

Among dinosaur footprints and intangible heritage. Tourism as an alternative for inhabitants of Huatacondo

Entre huellas de dinosaurios y patrimonio inmaterial. El turismo como alternativa para los habitantes de Huatacondo

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Siembra 10 (2) (2023): e4559

Received: 18/05/2023 Revised: 05/07/2023 Accepted: 17/10/2023

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Abstract

This study addresses the issue of local development based on tourism in Huatacondo, a small village located in the Northern Chile. Here, high-value attractions such as dinosaur footprints, petroglyphs and other heritage resources can be found. However, there has been no discussion about the alternatives and development models that could be implemented, leaving the town exposed to the dynamics of spontaneous development, with all the consequences that this can bring about. An exploratory and descriptive methodology was applied. Results show a high value of the attractions, but a low level of suitability to be exploited. In addition, the local community recognizes and values its heritage, is interested in promoting and participating in the tourism sector. Finally, the current state of the site is suitable to start public-private management with a view to building a sustainable model for tourism development and social well-being.

Keywords: Tourism, territory, archeology, heritage, inhabitants.

Resumen

Este estudio aborda la problemática del desarrollo local desde el turismo en Huatacondo, territorio ubicado en el norte de Chile. Aquí se conjugan atractivos de alto valor como huellas de dinosaurios, petroglifos, entre otros recursos patrimoniales. Sin embargo, no se ha discutido acerca de las alternativas y modelos de desarrollo que se podrían dar, quedando la localidad expuesta a la dinámica del desarrollo espontáneo, con las consecuencias que esto puede generar. Con una metodología exploratoria y descriptiva, los resultados arrojan un alto valor de los atractivos, pero un bajo nivel de adecuación para ser explotados, además la comunidad local reconoce y valora su patrimonio, y está interesada en mostrarlo y participar del sector turístico. Finalmente, el estado actual del lugar es idóneo para comenzar una gestión público-privada con miras a la construcción de un modelo sustentable para el desarrollo turístico y el bienestar social.

Palabras clave: turismo, territorio, arqueología, patrimonio, habitantes.

SIEMBRA

<https://revistadigital.uce.edu.ec/index.php/SIEMBRA>

ISSN-e: 2477-8850

ISSN: 1390-8928

Frequency: half-yearly

vol. 10, issue 2, 2023

siembra.fag@uce.edu.ec

DOI: <https://doi.org/10.29166/siembra.v10i2.4559>



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1. Introduction

The Huatacondo ravine is located in the foothills of the Tarapacá region in northern Chile (Figure 1), 200 km southeast of the regional capital, Iquique. It is located at an altitude of 2,300 m a.s.l. and its coordinates are 20° 55'41" south latitude and 60° 03' 15" west longitude. It rises on the Majala slope and flows into the Tamarugal Pampa, which corresponds to the intermediate depression in an endorheic zone, with an important location because it connects the coast with the highlands (Alvarado Lazo and Uribe Rodríguez, 2023). Its climate is characterized by high altitude marginal desert, relative humidity, and permanently clear skies. The town of Huatacondo is located south of the ravine, where housing and service activities are carried out, while agricultural activities take place in the surrounding areas where there are cultivation areas and animal corrals.

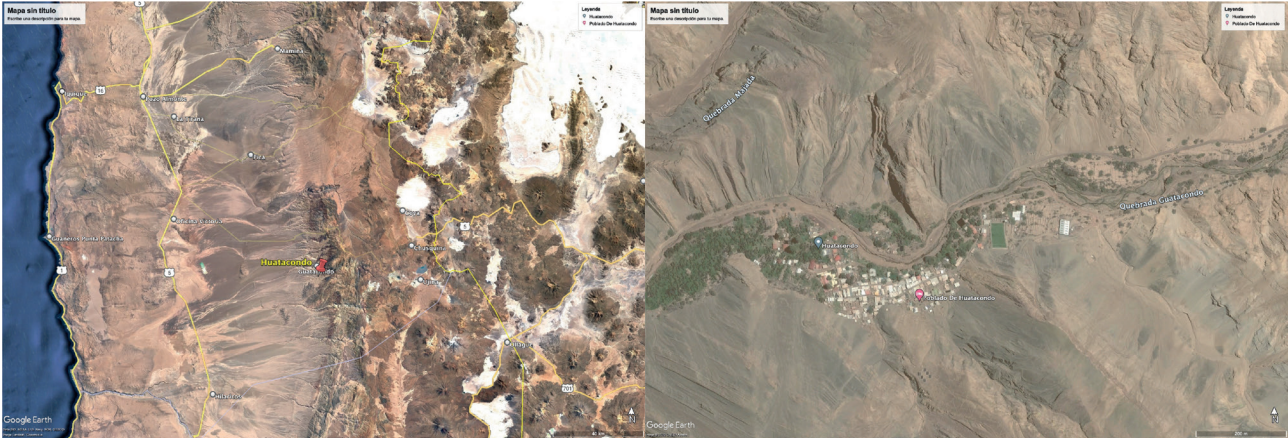


Figure 1. Town and ravine of Huatacondo.

Currently, the number of inhabitants of Huatacondo is estimated at 120 people living permanently, even though the national census established a total of 316 inhabitants in 2017. In terms of occupational characterization, out of a total of 56 people who are economically active, housewives (17) and those who carry out agricultural work (13) stand out (Caniguan et al., 2021).

This territory is located in the Atacama Desert, in a system of ravines and in the middle of the Tamarugal Pampa, which has reduced its inhabitants to living in constant isolation. This situation has improved greatly over the years due to the construction of a new access road that solved the historical connectivity problem, which has been conditioned by the local geography and the geoforms present in the area. The rains and summer downpours directly affected the road cut, causing a road disconnection and isolation that could last for months, a situation that was solved with the arrival of the alternative route to (the) town.

Conditioned by a diverse and complex geography, Huatacondo has seen for years the installation of mining operations in the area, an activity that has negatively impacted the territory from an environmental point of view due to water pollution. The indigenous Quechua community of Huatacondo, founded in 2012, has seen collective organization as the best strategy for deciding on mining actions in their territory (Caniguan et al., 2021), obtaining economic benefits and infrastructure improvements thanks to agreements made between the community and the companies.

