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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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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 can improve the quality of life in a poor region especially through the adoption 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 historical layers of meaning (Berque et al., 1994; Cosgrove, 2006; Fairclough, 2016; Olwig, 2019; Roger, 1997). One of the narrow definitions involves defining landscape as only being linked to a particular cultural context. For instance, in France, Berque suggested (Berque et al., 1994) that the concept of landscape, ‘*paysage*’ in French, could be defined through a socially constructed vision of the environment. Thus, he considered that some societies had cultural backgrounds that give them a way of seeing and representing their surroundings as 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 oral literature praising the beauty of the site which includes (1b) toponymy, (2) ornamented gardens, (3) architecture designed to provide beautiful views, (4) paintings representing the environment, (5) one or more words used to express the idea of ‘landscape’, and (6) explicit reflexions on the ‘landscape’. Regarding these criteria, Berque (2013) and also some 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 landscape exists at a certain time in history and in a certain culture. Thus, according to Berque (2013) only China since the 4th century and the West have developed a landscape culture, that is to say, they have developed ‘a landscape theory’ (Ibid), and were able to conceptualise the landscape. The idea of a landscape theory supposes the landscape is made a subject of thought through various discourses thereon; actions whose direct or indirect objective is the landscape; and influence on the forms of governance of the territory (Berque, 2013; Gauché et al., 2019).

25 These criteria, however, are mostly based on an aesthetical and contemplative understanding
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,
28 whose character is the result of the action and interaction of natural and/or human factors’
29 (Council of Europe, 2000a, article 1). In this definition, the emphasis is placed on the
30 perception and experience of people. Landscape is considered ‘as an important part of the
31 quality of life for people everywhere in urban areas and in the countryside, in degraded areas
32 as well as in areas of high quality’ (Council of Europe, 2000a, Preamble).

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

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

58

59 *1.1 Evolution of the concept of landscape: from a scenic view to a more holistic*
60 *understanding*

61

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

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

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

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

109

110 *1.2 The ELC: a challenge in spatial planning*

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

121 One major challenge is linked to the holistic vision of landscape promoted in the convention,
122 which requires that landscape must be considered in all sectors (Council of Europe, 2000a,
123 article 2). Landscape is often considered, however, as a field of action that is separate from its

124 territorial context, leading to sectoral approaches rather than a holistic vision of the landscape
125 in land-use planning (Stenseke & Jones, 2011).

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

148

150

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

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

174

175 2. Case study

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

196 In recent decades, the island's increasing urbanisation and the expansion of agricultural land,
197 due to demographic development, has considerably transformed the landscapes, especially in
198 the loss of green areas through deforestation. In this context, the decentralised public services

199 of the State created two landscape tools. The first one is the Atlas of Landscapes, elaborated
200 on the model of the Atlas of Landscapes in mainland France, whose objective is to identify
201 the landscapes of Mayotte and its characteristics and dynamics to make recommendation for
202 its protection and management (DEAL Mayotte, 2007). The Atlas of Landscapes in France is
203 made up of documents designed to implement the principles of the ELC particularly those set
204 out in article 6c¹ (Council of Europe, 2000a).

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

214

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*

¹ '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)



e)

