculture gives rise to spaces where standards are built jointly (Lamine, 2005), where the quality of the products, the terms of the commercial exchange, the ecology of the practices and the means of support from local associations and public organisations are negotiated in an arena that aims to be participatory (Blanc, 2013).

Stakeholders are interlinked in interactional beams of varied origin and intensity. These interactions can be *material* (physical and financial). They thus refer to the allocations of material resources of supra-regional actors (farmers' unions, associations and regional, national and European public organisations).

The interactions may also be the subject of *interpretation* (values, feelings, beliefs) (Hernandez, 2008). For example, the values of peri-urban alternative agriculture are derived from encounters between peasants with leanings towards agrobiodiversity, small-scale agriculture and anti-globalisation activists (Samak, 2012). More broadly, the interpersonal, intergroup or multi-membership networks of some stakeholders have a role to play (Blanc, 2013; Minvielle et al., 2011). However, beliefs and values can also stand in the way of partnerships. For example, the representatives of the conventional agricultural world are sometimes confined to their traditional role of defending sectoral interests: the peri-urbanisation of their cultivation areas is not seen as a source of renewal and innovation (Peltier, 2010).

Finally, paradoxical management situations are part of a *dialectical* principle (fifth characteristic).⁸ The territorial public organisation is active (the determination and implementation of actions) but not autonomous. Those in charge of agriculture have an organisational capacity (prescription of behavioural norms, relative control of part of the resources, the principle of subsidiarity, delegation of powers). However, they remain *intrinsically* dependent, constrained by their environment (choice of private landowners, etc.).

This tension between autonomy and dependence is also found among the stakeholders. Farmers have a certain freedom in their professional choices, but they are also dependent on changes in the Common Agricultural Policy (Bureau and Thoyer, 2014). These tensions also apply to alternative agriculture. Thus, 2010 saw the official creation of the Interregional Movement of the AMAP (MIRAMAP), to strengthen the cohesion between AMAP. However, while MIRAMAP may guarantee a certain ethic (it should be imposed on everyone), the AMAP demand a growing right of scrutiny (Lanciano and Saleilles, 2011). The characteristics of management situations requiring paradoxical territorial management practices are therefore relevant in peri-urban agriculture.

Methodology

We will first present the case of the urban community of the Pays d'Aubagne et de l'Etoile (CAPAE), then the data collection process and finally the precise methods of analysis followed.

Presentation of the case

We chose this case for several reasons: the CAPAE represents a historically agricultural area that has experienced intense peri-urbanisation. Since 1990, it has pursued a proactive policy in terms of agricultural support, and highly mobilised associative and private actors created the first AMAP there.

The study area is located east of the urban area of Aix-Marseille (1.83 million inhabitants,⁹ 3173 km²), and depends on the CAPAE (12 communes, 105,000 inhabitants, 250 km²). This historically agricultural territory¹⁰ has experienced the most rapid peri-urbanisation of the urban area (population of 60,000 in 1975; 100,000 in 2008). The most rural communities have benefited from this at the expense of agricultural land (used agricultural area of 2930 hectares in 1979; 600 hectares¹¹ in 2010). Agricultural activity has been gradually reduced in favour of secondary and tertiary activities.

For economic reasons and for image purposes, CAPAE decided at the turn of the 1990s to introduce a proactive policy (Consalès, 2001). In 1992, it instituted the Agricultural Charter of Aubagne, involving farmers, representatives of professional organisations, administrations and local authorities. It acts on two fronts: land (Plan d'Occupation des Sols and Plan local d'urbanisme), agreement with the sociétés d'aménagement foncier et rural (SAFER), and the terraces recovery programme funded by the Management Fund for Rural Areas); and the economy (modernisation of the irrigation system, creation of a *Jardins du Pays d'Aubagne* brand to promote local production and an Agricultural Technical Studies Center (AACC)). In 2008, a participatory process was launched to rewrite the Agricultural Charter in accordance with the new regulatory framework (Loi d'Orientation sur l'Aménagement et le Développement Durable des Territoires (LOADDT), Loi

d'orientation agricole (LOA), Loi Solidarité et Renouvellement Urbain (SRU), Grenelle I and II). This led in 2011 to the adoption of a new charter, now included in the objectives of the SCOT, Agenda 21 and the Climate Plan. The PADD and the adoption of agricultural soil protection tools (protected agricultural area, perimeter of protection and development of agricultural and natural peri-urban areas) are under discussion.