The town is located in the interior of Pozo Almonte, a commune that is home to places with greater tourism development, such as La Tirana or Mamiña, in addition to concentrating high-level attractions such as the Humberstone and Santa Laura saltpeter works, declared a World Heritage Site by UNESCO in 2005. Likewise, these territories are different from Huatacondo, understanding that the elements of tourist attraction that they possess are substantially different from those of the town. The town of La Tirana is characterized by being the site of one of the largest religious festivals in Chile. Mamiña, on the other hand, has as its main attraction its hot springs with healing properties and the saltpeter works keep a legacy and historical heritage present in the collective memory of the inhabitants of the north of the country. In this sense, the possibility of inserting the locality as part of the complementary offer of the tourist poles of greater concurrence within the commune appears as an alternative of development, understanding that the archaeological and identity patrimony in the zone is of a unique character. Tourism appears as an opportunity for local development and

in this line, the natural, archaeological and cultural heritage present in the area can play a fundamental role, since it constitutes an element of high tourist value.

There are no records of the current sources of income of the town's inhabitants. According to the latest update of the Human Environment Baseline (Caniguan et al., 2021), employment in the area is led by housewives (36 %), followed by those who work in agriculture (28 %). Despite the above, and according to what was perceived during the visit to the area, it was found that in recent years there has been an increase in occupations related to mining activities, as well as in those services that have made up the tourist offer in the area, such as lodging, restobars and guided services. Thus, tourism-related activities have experienced a boom as a result of the growing demand (even lower) of visitors, which has encouraged residents to undertake, reaching to develop new sources of income. This background suggests that, if the flow of tourists in the territory continues to increase, the opportunity to create new sources of employment would be a reality, as well as profitable, necessary to meet the needs of the new visitors to the territory.

1.1 Main attractions

In Huatacondo it is possible to find from petrified waterfalls to dinosaur footprints. The following is a description of some of the attractions and other elements that are part of the territory.

- Petrified waterfalls. Formed by the runoff of water with high mineral content over thousands of years, these waterfalls, also called "cales", show a very particular waterfall of rare geological peculiarity (Figure 2A).
- Devil's Throat. With a particular denomination, it includes a narrow path formed by high rocks of the gorge (Figure 2B), which as one advances gives the sensation of being swallowed by a throat, reason of where its name comes from.
- Pre-Hispanic villages. The villages of Huatacondo and Ramaditas (Figure 2C) are located 12 km from each other. They correspond to archaeological sites that were built with wet mud mixed with andesite and basalt stones. The enclosures follow a dispersed pattern, with plants undermined in the ground, mostly with oval shapes, curved walls (Ministerio de Bienes Nacionales, 2018).
- Dinosaur footprints. In the area it is possible to find more than a thousand footprints belonging to dinosaurs of different groups, such as Theropoda and Ornithopoda (Figure 2D). The formations date from 155-161 million years ago (Salinas et al., 1991).
- Chele dunes. Formed by the accumulation of sand, they provide the perfect setting for activities such as sandboarding and other types of tours, in addition to offering a unique panoramic view of the Huatacondo ravine (Figure 2E).
- Petroglyphs. Evidencing the lifestyle of the caravaneers and their daily activities, these drawings stand out for their well-defined shapes and expressiveness, describing in a very subtle way what their authors experienced (Figure 2F).
- Village church. The temple baptized as "Nuestra Señora de la Asunción de Huatacondo" dates from the XVII century and is where the town's iconic celebration takes place, the patronal feast, which every August 15 attracts more than 2 thousand faithful, who participate in the festivities that last for more than a week. Unlike the traditional Andean temples, this one stands out for its Mediterranean architecture (Figure 2G).

1.2. Problems and objectives of the study

The rich heritage of the territory, together with the recent discovery of hundreds of dinosaur footprints that would be the oldest in Chile (Chilean Mesozoic, 2020), and the still smaller but steady growth of informal tourism, intertwine aspects that, when viewed from the outside, raise questions such as: Is it possible to achieve local development based on tourism? It is important to know what are the current conditions of the place in order to think about the development of a more relevant tourist activity that could also trigger a sustainable local development. There is, therefore, a problem related to local development and the relationships that exist between those who inhabit and cohabit a common space (Harvey, 1998), where there is a local community with customs and ways of inhabiting its territory, with its flows, transactions, displacements, etc., and, on the other hand, tourists and their potential flows. Therefore, it should be analyzed whether they could coexist and contribute to this community.

