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# Local public authorities' and French mainland landscape advisers' perception of landscape in Mayotte Island: The issues of quality of life in a developing region

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# Local public authorities' and French mainland landscape advisers'

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#### Keywords

Landscape planning; quality of life; public authorities; perception; Mayotte; overseas territory

#### Abstract

The European Landscape Convention (ELC) has affirmed and legitimised the role of the landscape in the quality of life of people, emphasizing the importance of both remarkable and ordinary landscapes. Therefore, the convention should ensure that landscape issues are taken into account everywhere - in rich and poor regions and in different cultural contexts especially where the term 'landscape' does not exist in the local languages.

We choose to study Mayotte, a French Overseas Department off the east coast of Africa, characterised by a particular territorial context with similar issues to those of the countries in the Global South. The aim of our research was to reveal how the concept of landscape is understood and defined by local public authorities and their landscape advisers and the extent to which the wider framework of the ELC is relevant to encourage landscape to be effectively taken into account in land use planning. Semi-structured interviews with 14 key stakeholders (local authorities and landscape advisers from mainland France) brought to light different ways of understanding the term 'landscape', and different approaches for including the issue of the landscape in land use management. The results show how integrating the issue of landscape tools. This adoption is still characterised by a top-down approach in which the French legislation and State services play an important role but which nonetheless clearly highlights the potential of these tools to coordinate a territorial project.

#### 1. Introduction

The concept of 'landscape' has been interpreted and defined in multiple ways and has 2 historical layers of meaning (Berque et al., 1994; Cosgrove, 2006; Fairclough, 2016; Olwig, 3 2019; Roger, 1997). One of the narrow definitions involves defining landscape as only being 4 5 linked to a particular cultural context. For instance, in France, Berque suggested (Berque et 6 al., 1994) that the concept of landscape, 'paysage' in French, could be defined through a 7 socially constructed vision of the environment. Thus, he considered that some societies had 8 cultural backgrounds that give them a way of seeing and representing their surroundings as 9 landscape while others did not. In his works, he defines criteria 'without which we cannot talk advisedly about landscape in relation to this or that culture' (Berque, 2013): (1) a written or 10 oral literature praising the beauty of the site which includes (1b) toponomy, (2) ornamented 11 gardens, (3) architecture designed to provide beautiful views, (4) paintings representing the 12 environment, (5) one or more words used to express the idea of 'landscape', and (6) explicit 13 14 reflexions on the 'landscape'. Regarding these criteria, Berque (2013) and also some 15 ethnologists (Lamaison & Cloarec, 1991) consider that the concept of landscape is a cultural construction that has not always existed or indeed existed at all in every society. For them, the 16 17 landscape exists at a certain time in history and in a certain culture. Thus, according to Bergue (2013) only China since the 4th century and the West have developed a landscape culture, that 18 is to say, they have developed 'a landscape theory' (Ibid), and were able to conceptualise the 19 landscape. The idea of a landscape theory supposes the landscape is made a subject of thought 20 21 through various discourses thereon; actions whose direct or indirect objective is the 22 landscape; and influence on the forms of governance of the territory (Berque, 2013; Gauché et al., 2019). 23

These criteria, however, are mostly based on an aesthetical and contemplative understanding 25 26 of the concept of 'landscape'. Conversely, the definition set out in the European Landscape 27 Convention (ELC) provides a broader vision of landscape as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' 28 (Council of Europe, 2000a, article 1). In this definition, the emphasis is placed on the 29 perception and experience of people. Landscape is considered 'as an important part of the 30 31 quality of life for people everywhere in urban areas and in the countryside, in degraded areas as well as in areas of high quality' (Council of Europe, 2000a, Preamble). 32

In this paper, we choose to study how the concept of landscape is understood and used in 33 local development projects, based on the wider framework defined by the ELC. We study the 34 territory of Mayotte, French Overseas Department in the Mozambique Channel where the 35 term 'landscape' exists in the official language (French) but does not exist in the two local 36 vernacular languages. Little work has been carried out to study the way people perceive and 37 grasp this notion of landscape in the ultra-peripheral regions of the European Union. These 38 39 areas are characterised by a strong colonial history, a rich variety of cultures, and a contrasted 40 development that is often very different from the economic situation in European countries, even though they actually are an integral part of the European Union. Therefore, our study 41 42 aims first to enhance knowledge about landscape issues in one of these territories, Mayotte Island, seeking to understand how the local public authorities and the landscape advisers 43 understand the notion of landscape and how they adopt it in their development projects. 44 Second, our objective is to show how the broader definition of the landscape can be relevant 45 to encourage landscape to be effectively taken into consideration in other cultural contexts 46 47 outside Continental Europe. Since French is the official language used by the public authorities, the study reported in the paper used the term *paysage*, with the connotations 48 associated with this concept in French. 49

The next section of this paper reviews how the ELC was rolled out and implemented in 50 51 different national context and points out the lack of knowledge concerning landscape planning outside Continental Europe. The second and the third sections introduce the case study and 52 methods used for this research, which is based on semi-structured interviews. In the fourth 53 section, the results are presented, clearly showing the multiple ways of understanding the term 54 'landscape' and the potential of landscape tools in the territorial context of Mayotte. Finally, 55 the paper discusses the wider framework of the ELC and draws conclusions thereon and more 56 specifically about its benefits for the development of a territory. 57

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1.1 Evolution of the concept of landscape: from a scenic view to a more holistic understanding

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Ideas of landscape have changed a great deal in Europe over the centuries, especially due to 62 the evolution of social, cultural, political, and scientific ideas through history (Cosgrove, 63 64 2006; Fairclough, 2016; Olwig, 2019). Originally, in the countries of Northern Europe, the first meaning of the concept of landscape, Landschaft, referred to the place occupied by a 65 polity with its history and customs (Olwig, 2019). However, the term became identified with 66 scenery during the period of the Renaissance and the Enlightenment and referred to a pictorial 67 representation that is not specific to any place, polity, or history (Olwig, 2019). This meaning 68 69 considerably influenced the modern Western idea of landscape in Europe, which is still associated with pictorial and scenic aspects. The English 'landscape' and the French paysage 70 embrace these two meanings: the scenery and the land as country ('pays' meaning 'country'). 71 However, the English 'landscape' is perhaps more ambiguous, land meaning both country and 72 soil, whereas in French 'pays' does not carry the meaning of soil (Olwig, 2007). In this sense, 73 landscape can represent a region or a country but also simply a physical object. 74