This territorial policy was accompanied by a strong mobilisation of the associations and private players in local agriculture, either as part of the public initiatives or parallel to them. Here are two illustrations. The AMAP system was born here in 2001.¹² The Ferme des Jonquiers project came to fruition in 2014 after three years of negotiations, through partnerships between public structures (CAPAE, Region), para-public structures (SAFER, Chamber of Agriculture) and private structures (farmers, landowners, the associations Terre de liens/private citizen savings fund). It concerns the purchase of a farm of 3.5 hectares with residential and farm buildings, purchased by the CAPAE and Terre de liens. The operation was made available to a couple of farmers.¹³

Description of the corpus

In this case study, we compiled, collected and analysed 41 documents (corpus). Of those, 13 are primary data: semi-structured interviews¹⁴ conducted between May 2013 and March 2014. The interview guide focused on the issues and methods of local public action in the field of peri-urban agriculture (territorial management tools deployed for internal management, driving of the action and management of the organisational environment).

The secondary data are 28 internal documents, sometimes public, of the stakeholders of peri-urban agriculture (SCOT, Agricultural Charters, PADD, PLU, Agenda 21, Climate Plan, territorial diagnoses, annual reports and, in particular, press releases).

We assigned five variables to each document. The modalities then break down the documents within each variable (see Table 1). Each method is sufficiently represented in the corpus.

Table 2 shows some examples of the coding of the 41 documents of the corpus.

Textual statistical analyses

Using the IRAMUTEQ software, we summarised the content of the corpus. The major advantage of textual statistic methods is that they process the texts as they were written or collected without interpretation or codification via the intervention of a mediator (Lebart and Salem, 1994).

We performed quantitative analyses of qualitative data, both cluster analyses (classification) and factor analyses (structuring). These are recommended when the researcher is faced with a large mass of data they wish to condense,

Table 1. List of the variables (bold) and their modalities (italics) used in the corpus of documents (all the figures are the author's own).

Nature of the document	<i>Primary data, secondary data</i>
Terrain studied	<i>Generalist (principles applicable on the CAPAE), local (precise application)</i>
Origin of the source	<i>Researcher, local public organisation, state, public establishment, association, farmer</i>
Type of document	<i>Scientific publication, interview, report, press release, planning document</i>
Date of publication	<i>2002 to 2014</i>

Table 2. Examples of coding referencing each document in the corpus.

Entretien avec C.H, élue au développement durable, CAPAE, 2013⇒*nat_prim *ter_loc *s_opl_elu *t_int *d_2013
Entretien A.V, chargé de mission Chambre agriculture 13, 2014⇒*nat_prim *ter_loc *s_etp_chagri *t_int *d_2014
SCOT rapport diagnostic général CAPAE, 2012⇒*nat_sec *ter_loc *s_opl_elu *t_docurb_scot *d_2012
Rapport séminaire Terres en villes – Aubagne, 2002⇒*nat_sec *ter_loc *s_asso_terreville *t_rapp *d_2002

categorise and structure to make them more intelligible. They are therefore often used in exploratory research or research with an empirical focus, which is the case of this study.

The main objective of the cluster analyses (here, a top-down hierarchical classification) is to group objects into homogeneous categories so that those inside the same category are very similar and those in different categories are very dissimilar. The factor analyses, for their part, simplify data by highlighting a small number of general factors or key dimensions.

Results: demonstrated paradoxical characteristics

The corpus contains 298,485 occurrences (words), 10,498 reduced forms (lemmatized¹⁵) and 4169 hapax.

Top-down hierarchical classification: contrary forces to be channelled and exploited

Five significant categories emerged.¹⁶ We present them by highlighting the paradoxical characteristics that they feature (see Figure 1).