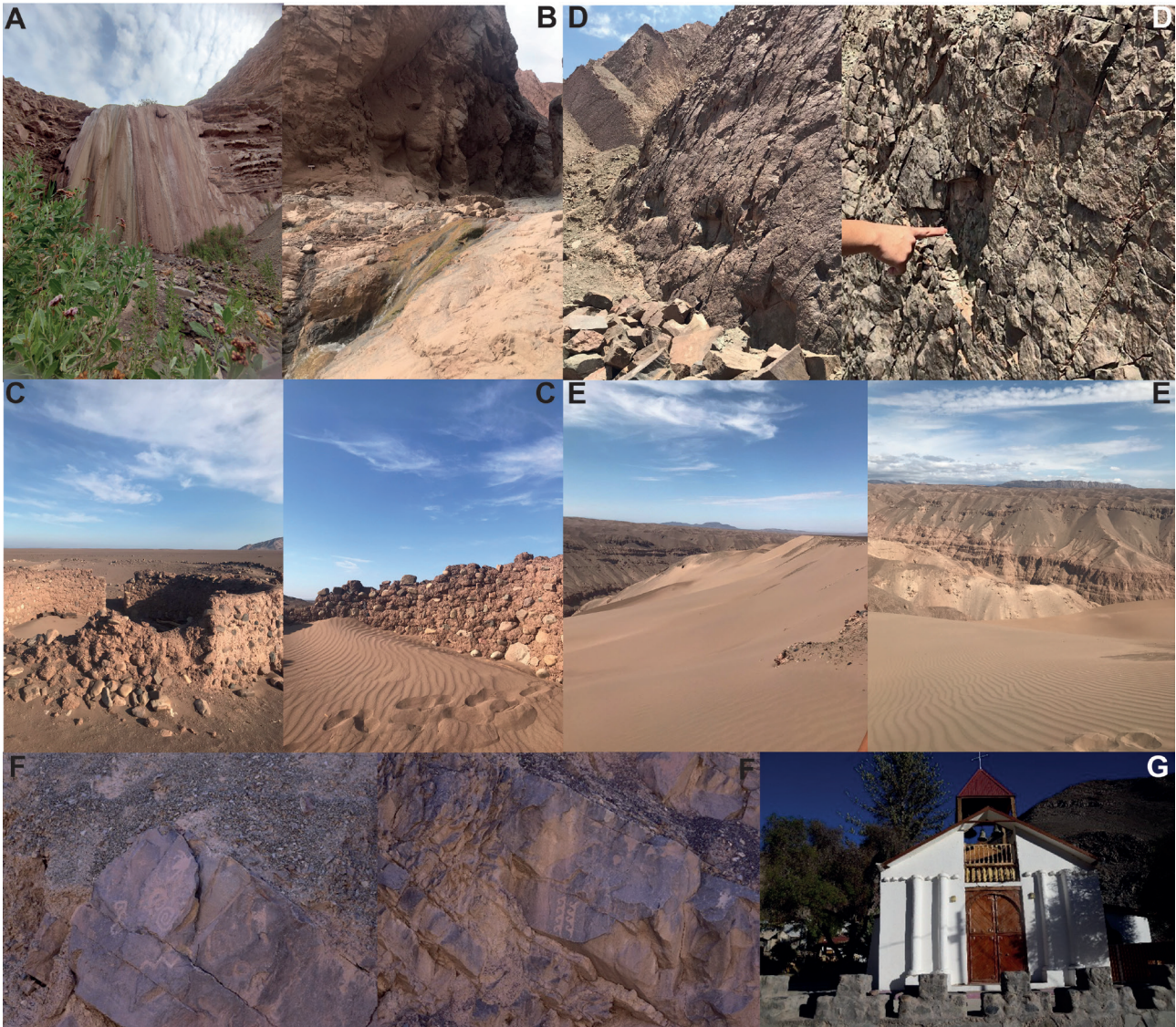


Figure 2. A) Petrified waterfalls, B) Devil's Throat, C) Ramaditas Village, D) Dinosaur footprints located in the vicinity of the village, E) Chele Dunes, F) Petroglyphs located in the vicinity of the village, G) Village church.

The objective of this study is to understand the conditions of the town of Huatacondo and the surrounding territories that make up the locality, with a view to thinking about a future development of specialized tourist typologies, based on the main existing attractions and the archaeological heritage that is trying to enhance its value. In this same sense, it is important to know what is the vision of the local community, understanding that they are key actors in the development of a territory since people and their subjectivity are crucial (Barbini, 2005), and they should be consulted about their relationship with a phenomenon that can directly affect their quality of life. It is necessary to raise and discuss, then, some probable scenarios considering these relationships between territory, community, economic activity and the tangible and intangible heritage present.

1.3. Theoretical and associated literature review

1.3.1. Local development and the relationship between tourism and heritage

The local development of territories is not exempt from obstacles and difficulties when it comes to approaching it (Arocena, 1995), given that it represents a major challenge for many places that see the possibility of taking advantage of their potential to achieve social wellbeing, sometimes remaining only an idea that fails to become a reality due to ambiguous concepts such as the region or the nation (Álvarez García & Rendón Acevedo, 2010).

Albuquerque (2004) mentioned that approach “from below” to refer to a development based on the logic of improving the conditions of the population and taking advantage of endogenous resources. On the other hand, Boisier (1997) mentions endogenous resources and the interplay between the logic of the State and the articulations with other actors in the territory, a relevant concept given that, in the case of tourism, it constitutes the basis for the construction of the destination.

The territory is a space that demands the need to create adequate conditions for its development through interactive processes (Vásquez Baquero, 2007), therefore, heritage and culture are fundamental elements in this interaction. Heritage is a high-level attraction for the development of tourism (Almirón et al., 2006), which is evidenced by its continuous incorporation into the different tourism products and services in the local offer. From this perspective, it could be said that heritage processes could be present in the territories, to the extent that communities are open to the possibility of showing and exposing the value of their cultural heritage, which could be seen in the use of this heritage as a tourism resource, since although UNESCO proposes certain guidelines in this area, in the end, it is the local actors of a community who carry out the actions (Aguirre Tejada et al., 2021).

This provides an opportunity for those territories that have a valuable heritage to make use of it through different strategies. One of these forms or strategies could be the museification proposed by Muñoz and Llano (2021), who explain it as a process in which the territory becomes a kind of museum, where its heritage is part of its own aesthetics and must be maintained over time, because if it changes it would affect the image of the destination itself. This process of patrimonialization brings with it problems such as the inability to show the changes in social dynamics, falling into a commodification of the same. In this same field, Leira López (2013) refers to the concept of territory-museum as a place for cultural consumption in an outdoor space integrated to the way of life of the inhabitants of a community, and also as an organizational structure that aims at local development, which would be presented as a more sustainable way to approach the use of the territory and its heritage since the integration of the community in the enjoyment of the visitor would evidence a brand-territory towards the markets to be targeted.

In order to care for this heritage and thus maintain it over time, the role of the community becomes key, since heritage preservation represents a responsibility of the different actors that coexist in the territory. For Velasco Salinas (2020), this social valorization of heritage has to do with the significance that heritage assets have within a community, and to understand it, it is necessary to evaluate its meaning, identifying the most recognized and distinctive attributes among people. When heritage is composed of archaeological assets, the immediate temptation is to consider them as a tourist resource, however, not necessarily the archaeological heritage of the territory is constituted as a tourist attraction (Moreno Melgarejo & Sariego López, 2017). In order for them to become archaeological tourist resources, they must be conditioned to guarantee their conservation, in addition to the well-being of the visitor.

