The structure of the white water sports market in the French Alps
The case of the Ubaye Valley

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NOTE DE L’ÉDITEUR

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1. White water sports (canoeing, rafting, tubing, and swimming) are just some of the activities that have developed in the Alps over the last thirty years (AFIT, 2004). They involve the sport of descending a water course in areas where the torrent of water flows at high speed over a congested river bed. However, these activities remain many, varied and ill defined, and the definition of white water sports (Mounet, 2000) often includes canyoning, which requires a different approach to the environment, using rope techniques. White water sports include the use of equipment, giving people the chance to explore gorges that are inaccessible on foot. This applies to the Ubaye River, which flows through a narrow valley between the Queyras in the north and the Mercantour in the south. The water course that gave its name to the area is presented as “wild” by guides and visitors who use it.

2. This article aims not so much to give a history of white water sports in the Ubaye Valley as to demonstrate how the activities contribute to tourism there through the development of a market. We analyse this development, reconstructing the processes behind the emergence of sports activities in an area of the Alps that has barely been studied. To fill this gap, we consider here how the market was created through the development of commercial white water sports activities. Which conditions led to the emergence of these sports in the Ubaye Valley? Which processes are at work in the creation of the offering in the Valley?
To answer these questions, we analyse data from the archives of the Canoe Club, the first nautical society created in Paris in 1904, and articles taken from the specialist press (Canoë-kayak Magazine (CKM), the only publication still published France). We will assess this body of information in order to trace back the interaction between the various players in the white water sports market. This will enable us to establish the relationships between the development of rafting companies in the Ubaye Valley and the emergence of an offering focused on sports tourism based on the river torrent. We will cross-reference these sources with contributions from stakeholders who have worked to structure the market (company managers and guides). We have used an interview grid to survey company founders on how they developed. In order to analyse the context in which development occurred, we first need to give a description of the Ubaye Valley, the surrounding area and the specific aspects of the river torrent where the sports are carried out. The Ubaye is a mountain valley in the North East region of the Alpes de Haute-Provence covering fourteen areas between the periphery of Gap and the Italian border. It has a population of only 8,000 living along the valley floor, on high escarpments and Alpine meadows far from the tourist hotspots of Provence. There are few facilities, apart from the ski resorts, meaning that the ecosystem of this area over one hundred km from Nice has been preserved. The water course is an Alpine river torrent congested at the lower end, with a considerable drop in altitude and a current that is good for navigation. The main feature of the river torrent is that it is not blocked by artificial dams. The Ubaye exhibits a nival regime, meaning that flow is strong in spring and sustained in summer. Water levels remain relatively constant, meaning that navigation is possible over both seasons. With 52 kilometres of rapids, the route is exceptional for France, given that barrages have been built elsewhere in recent decades, resulting in artificial water courses.

**Figure 1. The route of the Ubaye**

[Map of the Ubaye river route]
We will use the case of rafting to illustrate our submission, as it provides an insight into the interaction between market players and regional dynamics. This issue makes reference to work on the impact of this activity on the area (Mounet, 1994), mainly focusing on the involvement of players in the tourist sector at local level. As an addition to the approach, we will also employ regional images and resources (Gumuchian and Pecqueur, 2007) from research on the development of sport in the Valley (Marsac, 2006).

The study will be structured around three periods running from between the wars to the decade beginning 2010. We will describe how the tourist offering started out, followed by the emergence of sports facilities, finally looking at the development of the market and its products.

The “Pioneer” Era (1935-1970)

Since the first half of the 20th century, canoeing and kayaking have proved to be two distinct activities enabling tourists to explore river torrents. The inter-war period is seen to be a period favouring the rise of tourism. Geographer François Arnaud was the first to promote tourism in the Ubaye Valley, but canoe enthusiasts, whom we have called the “Pioneers”, have also spent time in the valley since 1935. River trips made by Paris members of the Canoë Club linked to the Touring Club de France (TCF) provide a good model for the activity. From 1932, a network set up by the TCF set out to equip sites in the Alps. Locations for entering and exiting the water are identified in specialist tourist guides. But how have the activities of enthusiasts influenced the structuring of the sports offering in the Ubaye Valley?