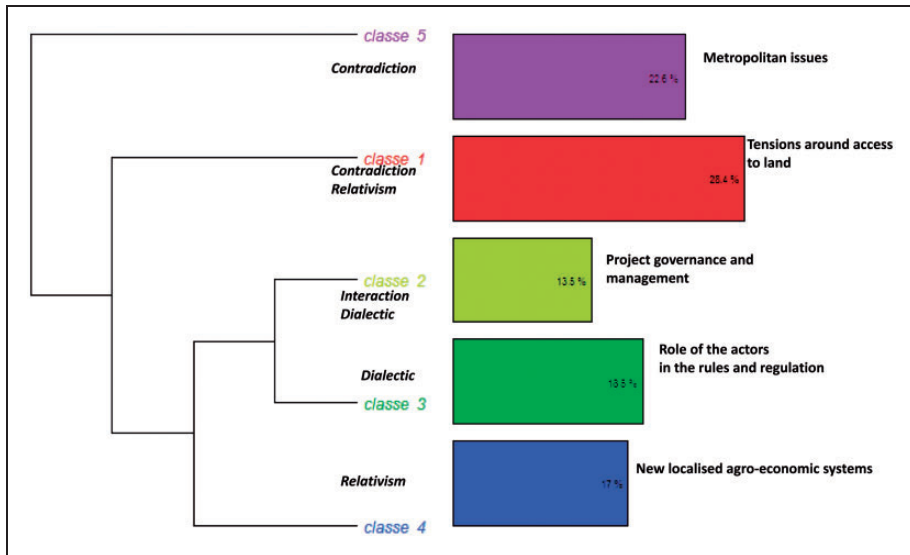


Figure 1. Results of the top-down hierarchical classification (dendrogram): division and size of the categories (in % of the classified corpus).

Three categories unveil *contradictions* that are characteristic of paradoxes. These are categories 5, 1 and 4.

Category 5¹⁷ shows the *metropolitan issues* of the CAPAE, that is, housing, transport, geography of the territory, its population and consideration for the environment. The concept of *risk* (conflict) is very present, as are the notions of *attractiveness* and *development*. Here, we see the competition between different land uses. In the anti-profile of this category, the most significant words (those least related to the category), are *agriculture*, *farmer*, *agricultural*, *trade*, *production*, *association*, *land* and *food*. Indeed, agricultural issues do not appear in this category. It would appear that peri-urban agriculture is not considered a significant metropolitan issue, not even from an economic point of view.

These *contradictions* are associated with another marker of paradoxical management situations, their *relativistic* nature, in Category 1 relating to *Tensions around access to land* and Category 4, dubbed *New localised agro-economic systems*.

The most significant words of the first concern the financial dimension in the process of the transmission of farmland, the socio-demographic profiles of farmers, the means of occupation of land, the characteristics of the land, agricultural activities and their difficulties. We identify two types of contradictory interests of access to land. On the one hand, the owners want to keep it or sell it with a speculative purpose. On the other hand, those who want to move there, mostly with *new agricultural profiles*, wish to acquire or rent it for its cultivation. Access to land also crystallises the rhetoric, as Category 1 gathers a significant majority

of respondents (farmers, CAPAE elected councillors responsible for agriculture, CAPAE administrative staff, Centre d'études techniques agricoles (CETA) technician, adviser of the Chamber of Agriculture, members of the associations Terre de liens, Terres en ville).

Category 4 sheds light on the contradictions arising from the emergence of new LAFS. Tensions emerge between the traditional, conventional food system and an alternative economic system offering new methods of production (organic, reasoned), distribution and ultimately consumption.

Tensions over access to land, the development of LAFS, prompt actors who are very different in terms of their status, their purpose, their practices and their beliefs to enter into contact or even work together on localised projects (Blanc, 2013; Peltier, 2010). They reveal very *relative* representations of peri-urban agriculture.

Categories 2 and 3 relate more specifically to the peri-urban agricultural management arrangements. They incorporate other features of paradoxical management situations: the *interactional* and *dialectic* dimensions.

Category 2 highlights *governance and project management*. Its lexical field concerns the *actors* and *actions*, from the viewpoint of governance, its *concrete measures*, *approaches* and *procedures*. A professional vocabulary of project management emerges. This is in a context where territorial experimentation seems common. These emerging management practices integrate dimensions that are based on partnerships and collaboration in order to increase their legitimacy. The role of governance in project management appears. Management situations in peri-urban agricultural areas, caught between cross-influences (in terms of practices and values) are hybridised. Here, we find the *interactional* characteristic. Partnerships, collaborative approaches and dialogue among stakeholders are likely to promote the dissemination of new management arrangements.