1.3.2. Tourism development models

Tourism is today one of the most widely used phenomena as a tool for local development (Gambarota & Lorda, 2017), mainly because of the possibility of taking advantage of the resources that a territory has to propose more and more non-traditional activities targeting increasingly informed tourists. A model can be understood as an instrument to facilitate coordinations and decision making among actors sharing in a tourist destination (González & Rivas, 2008, as cited in Pearce, 2016). Moreover, that they are the orientations or bases for the management of a territory. In this view of tourism development, some important approaches to consider in the analysis of territory management for the activity can be mentioned. Merinero Rodríguez & Pulido Fernández (2009) propose a view that includes a systemic vision of the phenomenon, the competitiveness of destinations and the relevance of local stakeholders. These approaches conclude that the degree of tourism development of a territory is closely related to the dynamics with which the actors relate, as well as the relationship between the public and private sectors, especially in territories in the initial phase of their management, as is the case of Huatacondo in the Tarapacá Region.

If it is a question of analyzing alternatives for territories that are open to the possibility of turning tourism into an engine of development, it is possible to propose various options and approaches. Starting with economic and free market-centered views, Porter (2015), in his theory of clusters, pointed to the opportunity to use the resources of the territory through the installation of concentrated companies and operators, specializing and increasing competitiveness based on strategies such as economies of scale and differentiation. From a perspective more in line with the challenges of today's world and considering the Sustainable Development Goals [SDGs], the

principle of sustainable tourism can be considered as a way of approaching tourism development in the territory, rather than a product or typology (Cardoso et al., 2014), however, it provides important guidelines on economic, social and environmental balance when planning territorial development with tourism as a productive engine.

As one of the integral proposals for tourism development, the Crouch and Ritchie (2000) model, refined in Ritchie and Crouch (2003), seeks that territories can develop tourism based on the relationship between their comparative advantages to achieve a competitive advantage, starting from their endogenous resources and those developed. In the case study, we could mention broad comparative advantages due to its attractions; however, competitive advantages would not yet exist and would be the management objective to be achieved. From another perspective, the Dwyer and Kim (2003) model is similar to the previous one, but emphasizes differentiating the resources of the territory and incorporating a set of indicators to measure the quality of life, in addition to the competitiveness of the destination. If this is taken from the perspective of the development of the tourism territory based on the variables of visitor flows and the time required for its maturity, then the life cycle of destinations (Butler, 1980) presents an interesting approach to understand what stage a territory like Huatacondo could be in, considering variables such as current visitor flows, supply of services, actors involved, among others.

Finally, the tourist specialization that a territory can reach will depend to a great extent on the management that can be carried out in it. Analyzing the case of this locality in northern Chile, some development models such as the so-called “geoparks” could also be considered as an option. In this sense, they can be seen as a conservation strategy that enhances the knowledge of geology and also the development of local tourism, and are complemented by other forms of heritage conservation that each region or state may have (Sánchez-Cortés & Simbaña-Tasiguano, 2018). In addition, among other benefits, one can mention the opportunity to develop entrepreneurship and local economies due to their greater proximity to local communities over other areas or conservation models such as national parks (Farsani et al., 2011).

2. Materials and Methods

The work addresses a mixed methodology, as it employs the use of qualitative and quantitative elements for the analysis of the relationships associated with the phenomenon under study (Hernández Sampieri et al., 2014). To this is added an exploratory and descriptive character in the search for information that allows understanding the local reality, analyzing the perceptions of a community, in addition to on-site observation by the researcher. A visit was made to the town of Huatacondo (Figure 3) in two instances, of two days each, which allowed, first, a tour of the different corners and attractions that make up this place, and second, the application of a semi-structured questionnaire to the inhabitants of the community.

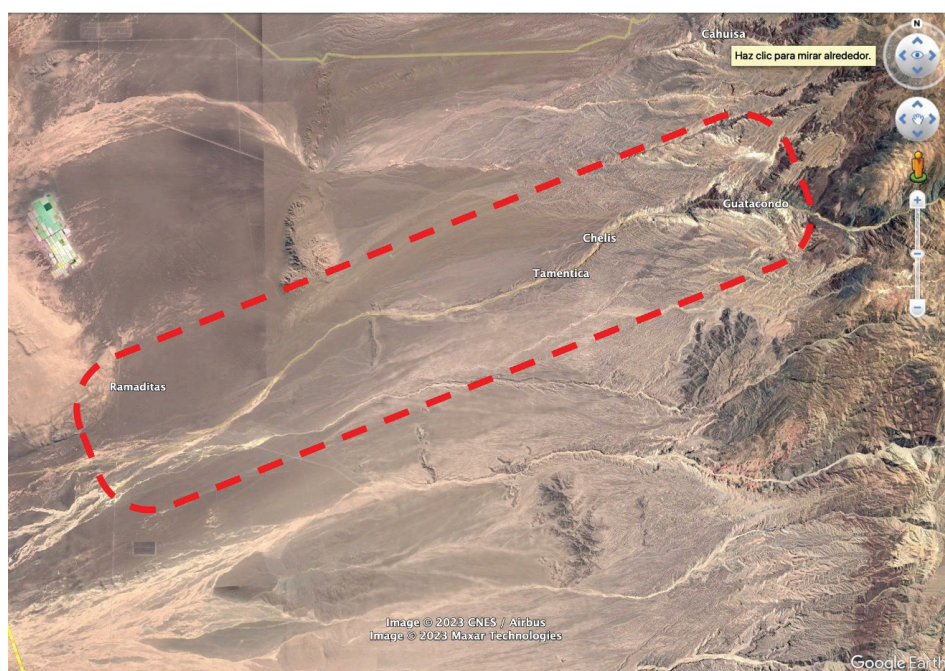


Figure 3. Study area.