In the late 20<sup>th</sup> century, the rise of environmental consciousness and the influence of ecology 75 76 provided an alternative vision of landscape more associated with the notions of *nature* or environment (Scazzosi, 2004). This association gradually paved the way for a holistic 77 appreciation of landscape rather than a strictly visual one (Makhzoumi, 2002). The context of 78 globalisation and the major challenges that have resulted from this - industrialisation, 79 urbanisation, transport, and so on - especially play a role in this broader idea of landscape. 80 81 Ecological threats and the acceleration of the transformation of landscapes due to the world economy have raised awareness about the importance of preserving and managing landscape 82 areas with historic or natural values (Jones et al., 2007). Thus, in 1993, the Mediterranean 83 84 Landscape Charter was adopted in Seville (Spain) to implement a landscape conservation and 85 management policy in response to the many ecological threats in this area and to preserve the natural and cultural heritage of the Mediterranean civilisations (Council of Europe, 2000b; 86 87 Sarlöv Herlin, 2007). The Charter defines landscape in a complex way (Sarlöv Herlin, 2007) but insists on the social, economic, and cultural factors, which inspire the definition of the 88 European Landscape Convention (ELC). Furthermore, in 1995, the European Environment 89 Agency and the IUCN published reports suggesting that the Council of Europe should 90 91 implement a convention on rural landscapes. The first version of the ELC was a product of 92 these preoccupations and the growing social demand (Council of Europe, 2000b) originated in a working group made up of several international, national, and regional bodies. 93

The ELC was adopted in 2000 and challenges the traditional ways of perceiving landscape by providing a broader meaning of the term 'landscape', which is not limited to a view or a panorama of natural scenery or to environment or nature (Olwig, 2007; Scazzosi, 2004). Conversely, the definition of the landscape given by the convention is consistent with the older meaning of landscape as 'a polity and its place' (Olwig, 2019). The relationship between people and the landscapes they shape is stressed. The landscape is indeed seen as 'an

expression of the identity and character of the people and polity that have shaped it as their 100 101 place' (Ibid). This is what it is emphasised in the ELC: 'landscape contributes to the formation of local cultures and [...] is a basic component of the European natural and cultural 102 heritage' (Council of Europe, 2000a, preamble). The whole territory is considered as 103 landscape 'in areas recognised of outstanding beauty as well as everyday areas' (Council of 104 105 Europe, 2000a, Preamble). It recognises the role of landscape in people's well-being and 106 encourages the democratisation of the concept by insisting on the role of ordinary people in landscape planning (Roe, 2009). Therefore, in this view the 'landscape is not only about the 107 view, it is about how we live collectively' (Fairclough, 2016). 108

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#### 1.2 The ELC: a challenge in spatial planning

The European Landscape Convention was signed in Florence and implemented under the 111 auspices of the Council of Europe throughout many European states. As a supranational 112 113 treaty, it establishes general principles rather than detailed procedures. Thus its 114 implementation depends on the national institutional frameworks of the European signatory countries (De Montis, 2014). A rich scientific literature on the subject has shown how the 115 ELC is understood and implemented in the signatory countries and especially highlights the 116 117 challenges of implementing the ELC's principles in different national contexts (Brunetta et al., 2018; Butler & Åkerskog, 2014; Conrad et al., 2011; Jones & Stenseke, 2011; Nitavska & 118 Zigmunde, 2017; Olwig, 2019; Sandström & Hedfors, 2018; Wu et al., 2017; Zoppi & Lai, 119 2010). 120

One major challenge is linked to the holistic vision of landscape promoted in the convention, which requires that landscape must be considered in all sectors (Council of Europe, 2000a, article 2). Landscape is often considered, however, as a field of action that is separate from its territorial context, leading to sectoral approaches rather than a holistic vision of the landscapein land-use planning (Stenseke & Jones, 2011).

Involving local people in the protection, management, and planning of landscape is a second 126 127 major challenge. The ELC encourages the implementation of a bottom-up approach through the establishment of 'procedures for the participation of the general public, local and regional 128 authorities' (Council of Europe, 2000a, article 5). There is a certain tension, however, 129 between the text of the Convention and some passages of the explanatory report (Council of 130 Europe, 2000b), the latter revealing a top-down and visual approach of the landscape (Olwig, 131 2019). Notably, in the explanatory report, the experts add the term 'visual features' when 132 133 commenting on the ELC's definition of landscape, which becomes defined as 'a zone or area as perceived by local people or visitors, whose visual features and character are the result of 134 the action of natural and/or cultural' (that is human) factors' (Council of Europe, 2000b, 135 Chapter I, article 1). Furthermore, they recommend evaluating landscapes on the basis of 136 objective criteria rather than people's perception (Conrad et al., 2011; Olwig, 2007). In many 137 138 works (Butler & Åkerskog, 2014; Conrad et al., 2011; Davodeau, 2009; Stenseke & Jones, 2011), it has indeed been shown that landscape documents and tools focus on experts' views 139 and recommendations, whereas the role of the public is restricted. Davodeau (2009) and 140 Stenseke and Jones (2011) highlight the difficulties in reconciling a 'sense of place' approach 141 based on people's perception of landscape and values, and the scientific approach to 142 landscape assessment. More rarely, it has been shown that the role of local authorities can 143 also be restricted in the development of landscape documents. For instance, the Regional 144 Landscape Plan of Sardinia (Italy) consisted of a top-down approach in which one authority, 145 146 the regional administration, has the dominant role while municipalities and other actors 'had extremely limited chances to influence the plan' (Zoppi & Lai, 2010:702). 147