Category 3 is concerned, for its part, with the *role of stakeholders in the regulation*, including statutory regulation, of this field of local public intervention. Logically, the significant lexical field relates to the actors, mainly public, and to the tools and instruments available to them. Category 3 demonstrates the central place of public authorities and organisations in the regulation and supervision of the management practices of peri-urban agricultural areas.

The *dialectical* principle of paradoxical management situations is present in both categories. Public actors can be proactive, nationally (laws) but also locally. Their management tools are planning documents and various policy instruments (funding, pre-emptive right, communication to support local agricultural production, supply of public canteens by peri-urban farmers, etc.). However, these voluntary initiatives are still constrained (but not paralysed) by interactions of dependency. The results show that the significance of other metropolitan issues pushes peri-urban agriculture into the background. Otherwise, it is difficult to compel private owners to *play the game of peri-urban agriculture according to the same rules*: those who own land can refuse to sell it to public actors on the grounds that they want to maintain agricultural activity (Banos and Sabatier, 2010). Even

territorial public organisations that choose to invest in the development of peri-urban agriculture are faced with the choice of farming methods by farmers (conventional versus alternative agriculture).

Factor analysis: intentions and actions dissociated in space and time

We find the characteristics of paradoxical management situations in the results of the factor analysis, which summarises the classification results in a factorial design.¹⁸

Factor 1 corresponds to the *use of space*. It sheds light, in particular, on the *contradictory* and *relativistic* character of the management of peri-urban agricultural areas. This factor clearly precludes access to land (Category 1), central to the peri-urban agricultural function, and the metropolitan issues (Category 5), where agriculture is excluded. The latter does not come into play when it comes to articulating all the other metropolitan functions that the territory faces (accommodation, travel, environment, economy). Category 4, which refers to the new localised agro-economic systems, is also located on the left side of the factorial design. Indeed, peri-urban agriculture, both in its main problem (access to land) and its practical implementation, seems to be far from the metropolitan issues.

Factor 2 is *temporal* and reveals the more *interactional* and *dialectical* dimensions. It opposes the temporality of the discussion with that of action. This axis combines Categories 1 and 5, which were previously opposed. They present the issues and tensions between metropolitan functions that are taken for granted (Category 5), but also the more emerging ones of peri-urban agriculture (Category 1). However, they say almost nothing about the concrete management arrangements mobilised to make them operational. However, Categories 3 and especially 2 and 4 are all about action. Category 4 describes more specifically the production, marketing and organisation of alternative peri-urban agriculture, without overlooking its difficulties, constraints and even contradictions. Category 2, also focusing on action, reflects the terms and conditions of the governance of these areas. Management and professionalisation are highlighted for the purpose of legitimising these territorial management practices. Category 3 occupies more of an intermediate position, although tipping more towards action, taken probably in that direction by the tools and instruments available to the public authorities to achieve their strategic intention.

The management tools of paradoxical territorial management at the service of the actors of peri-urban agriculture

As we have seen, managing paradoxes means articulating conflicting evidence and reconciling the constraints usually seen as opposed. Territorial management practices therefore play an essential role as an interface in the management of the paradoxes faced by territorial public organisations, particularly in peri-urban agriculture.

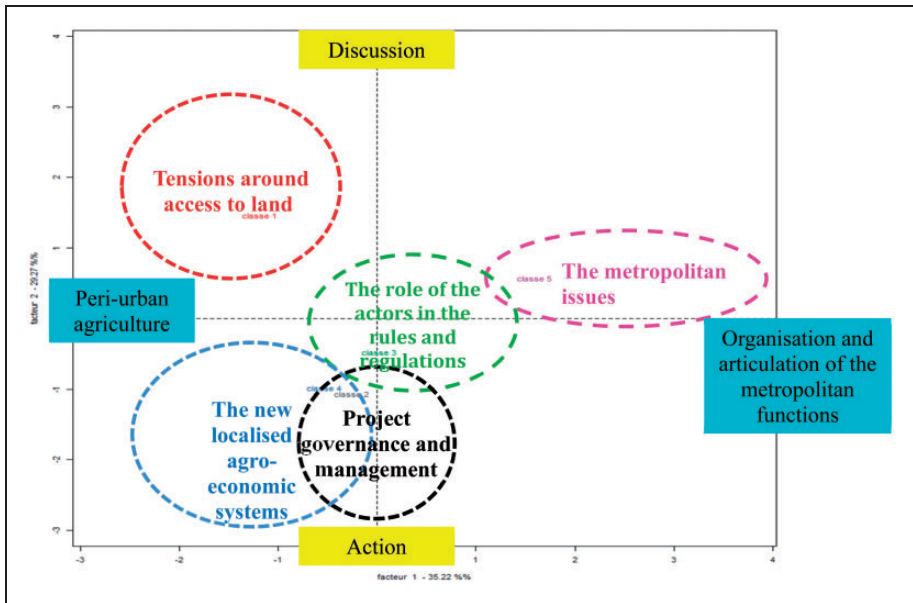


Figure 2. The five categories in the factorial design.