During the tours, participant observation was carried out in order to evaluate aspects such as distances, access to the sites, and existing facilities for walking and tracing. For the analysis, an evaluation of the attractions identified in the area was also carried out, based on a selection of criteria described below, in addition to the evaluation of the capacities installed in the territory. Subsequently, a methodology developed by Manzato and Rejowski (2007) was used to evaluate the degree of suitability of the attractions for use in tourism activities. This technique is explained with the following equation [1]:

$$E = \frac{SMA \times 100}{T} \quad [1]$$

Where:

- E = Tourism adequacy index (percentage)
- SMA = Very adequate sites (number)
- T = Total number of tourist sites in the State (number)

Interpreting the percentage of E as follows:

- E = 80 % to 100 % ▶ Advanced state of tourism exploitation.
- E = 50 % to 79 % ▶ Intermediate state of tourism exploitation
- E = 20 % to 49 % ▶ Initial state of tourist exploitation
- E = 19 % to 0 % ▶ Non-existent state of tourist exploitation

The questionnaire used an interview instrument with open-ended questions oriented towards the perception and appreciation that local people have of their heritage and its potential relationship with the tourism sector. The application of the questionnaire was carried out in person in the town of Huatacondo itself, trying to cover as many inhabitants as possible, taking advantage of the fact that the population is estimated at 120 permanent people, even though the official census indicated 316 inhabitants in 2017. For the evaluation of the attractions, the perception that local inhabitants have regarding them was taken into consideration. Likewise, in the opinions obtained through the surveys it is possible to identify a conception of the inhabitants based on their appreciation for the town. On the other hand, the analysis carried out by the areas of heritage and archeology, and flora and fauna, which have specialists in the municipality of the commune, were used as a structural basis for the evaluation.

Finally, the number of people to whom the questionnaire was applied was 50, which represents approximately 16 % of the total official population and approximately 42 % of the permanent residents. Nevertheless, the objective of this part of the study was related to explore the perceptions and knowledge that the community has regarding its heritage, as well as its vision of an activity such as tourism, and to discuss and relate it to the theories and approaches to local development.

3. Results

3.1. Conditions of the territory

3.1.1. Installed capacity

Although there is no comprehensive tourism development plan, it is possible to find tourism facilities and infrastructure, such as signage or information panels, and even basic support services for visitors, such as lodging, restaurants, and tour operators. These are scarce and are not formally registered with the National Tourism Service [SERNATUR] or official websites; however, based on field observations, there are six lodging facilities available (hotels, cabins, hostels, and a campsite) and two food services that operate as restaurants during the day and bars at night. There are also informal grocery stores, which have basic provisions, but do not meet the required demand. Finally, it is important to note that there is an infrastructure project called “El Tambo,” which was created to serve as a tourist center, but it also serves as a territorial control and patrimonial monitoring point (Figure 4). It has bathrooms, a parking, a kitchen, a water pond, and rooms suitable for overnight stays. Although the work is well thought out and equipped, to date no one is permanently in the place, so it does not respond to the reason for which it was created.



Figure 4. Huatacondo's Tambo

3.1.2. Value of attractions

The objective of this section is to establish the value of the territory's attractions. To this end, a table was created that uses a series of evaluation criteria, which are described in order to clearly understand the importance of the attractions for the territory and the level of significance they provide to it (Navarro, 2015). These are briefly explained below:

- **Uniqueness:** the aim is to measure the particularity of the resource in comparison with other resources of the same nature, considering whether they are unique, or unrepeatable.
- **Accessibility:** to analyze the distance, time and means required to reach the tourist attraction from the places of access to the town.
- **Seasonality:** whether the tourist attraction could be used only during specific seasons or throughout the year.
- **State of conservation:** refers to the current state of the attraction or its level of fragility.
- **Relevance:** degree of connection with local culture and history.
- **Significance:** it is about measuring the importance of the attraction.

The evaluation scale will be composed of the following components: high, medium and low. In this way, each attraction will be assigned one of these three measurement levels depending on the criteria analyzed, thus obtaining a complete characterization of the attraction.

Eight attractions were selected for the construction of the table in question, including natural and cultural attractions.

The analysis shows a high value of the territory's attractions. Of the eight considered, five present a high level of uniqueness; a good state of conservation also stands out in 87.5 % and the degree of seasonality can be considered minimal. Significance and degree of identification with the local area are other strong points; conversely, accessibility is the criterion that obtains the lowest level of measurement, which reveals one of the weakest points of the attractions, mainly due to the conditions of the territory in this part of northern Chile.

Table 1. Evaluation of the tourist attractions of the village of Huatacondo.

Attraction	Analysis criteria					
	<i>Uniqueness</i>	<i>Accessibility</i>	<i>Seasonality</i>	<i>State of Conservation</i>	<i>Relevance</i>	<i>Significance</i>
Prehispanic Villages	High	Medium	Low	High	High	High
Petrified waterfalls	High	Medium	Low	High	High	High
Chele Dunes	Low	Low	Low	High	Low	Low
Devil's Throat	Medium	Medium	Medium	Medium	High	High
Geoglyphs	High	Medium	Low	High	Medium	High
Dinosaur footprints	High	Medium	Low	High	High	High
Village church	Low	High	Low	High	High	Low
Petroglyphs	High	Low	Low	High	High	High

For a better understanding of the information provided in the table, it is consistent to go deeper into the assigned valuation. Taking as an example the attraction “Dinosaur footprints”, it was considered pertinent to give it a high level of singularity and significance, due to the fact that more than a thousand footprints were recently found in the territory, which sets a precedent at the national level in terms of archeology, since there is no other site with this concentration of footprints and with this level of conservation. On the other hand, the state of conservation of the ichnites is particularly good, which is due to the fact that many of them are not easily accessible (for this reason, a medium level was assigned in the accessibility criterion). It should be clarified that there are also more accessible tracks, which are located near the town and can even be reached on foot. Seasonality is not a factor that conditions the attraction, since it is possible to visit throughout the year. Finally, it should be noted that, as with most of the attractions, the degree of identification with the local area is high, which is closely related to the identity component characteristic of the territory. This is further confirmed by in the following part of the study with the local community.

The pre-Hispanic villages and petrified waterfalls have exactly the same evaluation as the dinosaur footprints; while, the geoglyphs and petroglyphs have very similar evaluations, as do the Devil's Throat and the town church. The Chele dunes are the attraction that obtained the lowest evaluation of the eight selected. To summarize, it is possible to maintain that accessibility is practically the only conditioning factor of the attractions analyzed, therefore, this is where efforts should be focused. The attractions benefit from the other criteria examined, which is a sign of the great potential that they represent.

3.1.3. Degree of suitability for tourism

In accordance with the previous point and in order to achieve a more exhaustive analysis, the methodology proposed by Manzato and Rejowski (2007) was used, which allows to assess the situation of the attractions and, more specifically, the suitability of the sites for tourism use. The methodology proposes a scale that evaluates the attractions as Very adequate, Adequate, Not very adequate or Not adequate.