All these studies clearly show the European contemporary issues linked to land management 151 and planning. However, increased studies have been carried out in other cultural contexts of 152 how the concept of 'landscape' is understood and of the ensuing consequences for land 153 154 management. Some of these studies have focused on the multicultural aspect of particular territories and the way the landscape was perceived and experienced in these contexts 155 156 (Gauché et al., 2019; Longépée et al., 2019; Makhzoumi, 2002, 2011; Menzies & Ruru, 2011; Sabinot et al., 2018; Stephenson, 2008; Taylor, 2008). These studies clearly show the 157 complexity of accumulated meanings of the concept of 'landscape' and inherent cultural 158 biases, which render the term difficult to use from one sociocultural context to another. 159 Makhzoumi (2002) highlights this difficulty in the Middle East where there is no word for 160 'landscape'. Menzies and Ruru (2011) highlight the differences in how people relate to 161 landscape in Western societies and in Maori culture. Similarly, Longépée et al. (2019) studied 162 the perception of landscape of the inhabitants in Mayotte and observed important differences 163 in the perception of landscape between people born in Mayotte and people from mainland 164 France who live in Mayotte. The term *landscape* does not exist in the vernacular languages, 165 but the terms 'hawa' and 'oulanga', meaning atmosphere and nature respectively, are the 166 closest terms to 'paysage'. The study by Longépée et al. (2019) highlights the importance of 167 an affective, immersive, and poly-sensorial dimension in the Mahorans' connection with their 168 169 environment.

These studies focus on people's perception of landscape but not on public authorities' perception of landscape or the integration of the landscape into public policies in these cultural contexts. Gauché (2015a) shows that consideration of the landscape in public policies in the countries of the Global South is at the embryonic stage.

#### 175 2. Case study

Mayotte has been a French Overseas Department since 2011. It is a small tropical territory 176 (376 sq. km) located in the Mozambique Channel, made up of two islands plus several 177 uninhabited islets (Figure 1, b). The larger of the two inhabited islands (368 sq. km) is 178 composed of four mountains of low altitudes (Figure 1, d) whose slopes have been softened 179 by erosion, thus enabling the development of subsistence agricultural land (one third of the 180 surface of the island) (Figure 1, c). Agriculture is particularly important in Mayotte since 181 many families possess their own land. Most of the towns and villages are located on the 182 coastline protected by an imposing long coral reef (160 sq. km) surrounding one of the largest 183 lagoons in the world (DEAL Mayotte, 2013). The coastline is composed of rocky peaks 184 delineating bays occupied by mangroves or beaches (Figure 1, a). Most activities and 185 infrastructures are concentrated on the coastline, which is changing rapidly due to the 186 demographic development (47,000 people in 1978, 256,500 people in 2017) (Insee, 2017). 187 188 This demographic development is partly linked to the influx of migrants who are mainly 189 Comorians (foreign population close in culture to the native one) and live in often particularly precarious conditions (most of them living in slum neighbourhoods with no connection to 190 water and electricity supply, and gaining a livelihood through informal economic activities) 191 (Figure 1, e). The Comorian population represents 48% of the total number of the island's 192 inhabitants (Insee, 2020). The Mayotte society also has an integrated French mainland 193 population whose members mainly occupy positions in the public service, especially in the 194 State's decentralised public services. 195

In recent decades, the island's increasing urbanisation and the expansion of agricultural land, due to demographic development, has considerably transformed the landscapes, especially in the loss of green areas through deforestation. In this context, the decentralised public services of the State created two landscape tools. The first one is the Atlas of Landscapes, elaborated on the model of the Atlas of Landscapes in mainland France, whose objective is to identify the landscapes of Mayotte and its characteristics and dynamics to make recommendation for its protection and management (DEAL Mayotte, 2007). The Atlas of Landscapes in France is made up of documents designed to implement the principles of the ELC particularly those set out in article  $6c^1$  (Council of Europe, 2000a).

The other document (DEAL Mayotte, 2013) is complementary to the Atlas of Landscapes and 205 takes its ideas further. It is a strategic document that seeks to implement an effective 206 landscape policy in Mayotte by suggesting courses of action to integrate landscape into 207 development projects better. This document (DEAL Mayotte, 2013) is based on a 208 bibliographical analysis of the documents produced on the landscapes in Mayotte (DAF 209 Mayotte, 2006; DEAL Mayotte, 2007; Laulan & De la Torre, 2006), and the results of 210 interviews conducted with local public authorities. It is important to highlight the extent to 211 which this document focuses on institutional discourse but does not clearly identify the 212 inhabitants' perception of landscape. 213

- 215 *Figure 1 : Set of photos taken between 2018 and 2019 by the authors presenting a) the Moya Bay (Petite-Terre);*
- 216 b) the islets of northern Mayotte; c) coconut and banana plantations; d) view of the north-western coast; e) the
- 217 precarious housing of the coastline in Mamoudzou

<sup>&</sup>lt;sup>1</sup> 'Each Party undertakes to identify its own landscapes throughout its territory, to analyse their characteristics and the forces and pressures transforming them, to take note of changes, to assess the landscapes thus identified, taking into account the particular values assigned to them by the interested parties and the population concerned' (Council of Europe, 2000a, article 6c)



a)

b)



c)



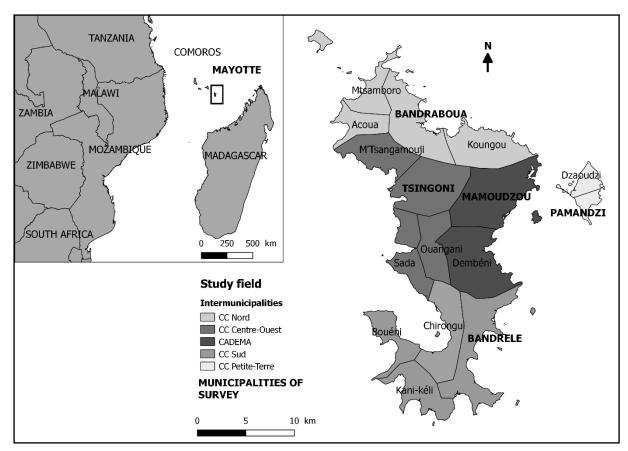
d)

## 219 <u>Study sites</u>

Given that this strategic document (DEAL Mayotte, 2013) seeks to help integrate landscape into development projects better, we decided to study the development projects which took an interest in the landscape and the quality of life. However, our study quickly showed that few municipalities on the island actually integrated this factor into their development projects.