The goal is to balance these conflicting elements with organisational practices that are themselves ‘paradoxical’. Perret and Josserand (2003: 166) have developed a typology based on two axes: one temporal and spatial; the other distinguishing the treatments of the paradox. We have adapted it to territorial management practices (see Figure 3).

The first, vertical axis categorises the methods of articulating the dualities of the antagonistic couples, based on the distinction between the synchronic and diachronic dimension put forward by Ford and Backoff (1988). This means that the contrary elements can be articulated either in time or in space. The second, horizontal axis features the types of paradoxical organisational practices. Two are selected here to allow the expression of contrary dimensions: differentiation and dialogue.

We can take up these practices by applying them to the management of peri-urban agricultural areas, starting with *differentiation*. First, the *sequential practices* make it possible to understand an action as a series of sequences in a diachronic perspective. A task is split into multiple processes, each with more emphasis on one of the opposite poles of the paradox. The distinction between the strategic and operational aspects of peri-urban agricultural policies follows this logic. Organisations differentiate temporally the diagnostic phases (inventory of peri-urban areas and agricultural activities), the development of regulatory documents (PLU, SCOT) or proactive documents (Agricultural Charter, Agenda 21), programming, then the implementation of actions (CETA, professional

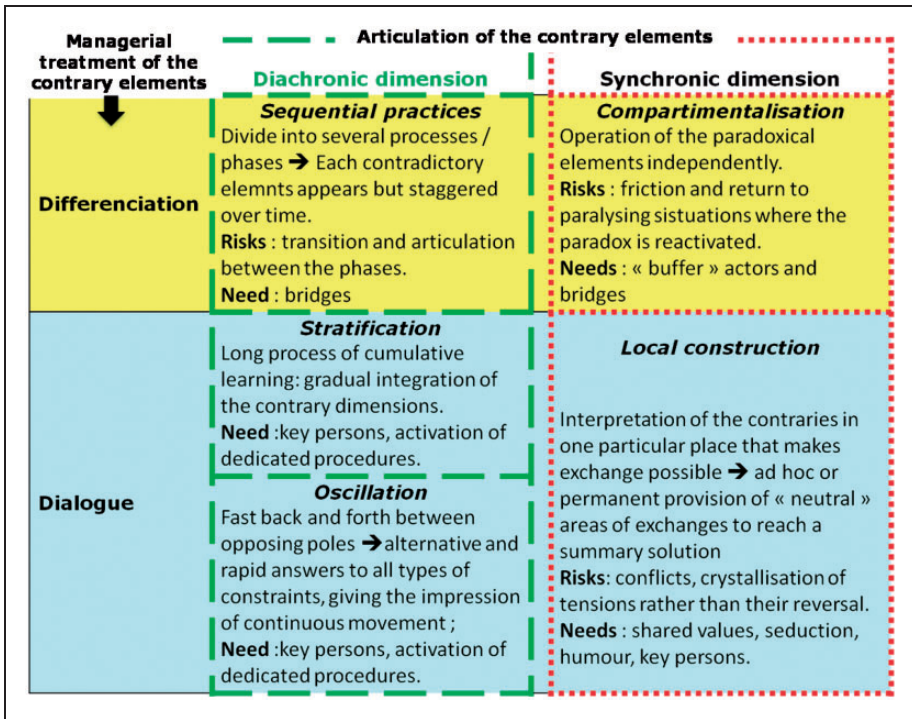


Figure 3. Paradoxical territorial management practices.

representatives, associations). In each phase, mainly strategic or operational elements come into play. This takes into account the contradictions inherent in the paradoxical situation (priority issues versus agriculture, access to land, coexistence between conventional and alternative practices), while separately considering the impact of each of these facets on the overall process (driving of a peri-urban agricultural policy).