Taking into account the same attractions previously evaluated, it can be said that of the eight selected, the church is the only one to be diagnosed within the “Adequate” category, which is mainly due to the fact that it is located in the town; thus, the church has been restored and has been subject to maintenance, a situation very different from the reality of the other attractions, which are rated as Not very adequate, or Not adequate, because they do not have the minimum conditions, such as informative signs about the place, or how to access it. This shows the lack of facilities that characterize the attractions, and -although it is recognized that there are some signs indicating the location and distance-, it is not enough. There are no tools that indicate, or provide more information to the visitor about the place visited. Evidently, the lack of planning instruments is one of the biggest problems in the area, and has a direct impact on the condition of the attractions. It should be noted that of all the sites evaluated, none qualified in the Very adequate category. However, according to the equation proposed by Manzato and Rejowski (2007), which makes it possible to identify the state of tourism exploitation in the sites, the result equalled a value of $E = 0\%$, considering $SMA = 0$ sites and $T = 8$ sites, and therefore there is a non-existent state of tourism exploitation.

It follows that tourism in Huatacondo is in a non-existent state of tourism exploitation. Consequently, it is possible to establish that although in the calculation this condition of non-existence of exploitation is established, in the field observation it can be established that there are incipient tourist activities such as visits to the town and some of the attractions mentioned, so that this non-existence is not absolute, but a way of stating the initial tourist activity in the area.

Although the territory has archeological, natural and cultural attractions of great relevance, based on their level of uniqueness, significance, state of conservation and degree of adaptation to the local context, they do not yet have a tourism management system; which, if implemented, would make possible a higher level of tourism development that is more closely related to the magnitude of the attractions in question. It was demonstrated that accessibility is the weakest point, as well as the facilities, so special attention should be paid to the management of these issues, and it should be done as soon as possible, in order to achieve their development and, thus, be able to move on to other areas that also require it.

3.2. Local community perception

The study made it possible to learn about the value and current knowledge that the inhabitants have about their territory, as well as their opinion regarding potential tourism development in the area. The data collection allowed us to establish that of the total number of people interviewed (50), 50 % are not natives of the area. Of the 25 people who come from other places, 16 have been living in the town for 10 years or less (64 %), while the remaining 9 (36 %) have lived in Huatacondo for 11 years or longer.

The analysis of the information obtained through the surveys reveals the strong identity component that characterizes the community, which is reflected in the appreciation they feel for their territory and the recognition they give to their customs and traditions (Figure 5). Of the total number of people surveyed, 49 affirmed that they feel appreciation for the town, which corresponds to 98 % of the sample. The most frequently mentioned identity element is the petrified waterfalls, one of Huatacondo's main attractions. In cultural matters, the data reveal that the celebrations of spiritual or ancestral character are one of the components with which the inhabitants of the town identify themselves the most, highlighting among the main ones the Patronal Festival (August 15) and the Festival of the May Crosses (carried out during every weekend of the month); in addition to this, the town's church is mentioned on several occasions, which is identified with the strong religious component that characterizes the territory. Another important identifying element is the dinosaur footprints, which together with the "cales" are perceived as the most representative tourist attractions of the area.

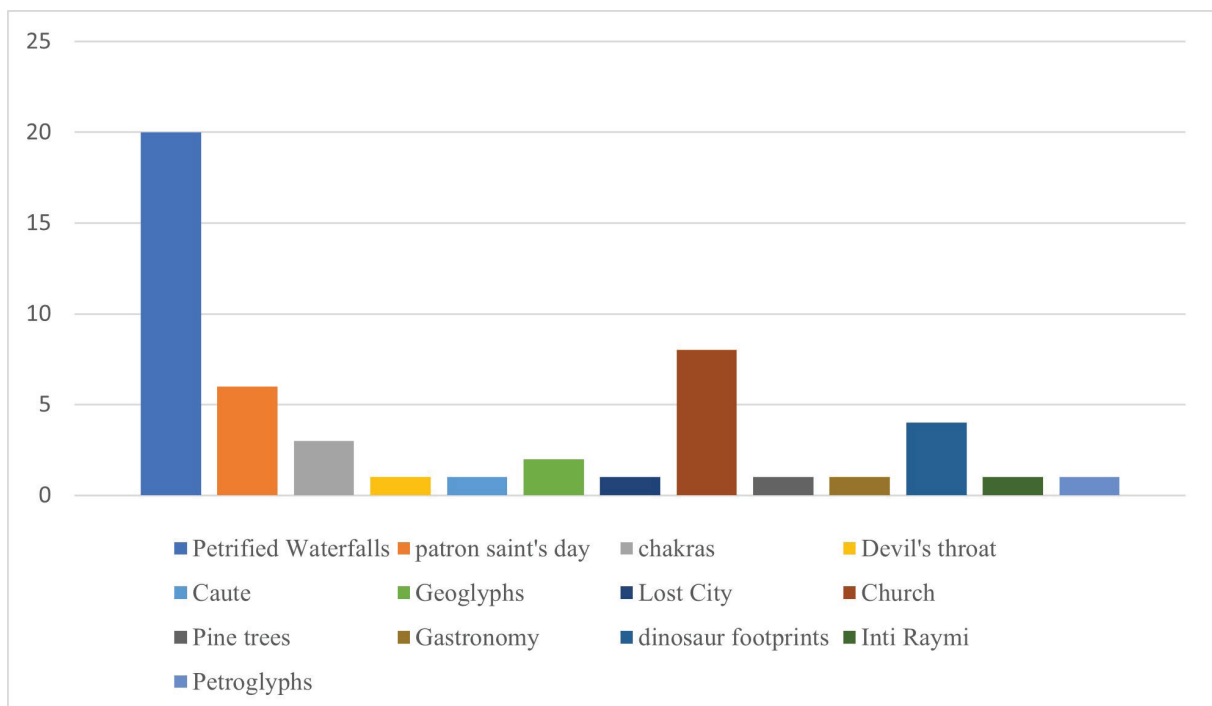


Figure 5. Elements of identity representative of Huatacondo.