Back in 1939, the “Pioneers” started staying in Barcelonnette, then the Sous-Préfecture des Basses-Alpes. There is a link between their activities and the first tourist products to emerge. Weeks organised by campers and accommodation networks (Bertho-Lavenir, 1999) were the first examples of sports holidays run by the TCF in the Ubaye Valley. This kind of accommodation met the expectations of canoeists from Paris, who based their activities on the ideal of free exploration of nature.

Ever since they began exploring the river torrent, the valley has been seen as a Parisian “fiefdom”. But for around fifty years, it has not been possible to go down the whole of the Ubaye, as the Lauzet Gorge is impassable due to the extreme force of the water. This is because flow through the Ubaye is subject to high water levels. The middle and lower sections of the river torrent are very difficult because the current can be very dangerous. After a storm, the river bed changes and the black water picks up shale.

At the end of the Second World War, the Ubaye was included in a survey of navigable rivers. The TCF set up a classification system for top tourist destinations. This river torrent actually features as a major destination in guides because it is promoted as a “must-do trip” for anyone armed with a paddle. In 1952, authors described it as “wild – its banks are edged by forest with fantastic flora”. This image made it famous among Paris clubs and the Kayak Club de France. In April 1960, the “dark waters” were amazing. The top sports terms are used to describe the challenges of this water course: “in the most demanding section, navigation becomes quite strenuous”. For the “Pioneers” making their first descent of the Lauzet Gorge, the river torrent is a well-known sporting challenge, as navigation there is recognised as a “serious sport”. This means that the obstacles generating the movements in the water are part of the rich environment. At
that time, the way the canoeists unravelled the challenges became the essence of a tourist pursuit: descending the river and camping wild.

This was the period when activities were developed. Those involved linked it to sporting tradition and facilities, but without developing an actual market. A connection arose between the reputation of the Ubaye Valley and the emergence of the tourist offering. The various players therefore needed to adopt a specific approach to address business activity.

**Structuring the tourist offering: 1970-1990**

Tourism has become the number one economic sector in the valley, selling activities related to mountain tourism, and including sports from the 1970s. Aside from the activity of the “Pioneers”, how was the transition made from sports activity to a structured commercial offering?

**Setting up a series of associations**

In 1961, development was partially hampered when the Serre-Ponçon Barrage was built, flooding a section of the Lauzet Gorge. This meant that hamlets such as Roche-Rousse had to be abandoned. The site went on to be used as a primary support base in 1973 by members of the Découvertes Association, which was a pioneer in supplying sports products. Those in charge at the club developed a ski/canoe course concept – the first instance of turning white water pursuits into a commercial proposition. The founding of the Découvertes Association in 1976 (Roggero, 1979) marks an important point, as it was the first to offer courses in the Ubaye Valley. But it did not restrict its activity to that – it made it easier to explore the river torrent starting from the base station without the need to camp.

Nevertheless, the river torrent truly became a top white water sports destination from the point when canoeing was included in the Barcelonnette guides’ tourist offering. Services and businesses are located there. Over a third of the people of the Valley live there and it has become the epicentre of the sports sector in the Valley. The professional offering goes back to the 1970s, with guides opening up the river torrent as a destination via nine potential different sections.

Figure 2. Nine launch points in the Ubaye

The river torrent became accessible from locations such as Four à Chaux. Camp sites were set up there for canoeists. The “Pioneers” held an international Alpine river torrent fortnight between 1971 and 1978. The event gave groups the chance to explore the river torrent, which became a destination for groups of overseas enthusiasts with the same passion for exploring nature. Canoeists from northern Europe (Germans, Belgians, etc.) were in fact attracted by the image of a “wild” valley and landscapes protected from industrialisation and mass tourism. This attracted several hundred tourists, who would regularly come and stay in the hotels in Barcelonnette.
But these fortnight-long events came to an end at the beginning of the 1980s. Over the decades, the craze for wild camping as you descended the river unguided petered out. Guided tours replaced this, aimed at a wider public and initially organised by associations and then commercial companies. We put forward the hypothesis that the development of white water sports in the Ubaye Valley resulted from a process of change with regard to pursuits involving two major points during the structuring of the market: the first when canoeing took off as a pursuit in the Alps due to action by canoe club members and the second when recent forms of the sport came into vogue: rafting and white water swimming.