The island is divided into five inter-municipalities (municipal groupings), as shown on Map 1. We chose to study five municipalities, each belonging to a different inter-municipality of the island and each with interesting development projects.

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Map 1. Presentation of the study area.

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Mamoudzou: The capital of Mayotte is an increasingly urbanised municipality where
 most of the public services are located. It has had its own Landscape Plan<sup>2</sup> since 2016
 - a voluntary approach aimed at integrating landscape considerations in all sectoral
 policies (urban planning, transport, infrastructure, agriculture) - and has developed
 many projects linked to the Landscape Plan (JNC Agence Sud et al., 2016).

235

Pamandzi: This municipality has carried out a project concerning the development of
 the town's waterfront. In this case, the position of the inter-municipality of Petite Terre was particularly interesting as it was in response to a Landscape Plan's call for
 projects in 2015 but was not selected.

240

Tsingoni: This municipality has undertaken a project aimed at revitalising the town
 centre, paying particular attention to the quality of life. Furthermore, the inter municipality has responded to a Landscape Plan's call for projects in 2018 (period of
 the investigation campaign).

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Bandraboua: This municipality has developed a project to revitalise the town centre
by integrating and promoting a natural area.

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Bandrélé: The municipality of Bandrélé was of great interest because of its
 development project for the town's waterfront.

<sup>&</sup>lt;sup>2</sup> The Landscape Plan is in France a tool designed to protect, enhance, and develop spaces in the form of recommendations and actions. Thus, it is also a document intended to implement the ELC's principles. It has to be interdisciplinary and prepared before sectoral planning documents. The Ministry of Ecological Transition in France launches a 'Landscape Plan' call for projects every year since 2013, and 15 projects per year are selected (<u>https://www.fncaue.com/appel-a-projets-plan-de-paysage\_2019/</u>). Mamoudzou was among the 21 winners of the first Landscape Plan's call for projects.

#### 3. Methods

Qualitative methods were selected for this study because of the complexity of the concept of 'paysage' ('landscape') itself. They offer an effective way of understanding the different perceptions and representations of landscape, through the collection of points of view, opinions, reasoned speeches, and position of the interviewees towards the landscape.

To understand how the local public authorities understand the term 'paysage' and how they 257 adopt this in their development projects, the detailed questions of our research were: (1) to 258 understand whether Mayotte's local authorities were concerned about landscapes and their 259 recent mutation, (2) to understand how they define and perceive the landscape, and (3) to 260 261 identify whether they take landscapes into consideration in their development projects. If they take landscapes into account in their projects, we wanted to know how and why they take 262 them into account, and whether the national landscape policy influences consideration for the 263 landscape. In addition, (4) the objective was to determine if the inhabitants were associated in 264 development projects and what role they play in the process (Table 1). 265

The study consisted of an analysis of the local development projects and in-depth semi-266 267 structured interviews lasting one and a half to two hours with 14 key stakeholders in local public authorities and planning organisations corresponding to approximately 24 hours of 268 interviews. The interviews were conducted from May to July 2018. One significant advantage 269 270 of using semi-structured interviews is that they allow respondents to express themselves freely on themes proposed by the interviewer. This flexibility is needed to collect the 271 opinions, views, values of each interviewee on the question of landscape and deepen each 272 topic we wish to address with them, more specifically to have details on the development 273 projects and the role of the landscape in these projects. 274

We planned to interview an elected member and a municipal officer in each town because we noted that only one person is in charge of the projects in municipalities in Mayotte. Furthermore, we interviewed an intercommunal officer if the inter-municipality was involved in the projects studied (inter-municipalities were created recently in Mayotte - the oldest was created in 2014) to gain detailed understanding of both technical and political viewpoints. However, the lack of positive responses from elected members did not help this approach.

Three elected members, five municipal officers, and two intercommunal officer, were 281 interviewed. The elected opposition members were not interviewed because the development 282 projects we selected to study did not raise political debates. Differences of opinions have only 283 recently started to emerge in inter-municipalities. We also considered it relevant to interview 284 four stakeholders who guide local authorities in their landscape planning, because they were 285 mentioned in the interviews by the local public authorities<sup>3</sup>: an officer of the Environment, 286 Planning and Housing Directorate (DEAL); an officer in a design office; a French State 287 architect; and a French State landscaper. The 14 respondents (two women and twelve men) 288 ranged from 26 to 51 years of age. Eight of them were born and grew up in Mayotte. Except 289 for one person, all of them had studied or worked in mainland France. Six people were from 290 291 mainland France and the duration of their residence in Mayotte varied from approximately two months to six years. 292

Two interview guides based on the same framework (Table 1) were produced for the interviews. There was one guide for the local authorities (elected members, municipal and intercommunal officers) and another one for stakeholders who advise the authorities about landscape issues. The objective was to understand and measure how the landscape was understood by the local authorities, what place landscape was given in the development

<sup>&</sup>lt;sup>3</sup> We interviewed all the State advisers on the landscape issue present in Mayotte at the time of the campaign survey (the DEAL, a French State architect and a French State landscaper), and interviewed an officer in the design office, which the vast majority of the development projects go through.

projects, and what place inhabitants in this process were allowed. The second interview guide had the same objectives but was intended mainly to understand the specific role of the landscape advisers and how they work with the public authorities. We aimed to understand their opinions on the local authorities' projects and the way landscape was considered in these projects. In the interviews, the term '*paysage*' was used.

Themes	Examples of Questions
Perception and representation of landscape	What is landscape for you? What definition
(1, 2)	would you give?
	Do you use this notion in your job? How?
Landscape dynamics (1)	What are the major changes you may have
	noticed to the landscapes in your
	municipality?
	Do you know how the inhabitants perceive
	the evolution of the landscapes?
Development projects (3)	Does the municipality have development
	projects that integrate an interest in
	landscape?
	What are they? Why is the municipality
	interested in considering landscape in its
	projects?
Knowledge about inhabitants' perception of	Do you know what landscape is for the

landscape (4)	inhabitants? Do you know what links the
	inhabitants have with landscape?
	Do you know if there is a demand for the
	preservation or enhancement of some
	landscapes or sites in the development
	project?
Knowledge and position on landscape	Are there any laws on landscape that make
legislation (3)	your project easier or conversely limit you
	in your projects?
	Have you heard about the European
	Landscape Convention? What do you think
	about this convention?