In order to learn about the local collective imagination (understood according to Gaceta Sanitaria, 2010), the Huatacondina population was consulted about stories that demonstrate, or reflect some type of popular belief, where the participants shared their own experiences and/or those of people close to them. Goblins, a virgin, and a man with a gold tooth are the most frequently mentioned stories, which are part of the intangible cultural heritage of the area. It should be noted that the inhabitants relate their experiences naturally, which shows that the supernatural and legendary are very present in the town.

Regarding tourism, all the people who participated in the survey were asked if they knew about the development of tourism activities in the area (Figure 6). The responses showed that more than a third said they were aware of guided tours in the area; thus, guided tours are the most well-known activity in the area. This is followed by visits by private tourists, archaeological tourism, the existence of a tourism company in the area, and not knowing if tourism activities are carried out in the town. On the other hand, the least repeated responses correspond to the presence of some restaurants and the practice of sandboarding.

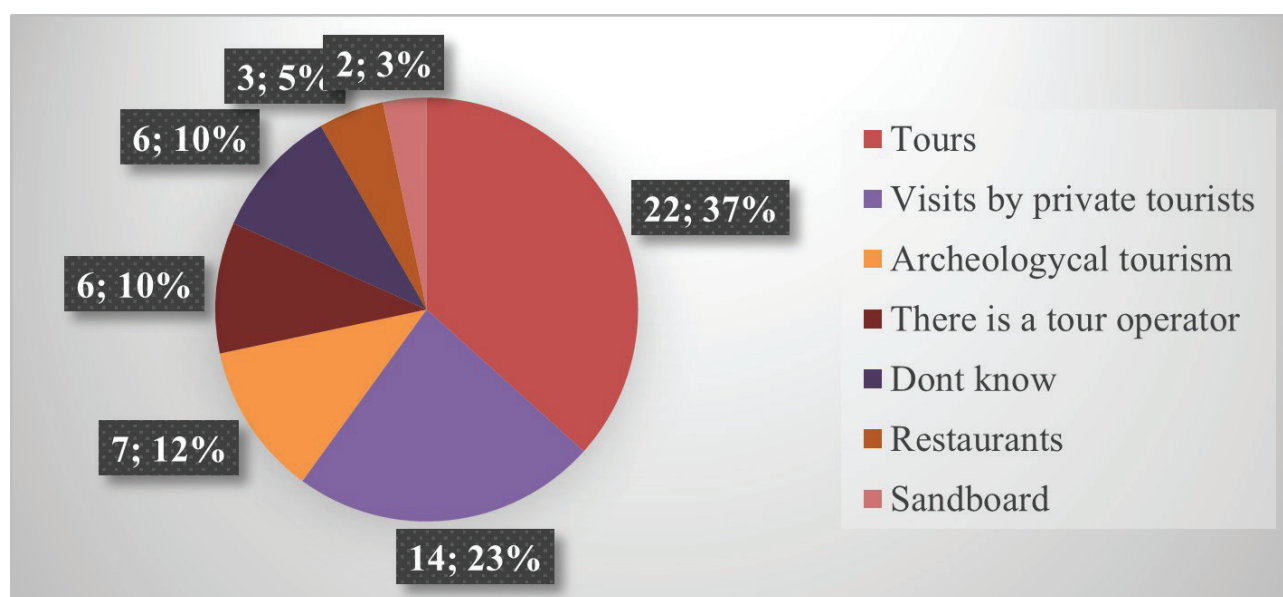


Figure 6. Tourism activities developed in Huatacondo according to the perception of its inhabitants.

When the community was asked about their participation in any tourism-related event, the results showed a minimal difference. 52 % of those surveyed said that they had not participated in any tourism-related activity. Fifty-two percent of those surveyed said they had not participated in activities of this nature. Those who indicated that they had not taken part presented their reasons, among which were work-related issues, lack of time and not having had the opportunity so far. On the other hand, there were those who indicated that they had visited attractions on their own and others who had accompanied visitors on tours of the town.

In order to achieve an analysis of a complex territory such as Huatacondo, we sought to know the community's perception of the tourism activity currently being carried out in the area, understanding that it plays a key role in local development and, therefore, the possibility of democratizing the territory, as mentioned by Albuquerque (2004), should be opened up. Thus, the people surveyed gave their point of view about tourism as an activity that serves as an engine of development for the town and in this case, 48 of the 50 participants (corresponding to 96 % of the sample) saw tourism as a profitable opportunity.

Among the reasons for believing that tourism can be an activity that can serve as an engine of development in a future scenario are: "it can generate income and help the local economy", "it can help the town become known and thus attract more people" and "it adds value to the local culture". On the other hand, there are those who do not perceive this in the same way and among their reasons they include that "there is no real interest from the people" and "the characteristic tranquility of the town could be lost".

Respondents were also asked about the benefits or negative aspects that tourism currently generates in Huatacondo. 44 % of the respondents considered that there are problems related to the arrival of tourists to the town. Among the opinions expressed were that there is destruction of attractions and/or loss of privacy and

insecurity, activities that are linked to the visit of foreigners. On the other hand, the benefits most associated with the arrival of tourists are related to the economic income received from this activity and the recognition of the town. A small number of people added that with the arrival of more people it is possible for development to contribute to sustainable practices and conservation measures for the attractions.

When asked whether or not the local community participates in the development of the town's tourism activity, the data indicate that 70 % of those surveyed consider that residents are actively involved in the area. In addition, it is possible to establish that more than two thirds of the sample (84 %) believe that the Huatacondino resident is hospitable and welcoming to those visitors who come to the town.

It is possible to recognize a strong sense of belonging of the community to the territory. Through the multiple responses given, the residents demonstrate that they feel appreciation for the place and it has a special value for them. This is related to previous questions, where they recognize that the arrival of tourists brings multiple benefits to the town.