The diagram below shows how canoeing, kayaking, tubing, white water swimming and rafting appeared and developed between activity by associations and the creation of a commercial offering.

<table>
<thead>
<tr>
<th>Canoe Club and TCF</th>
<th>Découvertes Association</th>
<th>companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930s to 1960s</td>
<td>1970s</td>
<td>1980s</td>
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<td>rafting tubing and white water swimming</td>
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The emergence of the commercial offering

Associations encouraged stakeholders to take a professional approach to their offerings. This became an imperative for the Découvertes Association, which overhauled its image in response to changes in customer demand. The club started offering white water tubing for children from 1982. A team of canoe guides and volunteers ensure site safety. Sports events are organised in spring to kick off the season, turning the valley into a venue for challenges and raids. Competitions take the form of friendly meets (a parallel slalom “puts on a great show”). The Découvertes Association had been training thousands of people for twenty years now, but there was a need to segment the offering to make it more diverse. In 1984, seasonal restrictions led to Parisian guides founding the first ever company, AN Rafting. By the end of the 1980s, this company was also running white water swimming trips.

This initial commercial offering serves as an indicator of the beginning of the process, given that there has been no real market study. Interviews with guides and the Tourist Office in the valley reveal that the first company to arrive ran for 6 years without any competition. French market leader AN Rafting came up with the first rafting offering in France in 1984. The origins of the founders of this business show that the first guides mostly came from distant regions (Paris...), settling in the valley to develop their services. This is a significant factor in that, right from the start, local people have had little control of the market.

Only kayaking products were commercialised up to the beginning of the 1980s, and the market only opened up when rafting and white water swimming appeared on the scene.

Expansion of the commercial offering

We now need to analyse the rise of certain companies. The offering developed by diversifying into the first commercialised products: “descents of the Ubaye with four days of wild camping”.

The natural water course is ideal for group descents, but the force of
the river torrent means employing professional guides to ensure customer safety. AN Rafting therefore called upon the resources of various associations. But taking groups of beginners and amateurs requires increased supervision. Supervision by qualified assistants ensures the safety of white water rafters and swimmers, as the Ubaye is famous for its violent high waters.

Against this background, the rafting market has gradually segmented in favour of competition between organisations positioning themselves through diversification. Alongside this, kayaking has been revitalised as a pursuit by the advent of a boat suitable for beginners. The appearance of the canoe-raft in 1990 (an inflatable craft also called a hot dog) marked a turning point for the commercial offering. Steered by two people, this craft is an innovation that gives everyone the chance to do a river torrent descent. Commercial providers now provide services along a number of lines: guided descents and commercial rafting or canoe-rafting services. The “commercial” aspect resides in the ability of hoteliers to attract customers. A white water sports school was started up in a local context ripe for accommodation suppliers working together (self-catering and hotels). The first manager of AN Rafting speaks of how it started: “We worked with 4-5 hotels that would normally close in May/June. All of a sudden, we were sending them customers ...and they were full up! We kept an office in Paris for selling our tours...”. AN Rafting offered an immersion course of one week of wild camping in the wild sections of the Ubaye, acquiring some customers from bookings made at the Maison du Canoë-Kayak. This isolated practice petered out at the beginning of the 1990s when the Barcelonnette Tourist Office, a proper booking centre, boosted the market through mass marketing half-day rafting and white water swimming sessions.

To assess the segmentation of the white water sports market, we will now analyse business strategy in this environment and emerging competitive relationships.

**Strategic development: from sport to tourism**

We will now examine the processes at work in the commercialisation of services. Here, “touristification” means the process of mobilising local resources. White water sports companies developed due to the activity of professionals, who helped to turn sports tourism into a promising economic sector in the Ubaye Valley (AFIT, 2004).

**The role of guides in the “touristification” process**

Guides are professionals in these disciplines trained by the Fédération Française de Canoë-Kayak. It is therefore appropriate at this point to review their contribution to the expansion of the market. To measure this, we have used indicators linked to their role in the commercialisation of company products. They have been the main agent for change. The employability of the guides at AN Rafting, a pioneering company, proves this: “We called on fifteen or so guides on average per season, and I even went up to twenty. The ones we employed by the month all went on to set up their own companies”[23]. This person confirms that from 1990 onwards, “other white water sports companies were set up by enthusiasts from outside the Valley”.

