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Article

Genealogy and artisanal trajectory of the criollo cheese in cocoyam leaf of Hidalgo, Mexico

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Abstract:

The objective was to provide qualitative information on criollo cheese in cocoyam leaf, in order to contribute to disseminate its presence and make its valorization and its permanence as a local gastronomic heritage possible. In methodology, a structured survey was applied to 18 cheese producers, covering all the people engaged in this activity. Focused semi-structured interviews were also carried out with key persons, such as the oldest people who are still producing it today, as well as the marketers. Also utilized were the methodological tools of oral history, the genealogical method and the technological trajectory. The manufacture of this cheese was found to involve a high degree of craftsmanship, and the expertise associated with its production is the same as that was used by the ancestors of the producers, with minimal modifications in the process. It can contribute to its diffusion and valorization as a local gastronomic heritage by mentioning to the consumer that this cheese, in spite of the time, has preserved a highly artisanal character. Therefore, the peculiarities it

has acquired from the physical and cultural environment are expressed in a characteristic flavor, a higher fat content, and different coloration and consistency. All of this, together with its packaging in cocoyam leaves, gives it different organoleptic characteristics from those of commercial cheeses and contributes to generate a typical cheese with attributes valued in the region where it is produced.

Key words: Criollo cheese, Oral history, Genealogical method, Technological trajectory, Craftsmanship, Typicality.

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Introduction

Food is an important component of social identity, in a world undergoing rapid and profound changes; therefore, it is important to highlight its role, since it constitutes an essential identity reference[1]. Culinary specialties have become a bond enabling cultural rapprochement, insofar as they have become elements that speak of the life of peoples and territories. Gastronomy can therefore become an element of sustainability that improves the quality of life of the population that produces, consumes and markets them[2]. In this sense, what people eat and how they eat can become a dynamic element of their culture, making it possible to establish spatial-temporal and formal patterns, which in the long run become not only eating habits but also a food technology culture[3].

Society faces a complex scenario, due to the enormous symbolic and material wealth implicit in the food diversity and local gastronomy of the peoples, an aspect that needs to be made visible, since it not only represents an invaluable heritage, but also forms part of the collective memory of society as a whole[4].

The industrial food transformation process generates a change in consumption patterns, as it replaces everyday foods with the indiscriminate use of highly processed ingredients. This is also the case of cheeses, whose presence throughout history bears witness to the ability of the locals to create a gastronomic product with unique characteristics that render it distinct from those of other regions. However, when inserted into the domain of mass production,

such products tend to lose their territorial links, which had generated special attributes from a social point of view[5,6].

In this sense, the mass production of imitation cheeses (those made with milk substitutes) distorts the vision that the peoples had preserved of their attributes of genuineness and community authenticity, by affecting their culinary status. In other words, the availability of new types of cheese whose intrinsic components have little relationship with the original procedures, utensils and ingredients that gave traditionally produced cheeses their communal meaning, the door is opened to their loss, as well as to that of the tacit (territorial, cultural and functional) knowledge implicit in their production[7,8]. In other words, in this process, some cheeses have gradually lost part of their know-how; this, in fact, represents the disappearance of a technological culture recreated over centuries, which is no small thing. Given that local rural development is usually based on a productive activity of reference, the concept of local agro-food product[9], defined as that which emerges from the knowledge and resources that constitute a localized agro-food system (LAFS)[10], is very important for this research[9].

Therefore, massive industrialization and the growing production of substitute products for original foods has become a determining factor in the generation of a consumer who is largely unaware of the nutritional and organoleptic properties contained, for example, in genuine cheeses. This translates, in fact, into an insufficient appreciation of the value contained in the traditional products, which affects their presence in high-consumption markets, almost always confining them to very specific local areas[8,11].

In Mexico, there are about 40 varieties identified as genuine artisanal cheeses which are facing a gradual disappearance[12]. One of these is the criollo cheese in cocoyam leaf, a little known product that is made in the high mountains of the state of Hidalgo. It is a fresh cheese with a soft consistency, sold directly to the consumer and produced only in this region, where the characteristics of the territory, the type of livestock and the transgenerational know-how render it unique. For this reason, the objective of this article was to provide qualitative information on this cheese, in order to contribute to disseminate its presence and make possible its appreciation and permanence as a local gastronomic heritage.

Material and methods

Data collection strategies and analysis tools

The field research was developed during the summer of 2018. A structured survey was applied to 18 cheese producers, covering the whole of the people engaged in this activity, who reside in the Sierra Alta of the state of Hidalgo, Mexico, in the municipalities of Molango de Escamilla and Lolotla (Figure 1). The purpose of the questionnaire was to identify the basic external elements that determine the preservation or not of this cheese in the region. Variables used were i) gender, ii) age, iii) schooling of the producers, iv) scale, v) use of certain technologies, vi) existence of other associated activities (milk production, marketing, support management). Based on the above, it was possible to identify that gender, scale of production and use of certain technology were the three main variables required to understand the cheese system.

Figure 1: Municipalities where criollo cheese in cocoyam leaf is produced

Semi-structured focused interviews with key people —including the oldest producers and the marketers— were carried out. Notably, this type of qualitative technique was selected because it turned out to be adequate, given the particular interest in deepening the understanding of certain aspects[13]. In this specific case, the questions addressed the following aspects: i) origin of the production of cheese in the region, ii) existence or inexistence of family ties between those who have preserved its production; iii) channels or means through which the know-how was transferred and preserved; iv) technological

elements of the know-how (knowledge, traditions, equipment, instruments, and raw materials) preserved or disappeared through time; v) dynamics and links between those elements that make up the system; vi) levels of stability or instability among the various basic elements of cheese production. In this case, the presence or absence of technological changes over time, an aspect that was considered to confer additional value to the product, was considered a stability or instability factor.