However, the sequential differentiation is both useful and tricky: useful because it helps manage the contradictions inherent in the paradoxical situation; tricky because this exercise is not devoid of difficulties, such as the problems of transition and articulation between phases. In the territorial organisations, it is, above all, the support capability of the management, general directors and politicians that establishes continuity and homogeneity between these phases. In the case of the CAPAE, the municipal team, including the first magistrate, played this critical role at the launch of the policy (1990–1992, first Agricultural Charter) and its relaunch (2008–2011, second charter).

Subsequently, *compartmentalisation* considers public planning via its components and simultaneously (synchronous). The opposite poles of the paradox are expressed without rejecting either because they are found in different *places*. These are, for

example, symbolised by separate locations on the chart. At the CAPAE, the 'Urban planning, SCOT', 'Planning and Sustainable Development', 'Transportation and Travel' and 'Economics' services are separated. Ideally, departments that incorporate paradoxical elements must work independently. Within the framework of partnership initiatives, such as peri-urban agriculture, the locations are partner organisations (CAPAE, AACC, SAFER, Chamber of Agriculture, etc.).

However, compartmentalisation techniques are simple neither to activate nor to maintain. Indeed, contacts between compartmentalised elements are inevitable. They must therefore be anticipated. For this, interfaces (steering committee) or resource persons (project manager) are to be appointed. The development of formal procedures also plays a role by specifying the operating rules to all.

Establishing bridges is also the task of communication tools, to avoid the hermetic separation of the compartments. Information or advisory meetings and training sessions are recommended to protect the cohesion around the peri-urban agricultural action. The aim is to explain or remind stakeholders of the decisions, their implementation and the difficulties encountered. Communication also serves to clarify who does what so that everyone can refer to them efficiently.

There are also paradoxical territorial management practices using the technique of *dialogue*. Stratification and oscillation are two of them in a diachronic logic.

When building an exchange network with other organisations, territorial organisations deal with paradoxes through dialogue, specifically through a *stratification* technique. This means a cumulative learning process, through which the organisation gradually integrates the contrary dimensions of the paradox. Stratification is not just a succession of phases because it refers to a cumulative perspective. The phases do not simply follow each other, they feed each other. Moreover, the contrary inputs and elements of each of them are integrated into the overall process by the action of key persons or the activation of dedicated procedures. Membership of networks (Jardins du pays d'Aubagne, AMAP, Terre de liens, Terre en ville) is part of this.

Oscillation refers to the principle of cutting into successive phases peculiar to diachronic logics. It involves rapid back and forth movements between opposing elements of the paradox. The high pace of transition from one pole to the other responds quickly and alternately to each type of constraint, giving the impression of a continuous movement. Oscillation is used to articulate the stakeholders of the peri-urban agricultural policy. For this, the organisation must be reactive or proactive with regard to the demands of professional farmers, landowners, residents, businesses and mayors of the municipalities of the CAPAE, but is also faced with the changes in demand for food and the regulations. It involves the organisation of consultations. For example, two agricultural forums were held in 2010 and 2011 to rewrite the CAPAE Agricultural Charter. They gathered 250 people (politicians, farmers, representatives of associations, institutional partners, citizens), whose collective work formed the basis for the Charter.

The last practice referred to here is *local construction*, taking into account the stakeholders, through the creation of locations (sometimes symbolic) where opposing elements can exchange. Local construction is done with participation and

partnerships. The modes of participation and consultation available to the territorial managers are extremely numerous. The forums mentioned earlier are part of them, as are the Citizens savings mobilised in the Ferme des Jonquières project. Partnerships, in turn, have been largely mobilised since the launch of the agricultural policy of the CAPAE. One of them led to the creation of the CETA, an association mainly financed by the CAPAE and coordinated by farmers to facilitate agricultural development. Note also that local construction is not without its difficulties, mainly related to conflict management. Communication and territorial coordination still play a major role.

Conclusion

We applied the results of previous work on paradoxical territorial management to the management of peri-urban agriculture. The approach seems promising, even if it is based for the moment on a single case study.

However, we found that the paradoxical practices of territorial management can be of assistance to the managers and stakeholders of urban agriculture. We have presented several so that these actors articulate the contradictory elements of the paradoxes they face. The sequential division and compartmentalisation (partnerships, briefings, training, project management, procedures, etc.) make a distinction between constraints perceived as opposed, while stratification, oscillation and local construction (consultation, participation, forums, networks, etc.) nurture the dialogue between them.