When the market started to expand, the economic activity generated by guides and service providers meant that businesses had to opt for the status of sole trader or
company. Since that period, companies can employ up to eighteen guides in a season. The fact that guides belong to competing companies is a factor that favours the opening up of the market and the direct sale of services. Of all the services offered by guides, half-day rafting sessions have seen the biggest level of success.

25 But the seasonal nature of activities continues, as white water sports professionals live out of the area in winter. Beyond the limitations imposed by the climate, they work in this way because they want to perfect their professional skills. There is also the opportunity for listed white water sports companies to create an economic activity: “White water pursuits constitute a major proportion of summer business (ten rafting bases and two kayaking schools) offering sports and fun sports sessions.” (AFIT, 2004). With the advent of competition, lots of small white water sports companies sprang up on the initiative of the guides: “You don’t any see big companies these days. Some guides even work alone through on-line bookings.” The historic link between the Tourist Office and the guides might appear to be a factor in the development of the market, but product sales outlets are now being overtaken by the Internet.

26 Rafting is becoming the number one draw for the family sector in commercial strategies and is replacing kayaking, which is linked more to associations than guides. As they lead the descent of the Ubaye, the new guides combine the rafting trip with exploring the river, which was once the sole preserve of canoeists. These State-recognised professionals know the Ubaye inside out. For the most part, they are male. Their composite culture inherited from kayak competitions derives from how associations usually operate.

27 But the seasonal factor restricts market development as it limits the activity of the guides to between April and September. But there is still competition in that companies are at their busiest in the summer. The offering becomes standardised. Companies offer descents on the same routes and the guides set off from the same points. The increased capacity of sports service providers leads to problems of people with different companies doing their sessions at the same time. Any commercialisation of tourist products is small scale, as five out of the fourteen communes in the valley say that white water sports is the “number one product” in their tourist offering. So “touristification” here means moving away from sports pursuits connected to club activity and towards an offering defined by the positioning of companies across commercial sectors (Massiera, Schuft, 2010).

**Competition that benefits the area**

28 With the arrival of five specialist companies, the market became more competitive in the 1990s. Added to these were a further ten or so guides providing various services. At the same time, associations were being disbanded. Commercial providers began to work more with operators and holiday centres. Managers drew support from the development of resources provided by the Barcelonnette Tourist Office (promotional campaigns). Also, ad hoc cooperation between competitors made it possible to develop launch points and warn of dangers of the river torrent. The resources identified during the launch phase of white water sports in the Ubaye Valley have been revitalised by the small businesses that have come to compete with AN Rafting. By the end of the 1990s, the concept of sharing skills took concrete form in a public-private partnership. Work carried out by associations and financed by the public partners was designed to achieve an economy of scale and share allocated resources to organise events to kick off the season. This approach led to an increase in the number of nights spent in hotels in the Valley: “People were more...
responsive. Hotels filled up... Customers were once mainly from outside, but they started to come from the valley itself.

The arrival of rafting led to the commercialisation of niche products (Tribou and Ohl, 2004). Development strategies were applied to sell this pursuit, such as organising events run by guides (raids, Ubayak). This helped to promote the area. From the year 2000, the trend in the valley was one of hedonism, with targeted demand. To quote Pigeassou and Chaze (2005): “The dynamic of white water pursuits during the period 1985-1995 was one of an attraction to outdoor sports and fun. On the one hand, the issue of the environment and an increase in ecological concerns awakened a need for contact with nature. On the other hand, the desire for adventure and thirst for personal achievement generated greater demand for access to the river environment”. Tourist demand led to the need to update the white water sports market. We suggest that the use by guides of the natural resources of the river torrent led to a more attractive offering because the approach was now a professional one.

The river torrent, an unused resource in the past, became a useful source of images for promoting the region. The work of the guides involves providing information. The Maison de la Vallée welcomes the tourists and companies are acquiring resources to complement the Internet (booking centre). One study (AFIT, 2004) showed that the market is evolving for a number of reasons: an increase in local economic activity, a solution for addressing seasonality and a way to bring new impetus to the Valley area. At the current time, there are only tourist trips down the river torrent, which has focused the market on canoe-rafting, leading to saturation at Le Martinet. In spite of this limitation, service providers now feature this preserved environment on their web sites, as evidenced by the market positioning of the thirteen companies.