304 *Table 1 : Topics of the interview guides. The numbers in the table refer to the detailed questions of the research*305 *mentioned earlier in the article.*

All the interviews were recorded and subsequently transcribed. Thematic analysis of the transcripts was conducted with the aim of emphasising the different important themes in the interviews. A qualitative analysis software program, NVivo, was used to highlight the important themes mentioned by the participants. This facilitated the comparison of the different participants' responses. We identified and classified the themes and sub-themes and highlighted similarities and divergences.

4. Results

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# 4.1 Differences in the representations of landscape among municipalities and intermunicipalities

The analysis of interviews with local authorities highlighted the new character of the integration of landscape in public policies in Mayotte. The landscape is seen as something that is difficult to understand and define and more importantly difficult to integrate into landuse management. The municipal officers consider that it is a new concept from mainland France:

<sup>320</sup> 'These are requirements of mainland France that come on to Mayotte, we cannot deny <sup>321</sup> it. Even in mainland France, it is recent. Here we almost never talk about landscape. Those <sup>322</sup> who speak about it come from mainland France and have studied4 (Municipal officer, <sup>323</sup> Mahoran, 35 years old).

Some interviewees highlighted the subjective dimension of the word 'landscape', which 324 makes its adoption in land-use planning difficult. Therefore, we obtained very varied answers 325 on the definition of the landscape. On the 10 interviews with the municipalities and inter-326 327 municipalities, we obtained 28 different answers to the question: 'What is the landscape for you? How would you define the landscape?' because many interviewees give several different 328 answers to this question, not only when we ask the question, but also later in the discourse. 329 Two minor definitions link landscape with what gives a place its characteristics or more 330 generally with what surrounds us. However, the analysis of the interviews and the 331 development projects suggests three major ways of understanding the term 'landscape': 332 landscape as aesthetic scenery; landscape as an environmental issue; and finally landscape as 333 a lever to implement development projects. 334

335 *Landscape as aesthetic scenery* 

We noticed that the landscape is especially perceived in terms of its visual and aesthetical 336 337 aspect in the interviewees' discourse. Seven interviewees in the municipalities and intermunicipalities linked the landscape with a view, an image, or with beauty. Therefore, some of 338 them qualify the landscape as a concern for specialists, architects, and landscapers but not for 339 340 elected officials or land-use planners. Furthermore, the scenic and aesthetical aspects of the landscape appear out of phase with the context of poverty and the priority needs of the 341 population (water sanitation, better housing, and schools), which explains why some 342 stakeholders consider the landscape to be a luxury for those in developed countries: 343

When we build a school, we are not going to care about the landscaping aspect of the school; we are not going to care about how we insert it. This is an architect's problem, but elected members will not tell you to worry about the landscapes [...]. We are not at a level of development and open-mindedness to take this aspect into account' (Elected member, Mahoran, 49 years of age).

The connection some of the participants made between landscape issues and developed countries is manifest through their opinions on the ELC. From the 10 interviews with the local authorities, 9 of the survey participants did not know the European Landscape Convention. We therefore explained the main principles of the convention to them, especially the fact that landscape is related to the whole territory and affects people's quality of life. However, this issue of quality seems far removed from local concerns for certain stakeholders:

<sup>355</sup> 'What can improve my quality of life today? It is indeed a space where I can take my <sup>356</sup> children by car and park; it is the fact that there are not too many traffic jams but this is <sup>357</sup> because I have a car and I work [...] Compared to the national level, there is a mismatch but <sup>358</sup> between me and the average population, there is also a mismatch, there are too many

inequalities. How can we talk about quality of life on an unequal territory?' (Elected member,Mahoran, 49 years of age).

#### 361 *Landscape: An environmental issue*

362 Some participants also associated the idea of landscape with environmental issues and the conservation of nature. Most of the landscape changes on the island were described negatively 363 with interviewees highlighting the fact that the landscapes were damaged and attacked by the 364 pressure of human activities. This degradation of landscapes has led to the loss of Mayotte's 365 identity as a 'green island', especially with the development of urban areas, extensive 366 deforestation due to the cultivation of food crops, the expansion of precarious and unhealthy 367 housing environments (in particular in the uplands), and the proliferation of constructions in 368 concrete materials which were strongly disparaged by the stakeholders interviewed: 369

370 'There is a form of anarchy in town planning which unfortunately is stifling the island.
371 We cannot breathe anymore, there are no spaces between the people's homes, there is less and
372 less vegetation [...], there are no green spaces, there are no gardens' (Municipal officer,
373 Mahoran, 26 years old).

Moreover, the growing quantity of waste on the territory due to the development of the island,the expansion of the consumer society, and the difficulties linked to sanitation management are also important issues for the interviewees who denounce the impact of the waste massively polluting the urban and natural landscapes.

Thus, in most of the development projects we studied, interest in landscape is linked to the return of nature within towns through tree plantation and the creation of green, clean, and attractive public spaces. In Mamoudzou, the project manager explains that the objective of the Landscape Plan is to maintain plant cover in town and make it attractive through the development of green spaces: 'The idea is to maintain plant cover, this is the overall idea [...] For me landscape is linked to vegetation' (Municipal officer, Mahoran, 40 years old).
Likewise, in Bandraboua and Pamandzi, one of the objectives is to restore the importance of
nature through the development of green spaces:

<sup>386</sup> 'In the centre village of Dzoumogné, we would like to restore the importance of nature <sup>387</sup> for many reasons, notably thermal comfort, recreate pleasant living areas and also because we <sup>388</sup> have problems in waterproofing floors' (Municipal officer, mainland France, 32 years old).

However, this definition of landscape also creates an antagonistic vision of land-use management which opposes the development of the island to its protection. Therefore, landscape legislation is understood in terms of environmental restrictions by other stakeholders and seen by some municipal and intercommunal officers as a constraint on the island's development and modernisation:

394 'There is the forest code, everything concerning tree felling is regulated, impact 395 studies are needed. The services of the State are not too keen to see Mayotte grow, they 396 always look for the small thing to screw up a project. That is my personal opinion' 397 (Intercommunal officer, Mahoran, 35 years old).