However, the specific application of these managerial treatments to the paradoxes of managing peri-urban agriculture ultimately depends on local actors. These act on sometimes new and often restricted territories. According to Raulet-Croset (2008), in this context, the actors do not have (or have only few) prescribed action routines. The likelihood of the emergence of innovative management practices is therefore high. Due to the lack of *ready-made answers*, players are encouraged to draw on their knowledge and skills, take initiative, and be creative. As regards agricultural peri-urban areas, the *relevant* scope of the action is always different, and often far from an administrative boundary. It encourages stakeholders to innovate.

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Notes

1. This article is a revised version of a paper presented by Hernandez Solange and Aillaud Elsa, 'Une lecture paradoxale des situations de gestion des espaces agricoles périurbains? Une analyse lexicale multidimensionnelle du territoire aubagnais (Bouches-du-Rhône, France)' ['A paradoxical reading of the management situations of peri-urban agricultural areas? A multidimensional lexical analysis of the Pays d'Aubagne (Bouches-du-Rhône, France)'], at the International Symposium MED 7 'Societal governance and

- innovative public management: Challenges within the Euro-MENA area?', Rome, 8–10 October 2014.
2. Laws No. 99-574 of 9 July 1999 on Agricultural Guidance, No. 2005-157 of 23 February 2005 on the development of rural territories and No. 2010-874 of 27 July 2010 on modernising agriculture and fisheries.
 3. We refer here to systems that claim to break away from the 'global', 'dominant' or 'conventional' agri-food system, regardless of their designation, such as alternative agri-food initiatives, local food systems, sustainable agri-food systems and alternative agri-food practices (Deverre and Lamine, 2010: 57).
 4. The AMAP correspond to a normative vision of the profession of farmer and the purposes of farming, in reference to a non-capitalist way of life, focusing on work and remuneration, and an agriculture adapted to the constraints of natural, biological and meteorological factors (Martin, 2005: 218).
 5. That is, 50,000 families and 200,000 consumers in 2012 (Inter-Regional Movement of the AMAP).
 6. AMAP Charter, filed at the National Institute of Industrial Property.
 7. Although nature consists of cultivated fields or orchards, or even the gardens of the adjoining dwellings.
 8. The principle of tension/opposition between two terms or two situations, and the overcoming of this opposition.
 9. All data, unless otherwise stated, are available on the Institut National de la Statistique et des Études Économiques (INSEE) website (http://www.insee.fr/fr/themes/document.asp?reg_id=5&ref_id=20320)
 10. In the late 1980s, about a thousand indirect jobs are still dependent on agriculture (Consalès, 2001).
 11. With a total of 1500 usable (Agricultural Charter (<http://paysdaubagne.fr/competences/agriculture-foret-agriculture-periurbaine/la-charte-agricole>), CAPAE, 2011).
 12. Now, the short marketing chains concern 43% of the production of fruits and vegetables of the CAPAE and 27% are certified organic or sustainable agriculture.
 13. The farm is next to a business park. Initially, the owners of the agricultural land had signed a sales agreement with the company developing the park to provide more parking spaces. When the SAFER received the declaration of intention to dispose of the agricultural land, it contacted the local authorities concerned to try to find an alternative solution. The negotiation between the various parties made it possible to keep the agricultural part for agricultural purposes.
 14. The interviews were as follows: four farmers, three CAPAE elected councillors (sustainable development, economic development, agriculture), four administrative staff (director of the CAPAE economic department, technical advisor from SAFER, CETA technician, adviser from the Chamber of Agriculture), and two representatives of associations (president of Terre de Liens Provence Alpes Côte d'Azur (PACA), representative of Terres en ville PACA).
 15. Lemmatisation of the corpus eliminates the hapax (words that occur once in the corpus), the endings and suffixes that make it possible to bring the words down to their root. For example: 'agricultural' (975 forms), 'agricultural' (plural in French) (820 forms) → after lemmatisation = 'agricultural' (1795 forms).
 16. In total, 7114 classified segments of 8216 (86.59%).
 17. Of 7114 categorised text segments, 1604 belong to Category 5 (22.6%).
 18. Two factors reflected nearly 65% of the variance.

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