Regional resources: a factor in market expansion?

The environmental aspect promoted by the guides pays homage to the characteristically rich landscape of the Ubaye Valley. This approach of seeking out regional resources (Gumuchian and Pecqueur, 2007) based on the concept of a “wild” environment is linked to representations of nature. The concern is to provide a sustained offering against a background of strong competition amongst destinations in the Alps (Queyras...). In spite of this, the effects of the advent of new activities at a structured tourist area have been beneficial for the local residents.

Today, canoe-rafting is a way for the customers of rafting companies to access white water sports suited to exploring sites considered to be “wild”. This pursuit has attracted a new type of customer looking for an experience that kayaking cannot provide, as it is considered to be more of a technical pursuit. Local communities have been stakeholders in the expansion of the market, as the Conseil Général des Alpes de Haute-Provence has launched a departmental tourism scheme (AFIT, 2004). The “contract for the development of sensitive tourism networks” culminates in a sustainable regional management plan, covering environmental quality and river access issues (private river banks make it hard to implement a non territorial regime for the water course). This context complicates procedures, permits and the legal framework for operating the sites, as access to the highest sections of the water course is still prohibited. The development of white water pursuits is suffering because of this, especially in terms of organisation and access for rafters to launch areas.
This matter is outside the remit of tourism promotion and comes under planning policies implemented to boost the area. The Communauté de Communes de la Vallée de l’Ubaye has set up a tourism service to provide information for enthusiasts and groups. The updating of procedures for cooperation between stakeholders proved to be important in terms of market dynamics. To address any severe drops in visitor numbers, companies operate a combination of white water swimming and rafting products at their sales outlets. Company managers focus on the “zap effect” of versatile customer behaviour.

Elected parties from four communes in the valley are putting new impetus into tourism using the initiative of the guides. In a work published on the subject of water sports, the author states that the Alpes de Haute-Provence region “offers amazing facilities for the pursuit of white water sports” (Olive, 1994). The infrastructures and the image of the river torrent created by enthusiasts help to attract customers who are looking to get away from it all. The area’s natural resources are put to good use, as the valley presents itself as a place for contemplation. A whole series of representations is built around the notions of “tourist destination” and “playground”. Also, Ubaye-Kayak school guide books make reference to Provence to differentiate from the offering developed in the Durance region, which is more urban. In a study of the valley, Philippe Bourdeau also identifies a process of “touristification” around the regional attraction of the river torrent: “Under a Plan pluriannuel de développement touristique launched at the beginning of the 1990s, the repositioning of the mountainous Argentière region will be largely based on promoting the rich but unexploited natural and cultural resources offered by the Durance Valley (gorges, white water) ...” (Bourdeau, 2009). The Ubaye is defined by its specific geography. The Serre-Ponçon lake is a water catchment area with potential for complementary offerings between the Durance Valley. The use of this body of water is a useful addition to the white water sports offering in that the less restricted environment is ideal for sailing and swimming. This phenomenon widely constitutes “reference model hybridisation” (Bessy, 2010) as the combination of pursuits provides a remedy for the effects of seasonality.

**Conclusion**

The structuring of the white water sports market and regional dynamics of tourism derive from three main processes. The first comes from the historic development of canoeing. The second is due to the “touristification” of the valley based on the image of a protected river torrent fostered by the guides. The identification of the potential and complementarity of the offering enabled sports tourism to develop in the Ubaye Valley in the 1970s. The third comes from the structuring of commercial bases around a mix of niche sports products promoting the region.

In the mid 1980s, the emergence of the market was marked by events that rekindled customer interest due to the advent of rafting and white water swimming, which are more accessible than kayaking. Companies needed to resolve the issue of selling trips in synergy with stakeholders. We are validating our hypotheses. The structuring of the market is as much dependent on the activity of white water sports companies as on the strategy of professionals (tour operators, accommodation providers, etc.) involved in the “touristification” of the Ubaye Valley with the support of regional communities. The spatial configuration of the valley became a firm basis for structuring the market. The dynamic nature of the activities relies on resources that contribute to the revenue that
the territory offers. Development has hardly changed the water course as the “wild
nature” of the river torrent has become the main feature distinguishing the area from
competing destinations in the Alps.