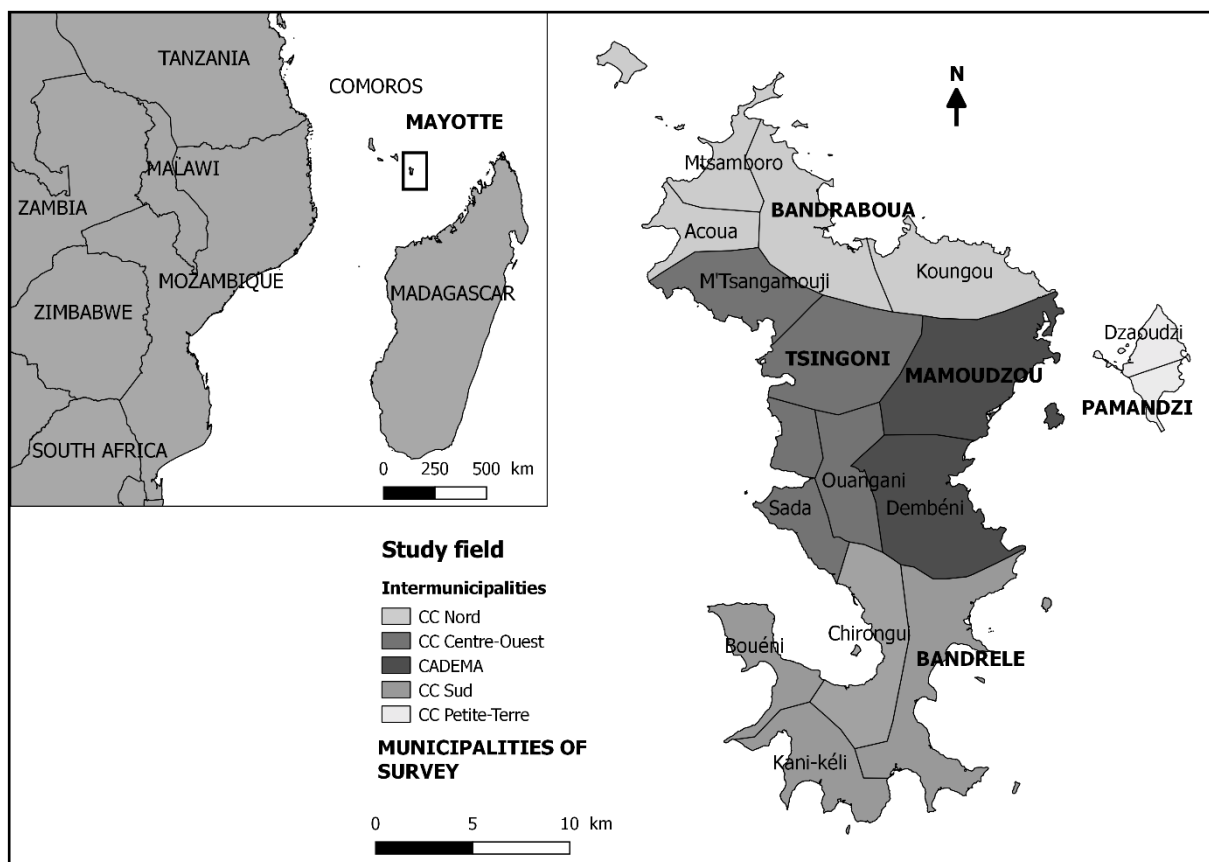
218

219 Study sites

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

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

227



228

Map 1. Presentation of the study area.

229

- 230 - **Mamoudzou:** The capital of Mayotte is an increasingly urbanised municipality where
231 most of the public services are located. It has had its own Landscape Plan² since 2016
232 - a voluntary approach aimed at integrating landscape considerations in all sectoral
233 policies (urban planning, transport, infrastructure, agriculture) - and has developed
234 many projects linked to the Landscape Plan (JNC Agence Sud et al., 2016).
- 235
- 236 - **Pamandzi:** This municipality has carried out a project concerning the development of
237 the town's waterfront. In this case, the position of the inter-municipality of Petite-
238 Terre was particularly interesting as it was in response to a Landscape Plan's call for
239 projects in 2015 but was not selected.
- 240
- 241 - **Tsingoni:** This municipality has undertaken a project aimed at revitalising the town
242 centre, paying particular attention to the quality of life. Furthermore, the inter-
243 municipality has responded to a Landscape Plan's call for projects in 2018 (period of
244 the investigation campaign).
- 245
- 246 - **Bandraboua:** This municipality has developed a project to revitalise the town centre
247 by integrating and promoting a natural area.
- 248
- 249 - **Bandrélé:** The municipality of Bandrélé was of great interest because of its
250 development project for the town's waterfront.
- 251

² 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 (https://www.fncaue.com/appel-a-projets-plan-de-paysage_2019/). Mamoudzou was among the 21 winners of the first Landscape Plan's call for projects.

252 3. Methods

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

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

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

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

281 Three elected members, five municipal officers, and two intercommunal officer, were
282 interviewed. The elected opposition members were not interviewed because the development
283 projects we selected to study did not raise political debates. Differences of opinions have only
284 recently started to emerge in inter-municipalities. We also considered it relevant to interview
285 four stakeholders who guide local authorities in their landscape planning, because they were
286 mentioned in the interviews by the local public authorities³: an officer of the Environment,
287 Planning and Housing Directorate (DEAL); an officer in a design office; a French State
288 architect; and a French State landscaper. The 14 respondents (two women and twelve men)
289 ranged from 26 to 51 years of age. Eight of them were born and grew up in Mayotte. Except
290 for one person, all of them had studied or worked in mainland France. Six people were from
291 mainland France and the duration of their residence in Mayotte varied from approximately
292 two months to six years.

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

³ 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.

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

303

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

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

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.*

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

312 4. Results

313 *4.1 Differences in the representations of landscape among municipalities and inter-*
314 *municipalities*

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

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

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

335 *Landscape as aesthetic scenery*

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

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

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

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

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

361 *Landscape: An environmental issue*

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

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).

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

378 Thus, in most of the development projects we studied, interest in landscape is linked to the
379 return of nature within towns through tree plantation and the creation of green, clean, and
380 attractive public spaces. In Mamoudzou, the project manager explains that the objective of the
381 Landscape Plan is to maintain plant cover in town and make it attractive through the
382 development of green spaces: ‘The idea is to maintain plant cover, this is the overall idea [...]