#### 398 *Landscape: A guiding principle to make development projects*

399 Finally, the projects we studied show that landscape can be understood and used as a holistic programme and a guiding principle in several development projects. In Mamoudzou, the 400 401 Landscape Plan is used to facilitate the return of nature to the town and also to make pleasant and recreational public spaces, solve sanitation problems, protect and raise awareness of the 402 importance of natural sites, such as the mangroves of the town, and finally implement a 403 project to develop eco-friendly means of transportation. The Landscape Plan is used to 404 improve the quality of life which had degraded because population growth and urbanisation 405 are stifling the island: 406

407 'If we look carefully, the Landscape Plan is essential to everything that is going to be
408 done now in the municipality whether it be the light projects, public transport or major
409 developments and this means all projects must integrate the landscape quality objectives of
410 the Landscape Plan' (Municipal officer, Mahoran, 40 years old).

Likewise, the inter-municipality of Tsingoni has the same approach to landscape. They responded to the Landscape Plan call for projects because they see this landscape tool as a means of knowing about the different landscapes of the municipalities and also a way to implement tangible actions to improve the quality of life in consultation with people: 'We wanted to preserve the environment, improve the quality of life, enhance heritage and develop tourism' (Intercommunal officer, mainland France, 32 years old).

This way of understanding landscape is not widespread and is mostly linked to the Landscape Plan, a tool in which the municipalities we questioned are interested especially due to the influence of 'experts', the stakeholders who guide the municipalities in how they take landscape into account for the purposes of land-use management.

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### 4.2 The influence of the 'experts' on landscape

In the projects studied, we observed that decentralised State services - particularly the Environment, Planning and Housing Agency (DEAL) - and design offices, play a very significant role in supporting and guiding local authority projects. The DEAL provides local authorities with information about the different calls for projects and encourages some of them to respond to the calls for landscape projects:

428 'We are the relay of the State on everything that concerns the landscape call for 429 projects and landscape policy at Ministry level [...] if they [the municipalities or inter-

430 municipalities] want to position themselves, we offer them support in correcting or structuring431 the projects' (DEAL, mainland France, 31 years of age).

Some municipalities showed a clear interest in a particular landscape tool, namely the Landscape Plan. The municipality of Mamoudzou has had a Landscape Plan since 2016, the inter-municipality of Petite-Terre was interested in having one, and Tsingoni responded to the 2018 call for projects. They all see this landscape tool as providing guidelines which help projects emerge and as a way to lead and finance structuring projects for the territory:

437 'I think that most of these municipalities manage to project themselves, they have 438 understood that the landscape is a resource. It is a comfort resource for the inhabitants and a 439 resource of attractiveness for the island more generally. And it also makes it possible to 440 organize and harmonize wishes or needs for environmental upgrading that otherwise they 441 would have a little trouble organizing it into a project' (French State landscaper, mainland 442 France, 50 years of age).

However, the collaboration between local authorities and the DEAL or the design offices, which represent mostly mainland France's views of landscape, can bring out strong differences in how the landscape is understood and used. Analysis of the four interviews with the landscape advisers from mainland France shows that all of them view the landscape in a holistic way, either as a tool to make a coherent project linking several sectors, as a means to give a place a particular atmosphere, or as what gives a place its specific nature and features:

449 'For me, the landscape that I take into account in my project is very broad, that is to 450 say it goes from the quality of the floor covering, through the aesthetic of facades, the 451 vegetation, remarkable trees and the quality of shade. It's really a general atmosphere' 452 (Design office, mainland France, 32 years of age).

The project to develop the waterfront area in the municipality of Bandrélé is especially 453 454 relevant when studying the tension between the perception of landscape among landscape advisers and local authorities. The local authorities interviewed associated the landscape 455 dimension of the project with the recreational dimension it brought. They highlighted the 456 457 creation of pleasant places such as the festival square or the playground. Furthermore, the waterfront was not chosen as the prime space to implement their projects for the beauty of the 458 459 coastal landscape but because there was not enough space elsewhere and people naturally gathered there. On the contrary, when we questioned the design officers in charge of this 460 project about the landscape dimension of the project, they highlighted the attractive 461 462 dimension of the landscape elements on the site such as the river, the sea, and the mangrove. 463 This clearly shows that stakeholders do not necessarily share the same view of how to mobilise the landscape. Some prefer the attendance levels of the place and the leisure adapted 464 465 to local use while others are more interested in the aesthetic and attractive value of natural elements to improve people's quality of life. Besides, in this project, the design office makes 466 proposals and influences the municipality in the way landscape is considered: 467

468 'We have a project to develop the waterfront in Bandrélé which is a little different 469 because the design office that accompanies it has put the landscape directly in its 470 specifications but this is not necessarily going to be in the call for tenders from the 471 municipalities' (DEAL, mainland France, 31 years of age).

A gap between inhabitants' priorities and design offices' projects was also brought to the fore
in our research which stresses differences in perception regarding the quality of life between
local people and officers from mainland France:

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476 'I realize that I am being asked for a lot of parking space which is such an important477 requirement and so much in demand that it may be more of a priority to create parking space

478 [for the inhabitants] than a nice space with large beautiful trees or, for example, a park with479 space for children to play' (Design office, mainland France, 32 years of age).

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481 482 4.3 The inhabitants' lack of interest towards landscape issues according to the local authorities and the 'experts'

Our study reveals a poor understanding of people's perception of the landscape. In 14 interviews, half of the participants did not know what 'landscape' could mean for inhabitants and the other half considered it to be a difficult notion for people to understand. In the latter half of respondents, few municipalities consider that people's idea of landscape is certainly associated with views especially of natural landscapes and with cleanliness as far as the urban landscape is concerned:

489 'It is limited to what they see. For them, a landscape is the horizon, it is what it is 490 limited with the horizon. When you speak to people and ask them about what landscape is, 491 they will tell you that is what we see there. It is mountains, sea, it is the horizon' (Municipal 492 officer, Mahoran, 40 years old).