The territory has a unique archaeological heritage in the region and its inhabitants are aware of the great cultural resource that this means. Eighty-eight percent of the participants in the survey said they were aware of the discovery of more than a thousand dinosaur footprints that were found in the area recently. Geoglyphs, petroglyphs and pre-Hispanic villages are just some of the many vestiges that make up the archaeological panorama of Huatacondo, elements that its inhabitants are very aware of and therefore assign a high heritage value to each of them. There is a tendency to show the archaeology present in the territory, and 64 % of the people surveyed support this; however, there are also those who would opt for the creation of a space exclusively for exhibiting the remains, such as a site museum (20 %) and, to a lesser extent, there are those who prefer not to expose the heritage in any way and would like to protect it for conservation reasons (16 %).

Based on people's responses, it is possible to infer a local interest in tourism development in the territory, taking into account the series of attractions and archaeological resources present in the area. As evidenced by the responses, there is an intention on the part of the community to achieve progress and a willingness to evolve along with tourism development and the efficient management of resources and the territory.

4. Discussion

From a geomorphological perspective, the town of Huatacondo is a complex territory due to its natural conditions in the middle of the Atacama Desert, with the harshness that are inherent in this type of extreme zones. However, it is also a hidden treasure between mountains and sand, with a heritage of high value linked to the nature of remote times, but also to the contemporary people, their customs and traditions. All this makes it a place of interest for tourism, which, although it has begun to develop, is still far from being an important activity for the people who live there in aspects such as their economy, employment or social wellbeing. Nevertheless, tourism is, without a doubt, a concrete possibility for the locality and its territorial actors should begin to think and discuss how it could be developed.

Even though the value of the attractions is high, clearly the current condition in terms of tourism is very basic and the locality is not in a position to directly exploit specialized tourism (Manzato & Rejowski, 2007); however, it is possible to evaluate the directions in which public and private management efforts could be directed. In this sense, the relationship between the number of visitors and the expected level of expenditure becomes relevant, since the remoteness of the area, the specialty of the themes such as archeology and the fragility of some of the territory's resources, make it necessary to think of tourism with a low volume of visitor flows, but of high value to compensate for the sale price of the products and services. In commercial terms, tourism products and services should have a high added value through complementary offers (local gastronomy, typical handicrafts, etc.), since the groups of visitors should be small, which raises the cost of production and, therefore, also raises the selling price. This would also mean that the people involved in the services would have to have relevant knowledge in areas such as geology, paleontology, tangible and intangible heritage, among others. This raises some important questions such as, for example, whether the local community could be trained to work in the provision of the services that some foreign companies may provide. If not, will there be local entrepreneurs with the capacity to start services with this level of specialization?

Analyzing the data from the study, the community is open to the possibility of participating in tourism and eager to show its heritage, even being able to identify its main attractions, which reveals a concrete possibility for tourism activity aimed at sustainable development, involving the community that understands and

values its heritage (Barbini, 2005). If we take the models mentioned above, such as the one put forward by Leira López (2013) with the idea of a museification of the territory, as well as Muñoz and Llanos (2021) who propose opening spaces as museum-territories, Huatacondo could be an interesting scenario for a proposal for a tourist destination specialized along these lines. The mix of attractions, such as dinosaur footprints, petroglyphs, scenic beauty and villages with their own characteristics form an important basis for medium- and long-term tourism, that travels through the different sites by means of interpretive tours as in a large open museum. The latter entails working with local actors, not only those of the locality itself, but also those actors with experience in developing offers in the Tarapacá region, given that strategies would be needed for the implementation of a greater capacity in tourist facilities and equipment, which is only possible with adequate public-private work.

In the end, are only the degree of attraction and commercial possibilities at the tourist level the most relevant elements to advance towards local development in this locality? Although from a touristic point of view it would seem to be so, the manifest desire of the community and its position of wanting to participate in its own development cannot be ignored. This implies that, although the technical-commercial conditions are not the most adequate today, the decision of the people who live in a territory to be willing to participate in what they perceive as an opportunity to improve their quality of life, provides an important basis for planning from within and in a democratic, and participatory manner what could be understood as local development.

5. Conclusions

The first reading of a territory in terms of tourism could be understood as the degree of attraction that it has from its attractions and their value. In the case of Huatacondo, the attractions are of high value because of their uniqueness or the significance they represent, which -in terms of tourism-, reveals a high potential to develop here an activity specialized in archeology and material and immaterial heritage. From the perspective of the construction of tourist offerings, attractions such as dinosaur footprints, petroglyphs and places with scenic beauty in an inhospitable place are important components to think about the creation of products and services for the tourist market that seeks this type of resources.

In terms of the degree of exploitation possible, the current conditions are not sufficient to begin to exploit specialized tourism, mainly because of the lack of basic support elements for the protection of territorial resources, and for the experience required by visitors. Nonetheless, there are already some guiding services in the area, which show that tourism activity will probably continue to grow as more and more attractions become known, such as the large number of dinosaur footprints that have recently been discovered. This implies that tourism development will take place; however, if public-private alliances are not generated to think and plan it, it will probably end up being spontaneous and with negative impacts for the territory and its community.

There are interesting alternatives and models for tourism development, some more market-oriented and others more geographically and territorially oriented; however, there is no single or fully replicable model and, in the long run, it is necessary to build one's own, from the inside out, from endogenous resources, with the local community and with the natural conditions imposed by the geography. It is also advisable to consider some relevant aspects of each (of them), such as the comparative advantages that a place like Huatacondo may have, or the possibility of offering it as a territory-museum, with emphasis on geology, but also on people and intangible heritage.

Finally, local development involves conditioning aspects, such as the reality of the territory in which one lives, in the case of Huatacondo between ravines and in the desert, but also of decisions that are made considering the people who live and cohabit, community and visitors, with the participation of the different relevant actors in the public and private spheres. It is then also a longing, a manifest desire of those who could act as actors of their own development, in that collective imaginary that can be the starting point for their own wellbeing.

Contributor Roles

- Alan Aníbal Muñoz Bascuñán: conceptualization, investigation, methodology, supervision, validation, writing - original draft, writing - review & editing.
- Camila Paz Rodríguez Gamarra: conceptualization, investigation, project administration, writing - original draft.

Ethical Issues

The authors declare that the survey conducted in the community of Huatacondo was anonymous, and prior to conducting it, the consent of each respondent was obtained.

Conflict of interest

The authors declare that they have no affiliation with any organization with a direct or indirect financial interest that could have appeared to influence the work reported.

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