383 For me landscape is linked to vegetation’ (Municipal officer, Mahoran, 40 years old).
384 Likewise, in Bandraboua and Pamandzi, one of the objectives is to restore the importance of
385 nature through the development of green spaces:

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

389 However, this definition of landscape also creates an antagonistic vision of land-use
390 management which opposes the development of the island to its protection. Therefore,
391 landscape legislation is understood in terms of environmental restrictions by other
392 stakeholders and seen by some municipal and intercommunal officers as a constraint on the
393 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
400 programme and a guiding principle in several development projects. In Mamoudzou, the
401 Landscape Plan is used to facilitate the return of nature to the town and also to make pleasant
402 and recreational public spaces, solve sanitation problems, protect and raise awareness of the
403 importance of natural sites, such as the mangroves of the town, and finally implement a
404 project to develop eco-friendly means of transportation. The Landscape Plan is used to
405 improve the quality of life which had degraded because population growth and urbanisation
406 are stifling the island:

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).

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

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

421

422 4.2 *The influence of the ‘experts’ on landscape*

423 In the projects studied, we observed that decentralised State services - particularly the
424 Environment, Planning and Housing Agency (DEAL) - and design offices, play a very
425 significant role in supporting and guiding local authority projects. The DEAL provides local
426 authorities with information about the different calls for projects and encourages some of
427 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 structuring
431 the projects' (DEAL, mainland France, 31 years of age).

432 Some municipalities showed a clear interest in a particular landscape tool, namely the
433 Landscape Plan. The municipality of Mamoudzou has had a Landscape Plan since 2016, the
434 inter-municipality of Petite-Terre was interested in having one, and Tsingoni responded to the
435 2018 call for projects. They all see this landscape tool as providing guidelines which help
436 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).

443 However, the collaboration between local authorities and the DEAL or the design offices,
444 which represent mostly mainland France's views of landscape, can bring out strong
445 differences in how the landscape is understood and used. Analysis of the four interviews with
446 the landscape advisers from mainland France shows that all of them view the landscape in a
447 holistic way, either as a tool to make a coherent project linking several sectors, as a means to
448 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).

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

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).

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

475

476 ‘I realize that I am being asked for a lot of parking space which is such an important
477 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 with
479 space for children to play' (Design office, mainland France, 32 years of age).

480

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

483 Our study reveals a poor understanding of people's perception of the landscape. In 14
484 interviews, half of the participants did not know what 'landscape' could mean for inhabitants
485 and the other half considered it to be a difficult notion for people to understand. In the latter
486 half of respondents, few municipalities consider that people's idea of landscape is certainly
487 associated with views especially of natural landscapes and with cleanliness as far as the urban
488 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).

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

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

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

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

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

526 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 527 it was no longer sufficient for a fair policy document to say these are the landscapes, this is 528 what must be done to preserve or enhance them and instead it had to include actions that 529 emanate from the people' (Municipal officer, Mahoran, 40 years old). 530

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

539

540

541 5. Discussion

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

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

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

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

596 We therefore consider that, while not all societies have developed a landscape theory (Berque,
597 2013), everyone experiences and perceives the landscape (Dérioz, 2012; Gauché, 2015b).
598 These experiences differ according to cultures and times and determine the political actions

599 on the landscape (Gauché, 2015b), which makes it essential to consider the local people's
600 perception of landscape. However, to date, the Western perception of the landscape has
601 guided development projects. The wider framework of the ELC is relevant as it recognises
602 that the landscape is accessible to all, even in developing territories, because it is a matter of
603 how people live collectively and shape their land together as the pre-modern definition of the
604 landscape suggested (Fairclough, 2016; Olwig, 2019). However, the ELC is not always
605 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
607 a bottom-up vision of landscape that supports the development of a territory. The approach
608 taken by the municipality of Mamoudzou shows an adoption of the Landscape Plan by both
609 local authorities and inhabitants. Contrary to development projects in which the views of local
610 inhabitants are not taken into consideration or only interpreted from the standpoint of experts
611 (Wu et al., 2017), the municipal officer we met clearly explained the importance of
612 integrating the inhabitants' views. He suggested that the Landscape Plan did not interest
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
615 implement actions consistent with residents' concerns and bring an operational dimension to
616 the Landscape Plan. The implementation of this tool was a means for the authority in charge
617 to get to know and understand inhabitants' needs and expectations in terms of development.
618 Furthermore, it was a way of raising awareness of the notion of landscape by showing that it
619 could be an asset for the development of the territory. This holistic vision of the landscape
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,
622 so the Landscape Plan appeared to be a good way of structuring and managing all these
623 problems. Therefore, in contrast with many studies in European countries showing that

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

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

646

647 6. Conclusion

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

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
664 reflects only one aspect of the landscape and cannot be relevant in certain cultural contexts.
665 Our case study clearly shows how difficult it is to understand what landscape is and to what
666 extent it is relevant in land-use planning, considering the context of the island's poverty and
667 its priority needs. Therefore, the influence of experts from mainland France plays a significant
668 role in the adoption of some landscape tools and in the concept being integrated into
669 development projects. Despite this top-down approach, we want to insist on the relevance of
670 the landscape understood as a holistic tool in the ELC to manage different development issues
671 and coordinate a territorial project.

672

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674

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