But white water pursuits depend on sustained water flow, and plans to build one or more
micro-plants up the valley from the Lauzet could cap market expansion. Now more than
ever, the protection of natural spaces is an issue for sustainable development, uniting
service providers with local stakeholders around a shared project.

BIBLIOGRAPHIE

BERTHO-LAVENIR C., 1999.– La roue et le stylo. Comment sommes-nous devenus touristes, Paris, Odile
Jacob.

BESSY O., 2010.– « Les loisirs sportifs de nature, vecteurs du renouvellement des contours du

BOURDEAU Ph., 2009.– « Interroger l’innovation dans les Alpes à l’échelle locale, Un territoire en


Guide de savoir-faire, 2004.– Tourisme et loisirs de nature, développement touristique des territoires et
sports de nature, Paris, AFIT.


MARSAC A., 2006.– « En kayak de haute rivière, pratiques individuelles et engagements partagés »,
in Ethnologie Française, vol. 36, n°4, pp. 603-611.

MASSIERA B. et SHUFT L., 2010. – « Community development of whitewater sports in the southern

investissement physique de la rivière », Revue de Géographie Alpine / Journal of Alpine Research,
vol. 82, n°1, pp. 11-25.

OLIVE E., 1994.– Lacs et rivières des Alpes de Haute-Provence, randonnées nautiques rafting-kayak, Aix-
en-Provence, Édisud.

usages et les enjeux de pratiques sportives, de loisir et de tourisme », Bernard, N. (dir.), Le


Colin.
NOTES

1. Group descent on a series of buoys guided by paddles.
2. No railway constructed.
5. Name given to the Alpes-de-Haute-Provence before the Decree of 13 April 1970 changing the administrative name of the department.
6. Class IV-V (v. diff).
7. TCF directory.
10. Ibid.
11. The first descent of the section called *Ex infrans* was in August 1962. Canoe Club members cleared the route. Not in its entirety, however. It was not until the 1970s that canoeists navigated all of the rapids in this section.
13. Ibid.
15. Attested to by the specialist literature in English (Storry, 1991) and German.
16. CKM, 97, June-July 1990, p. 49.
18. For example, the Imade Extrêmes Challenge, held in June every year between 1989 and 1992, came after the White Water Triathlon for company teams, CKM 111, October-November 1992, p. 10.
19. There are competitive pursuits (slalom and descent) on routes that, in principle, should present no major risk. Experienced kayakers see them as different to high river kayaking, which is based on seeking out difficult rapids.
22. Interview with a founding member of AN Rafting, 2012.
23. Interview with a rafting guide (26 years old), 2012.
24. Interview with a manager (56 years old), 2012.
25. Barcelonnette Tourist Office.
26. Ibid.
27. "Starting in 1986, 100,000 francs in aid was allocated by the local public players linked to the partnership forged with the Tourist Office". Source: interview with one of the founders of AN Rafting, 2012.
28. Ibid.
29. Duels and events.
30. Barcelonnette Tourist Office.
31. The commercial kayaking offering is not very advanced in the Alps.
32. Prefectoral Order 96-1284 regulates the pursuit of white water sports in the Ubaye Valley. Navigating the highest sections of the river torrent is prohibited.
33. Besides Barcelonnette, this concerns Le Lauzet-Ubaye, Méolans-Revels, Jausiers and La Condamine.
In this article, we aim to demonstrate how the natural resources of the Ubaye Valley have shaped the structure of the white water sports market. Work by associations, beginning with the boom in the pursuit of canoeing in the 1930s, dates back the longest in the valley. It reached its peak at the end of the 1970s, marking the beginning of commercial interest. An analysis of the competitive relationships and strategies of the various stakeholders within the local context shows that the offering is based on a process of “touristification”, encouraging the emergence of competition between the companies. Since the 1980s, the expansion of these businesses in the Ubaye Valley, supported by guides, has largely contributed to the development of the first commercial white water rafting offerings in France. The market has segmented, and now consists of companies trading on the image of a protected valley to differentiate itself from competing destinations.

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