493 'I think the quality of the landscape for them is having a building, a parking lot, a
494 clean public space and then actually some landscaped spaces but I think what counts is
495 cleanliness' (Elected member, Mahoran, 49 years old).

Few 'experts' from mainland France seem fully aware that landscape is an abstract word for people which is linked to their religion and culture. They also highlight the fact that the inhabitants may be more concerned about ordinary rather than remarkable landscapes: 'The inhabitants are perhaps more interested in urban landscapes. They say that the trash cans around them are ugly, that the street is dangerous and not practical' (Design office, mainland France, 32 years old).

Broadly speaking, municipalities and experts agree on the fact that inhabitants are not 502 503 aware of landscape and environmental issues yet. In their view, people associate nature with dirtiness and most importantly want modernisation and development of the island at the 504 expanse of nature: 'If we had to destroy the whole mangrove and all the trees, as long as this 505 goes in the sense of development as people define it then we can do it' (Elected member, 506 Mahoran, 49 years old). Therefore, there is a gap between inhabitants' priorities and design 507 508 offices' projects which show differences in the respective perceptions of the quality of life of local people and officers from mainland France: 509

<sup>510</sup> 'Sometimes we noticed that there were observations [from inhabitants] that were <sup>511</sup> somewhat contrary to the direction of the design office. One person especially asked a <sup>512</sup> question and other people insisted on putting public lighting everywhere along the waterfront. <sup>513</sup> The design office said that it is not necessarily advantageous in terms of the environment as <sup>514</sup> such because there are birds that need to rest at night so they [the inhabitants] have to change <sup>515</sup> their behaviour' (Elected member Mahoran, 51 years of age).

516 One exception which needs to be mentioned, however, is the strategy used by the municipality of Mamoudzou to collaborate with the inhabitants through the Landscape Plan. 517 The municipality also realised that the Landscape Plan would not interest the inhabitants if it 518 519 was only taken as a tool to identify the different landscapes and related issues. Therefore, their strategy was to base their Landscape Plan on people's needs for public spaces to 520 implement actions in line with residents' concerns and bring an operational dimension to the 521 Landscape Plan. The implementation of this tool was a means for the municipality to get to 522 know and understand inhabitants' needs and expectations in terms of development: 523

524 'Initially our aim was just to have a Plan that identifies all the landscapes and the525 issues related to them but during the consultations, we quickly realized that the population did

not subscribe to this kind of study and wanted concrete actions [...] we said to ourselves [...]
we are going to use the public space to launch the Landscape Plan and its actions. This means
it was no longer sufficient for a fair policy document to say these are the landscapes, this is
what must be done to preserve or enhance them and instead it had to include actions that
emanate from the people' (Municipal officer, Mahoran, 40 years old).

Our study clearly shows different ways of understanding the term 'landscape' among the local 531 532 authorities and landscape advisers and of using the landscape in development projects to solve difficulties linked to territorial management. Municipalities are starting to see the positive 533 side of landscape tools slowly and gradually, encouraged by the landscape advisers from 534 mainland France. They see landscape as a way to obtain financial support to implement 535 development projects to improve quality of life parallel to the development and modernisation 536 of the island. However, the results also show the difficulty they have in collaborating with 537 inhabitants on this question. 538

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#### 541 5. Discussion

542 The landscape is defined in a broad territorial sense in the European Landscape Convention (Jones et al., 2007); however the scenic and visual dimension that had marked the historic 543 544 evolution of the term in Europe is still important in people's minds and even in the explanatory report of the convention (Council of Europe, 2000b). This ambiguity could 545 explain the preference of some stakeholders at a local level to speak about 'environment' 546 rather than 'landscape' (Gauché, 2015a). In Mayotte, the official language is French. 547 Therefore, while the term 'paysage' does not exist in the vernacular languages, the public 548 authorities speak French, and most of those working for the authorities who we interviewed 549

had done some of their studies in mainland France. Thus, some of them are influenced by the 550 pictorial and aesthetic connotation of the term 'paysage', and in this respect they consider that 551 the landscape is more a matter of concern for developed countries. Most of the municipalities 552 have less interest in the landscape compared with the decentralised State services and the 553 design offices from mainland France. The latter encourage and push the local authorities to 554 take the landscape into account in their development projects. As noted in some studies (Jones 555 556 et al., 2007; Olwig, 2007), the top-down approach has dominated, which is also the case in Mayotte Island where experts from mainland France do not have the same culture as the 557 Mahoran. 558

However, a few municipalities see an interest for the territory given the degradation of 559 landscapes (especially natural landscapes) due to the development of the island. With the 560 departmentalisation of Mayotte Island in 2011 and the influence of the national landscape 561 policy, some political actions have slowly and gradually emerged in favour of the protection, 562 management, and planning of landscapes. Under the influence of landscape advisers from 563 564 mainland France, some local authorities show an interest towards landscape tools such as the 565 Landscape Plan or implement development projects with a consideration for landscapes. However, there is still a regrettably low level of involvement among and dialogue with 566 inhabitants in most projects developed mainly by the design offices, decentralised State 567 services, and the local authorities. Even if our results show differences of opinions and 568 representations of the landscape between the landscape advisers and the local authorities, they 569 all use the term 'paysage', whereas the inhabitants do not necessarily speak French and thus 570 do not use this term. A Western vision of the landscape predominates in the development 571 572 projects, which is influenced by the language used (French), the studies of the authorities in mainland France, and the role of the landscape advisers. 573

As the perception of the landscape contributes to actions on the landscape (Gauché, 2015b), 574 575 this Western perception of the landscape influences the type of actions implemented thereon. In their development projects, the local authorities and the landscape advisers do not 576 sufficiently take the Mahorans' perception of landscape into consideration. In a study of 577 landscape preferences, Longépée et al. (2019) have shown the distinctive characteristic of 578 Mahorans' relationship to landscapes. They show the wide variety of perceptions of landscape 579 580 among the local people and emphasise the differences between the landscape preferences of people from mainland France and of Mahorans. People from mainland France have a more 581 distant and visual relationship with the landscape, whereas the Mahoran people have a multi-582 583 sensorial and immersive relationship with landscapes and are influenced by their culture at the 584 crossroads between the Bantu and the European cultures. Mayotte Island is deeply imbued with the Muslim religion and traditional customs of Bantu culture, which means that some 585 586 places are characterised by spiritual and religious symbols. Some people particularly still believe in benevolent and malevolent spirits that are said to inhabit sacred sites throughout the 587 territory, especially in natural landscapes such as the mineral sites and waterfalls of the island 588 (Boinaïdi, 2013). Therefore, it seems necessary to collaborate more with the inhabitants to 589 590 consider the local people's differing perceptions and experience of the landscape. The 591 perception of people is a core issue in the definition of the landscape given by the ELC (Council of Europe, 2000a, article 1), and therefore any lack of integration of people's 592 perceptions into development projects seems to be a significant negative point in actions on 593 594 the landscape in Mayotte. The landscape experience and perception of local people do not influence actions taken on the landscape. 595

We therefore consider that, while not all societies have developed a landscape theory (Berque,
2013), everyone experiences and perceives the landscape (Dérioz, 2012; Gauché, 2015b).
These experiences differ according to cultures and times and determine the political actions

on the landscape (Gauché, 2015b), which makes it essential to consider the local people's perception of landscape. However, to date, the Western perception of the landscape has guided development projects. The wider framework of the ELC is relevant as it recognises that the landscape is accessible to all, even in developing territories, because it is a matter of how people live collectively and shape their land together as the pre-modern definition of the landscape suggested (Fairclough, 2016; Olwig, 2019). However, the ELC is not always helpful in the cultural specificities of each territory being taken into consideration.

606 Nevertheless, our study shows the potential of the Landscape Plan to implement a holistic and a bottom-up vision of landscape that supports the development of a territory. The approach 607 608 taken by the municipality of Mamoudzou shows an adoption of the Landscape Plan by both local authorities and inhabitants. Contrary to development projects in which the views of local 609 inhabitants are not taken into consideration or only interpreted from the standpoint of experts 610 (Wu et al., 2017), the municipal officer we met clearly explained the importance of 611 integrating the inhabitants' views. He suggested that the Landscape Plan did not interest 612 613 inhabitants, because it is solely seen as a tool to identify the different landscapes and related 614 issues. Thus, they based their Landscape Plan on people's needs for public spaces to implement actions consistent with residents' concerns and bring an operational dimension to 615 616 the Landscape Plan. The implementation of this tool was a means for the authority in charge to get to know and understand inhabitants' needs and expectations in terms of development. 617 Furthermore, it was a way of raising awareness of the notion of landscape by showing that it 618 could be an asset for the development of the territory. This holistic vision of the landscape 619 620 clearly contributes to the development of a territory and to enhancing the quality of life. 621 Poverty and lagging development have produced a specific way of life that needs improving, so the Landscape Plan appeared to be a good way of structuring and managing all these 622 problems. Therefore, in contrast with many studies in European countries showing that 623

landscape is often considered as restricted to a sectoral approach (Jones & Stenseke, 2011), 624 625 we can suggest that few stakeholders in Mayotte have seen the opportunity of implementing a holistic approach in which landscape can be a tool to develop other development projects 626 which are all linked to the improvement of the quality of life. Moreover, studies in La 627 628 Reunion, a French island and a more Westernised outermost region of the European Union, have shown the potential of the landscape to bring together different stakeholders who have 629 630 opposing approaches to the landscape (Adolphe, 2017). Adolphe insists that the landscape can be a 'mediation tool' (consistent with the terminology of Donadieu, 2007), for the 631 establishment of the green and blue corridor, for instance, which the island's inhabitants know 632 633 less about.

However, the interviews conducted with municipalities and representatives of the State at the 634 behest of the DEAL in Mayotte (DEAL Mayotte, 2013) suggested that consideration for the 635 landscape in development projects is temporary and that the baseline landscape documents 636 (the Atlas of Landscape) are not used by local authorities. Similarly, our study shows that the 637 638 landscape documents are not actually known and used by most local authorities. Moreover, 639 some projects that we studied also highlight the fact that the consideration for landscape is temporary. We suggest that better explanations and improved support in the adoption of these 640 641 tools will be a way of bringing stakeholders with vastly different priorities together under the guiding principle of landscape as a territorial project. It is important to bear in mind that the 642 landscape can be a guideline to unite stakeholders in different and various contexts. Using it 643 to manage territorial issues can be a way of attracting the interest of planners in countries 644 645 facing development issues and of promoting social collaboration.

#### 647 6. Conclusion

This paper aims to contribute to knowledge about French overseas territories and how 648 landscape is taken into consideration in public policies and development projects through the 649 650 wider scope of the ELC. It shows that (1) a minority of the local authorities in Mayotte were concerned about landscapes and their recent mutations because this is regarded as a minor 651 problem compared with the priority needs of the territory. However, a recent concern is 652 emerging among few stakeholders who are conscious of environmental degradation and 653 attached to the 'green island' identity. (2) There are three major ways of defining the 654 landscape among the local public authorities: aesthetical, environmental, and developmental. 655 656 (3) The municipalities who take landscapes into account in their projects see the landscape as 657 a means to protect natural spaces, make spaces attractive, and above all to enhance the quality of life, which has been highly degraded in the context of Mayotte. They are influenced by 658 landscape advisers from mainland France and their landscape tools, but these poorly integrate 659 inhabitants' into their actions. 660

661 The ELC provides a broader vision of landscape in which the landscape is considered to be an 662 important factor in the quality of life everywhere (Council of Europe, 2000a). It enables us to 663 discuss and expand narrow definitions of landscape based on its scenic dimension, which reflects only one aspect of the landscape and cannot be relevant in certain cultural contexts. 664 665 Our case study clearly shows how difficult it is to understand what landscape is and to what extent it is relevant in land-use planning, considering the context of the island's poverty and 666 667 its priority needs. Therefore, the influence of experts from mainland France plays a significant role in the adoption of some landscape tools and in the concept being integrated into 668 development projects. Despite this top-down approach, we want to insist on the relevance of 669 the landscape understood as a holistic tool in the ELC to manage different development issues 670 and coordinate a territorial project. 671

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