The subjects of the survey and interviewees were selected using the non-probabilistic sampling method known as "exponential discriminative snowball sampling"[14], which consists in asking the residents of the location who the individuals who have special knowledge of the phenomenon to be researched are. A pool of resources rich in information is thus collected along the way[15]. Finally, all 18 cheese producers were registered in a census.

One of the methodological tools employed was oral history, which offers a simple, dynamic alternative for identifying the symbolic value of certain agro-food products for the inhabitants of the communities and determining whether these are to be regarded as an ancestral legacy[16]. In this case, it was used to identify the origin of the criollo cheese in cocoyam leaf through the memory and stories of the producers (cocoyam belongs to the genus *Xanthosoma*; it is commonly known as mafaffa, otoe, malanga, or cocoyam). The genealogical method was also utilized to inquire about the cheese-producing expertise, showing how this is passed on from one generation of producer families to another. This information was systematized and graphically represented in genealogies[17].

This method is generally used in anthropological research, as it allows understanding a wide range of aspects (family systems, filiation and inheritance laws and norms, migration, magic, religion, customs and traditions), all of which are linked to social and cultural, individual or group behaviors in certain societal environments. Likewise, it is utilized for tracing kinship relationships established within a group, as well as for reconstructing the community and family history of which a traditional know-how is part. It is also used when a more detailed analysis of the production systems is required. It is particularly helpful for studying the development of artisanal cheese production, as in the present case[16].

The technological trajectory approach was another methodological tool utilized with the aim of identifying the technological changes that have been incorporated into the production units over time, in order to verify the degree of persistence of the "technological tradition" in the manufacture of agro-food products through the assessment of their effects on the preservation or loss of their authenticity[18]. The changes in the stages of the process and the use of raw materials and equipment for the production of criollo cheese were verified. In order to identify the technological trajectory of the cheese, the variables processed volume of milk, use of raw materials and equipment for the manufacture, use of

raw materials related to the production (fluid and/or powdered milk, animal and synthetic rennet, calcium chloride), and quality testing were considered. Table 1 shows the relationships between all the utilized variables and tools.

Table 1: Utilized variables and tools

Variable	**Tool**
General data	
Gender	Survey, focused interview
Age	Survey, focused interview
Schooling	Survey, focused interview
Family members engaged in the activity	Focused interview
Oral history	
Antiquity of the cheese	Focused interview
First producer	Focused interview
Context of the event	Focused interview
How the know-how was disseminated	Focused interview
Genealogy	
Oldest family member engaged in the activity	Focused interview
Acquaintences (not family members) engaged in the activity	Focused interview
Who the producer learned from	Focused interview
To whom the producer taught	Focused interview
Years devoted to the activity	Survey, focused interview
Technological trajectory	
Use of de certain technology	Survey
Processed volumen of milk	Survey
Machinery, equipment, instruments for the manufacture process	Survey
Use of raw materials	Survey
Quality tests	
Production scale	Survey
Changes in the manufacture process	Survey
Commercialization	
Who sells the cheese	Survey, focused interview
To whom it is sold	Survey, focused interview
Packaging	Survey
Point of sale	Survey
Distance from the point of sale	Survey

Results and discussion

Origin of the criollo cheese in cocoyam leaf

This cheese was first produced in several communities of the municipalities of Molango and Lolotla approximately one century ago. The etymological interpretation of the word Molango is "Place of *mole*", a name with Nahuatl roots given to this location by the Aztecs when they conquered the region. Lolotla, also a Nahuatl word, means "rock surrounded by thread", an expression that refers to the topography of the place, which consists of hills, on which most dwellings stand. According to the results obtained from oral history, the criollo cheese in cocoyam leaf was first produced around the year 1916 by the Melo Quijano family. In his narrative of the facts, one of its descendants, Mr. Ángelo Crescenciano Melo Castillo, recalls that his grandparents owned a large piece of land, and they had approximately 130 heads of cattle, which, then as now, were bred on the mountain (a natural elevation covered with vegetation).

For the milking, the laborers used to walk uphill, carrying a *chápal* —a clay pot with a capacity of up to 20 L—, which served for storing the milk during its transfer. In order not to get hurt due to its weight, they used to carry it on their head with the aid of an interwoven piece of cloth. Once the milk had been collected, they took it to the kitchen of *Doña* Rafaela Pedraza Bautista, wife of Delfino Melo Quijano, the owner of the farm. After the fresh milk had been consumed or sold, the remainder was used for making the criollo cheese. In the kitchen, the milk was emptied into another earthenware *chápal* and sieved through a piece of cloth to prevent the proliferation of extraneous agents that might spoil or transmit an unpleasant taste to the cheese. If the milk was still warm, they added natural rennet; otherwise, they heated it on the firewood stove until it reached a temperature of approximately 37 or 38 °C, after which the rennet was added, and the mixture was let stand. Once the curd was formed, it was cut with a *chamolito* —a stick in the shape of a cross—, and then gradually separated within the same *chápal*, until a ball was formed; this was then drawn and placed on a piece of cloth, and the process was repeated until all the curd was on cloth. Once the curd was separated from the whey, it was ground on the *metate*, adding salt little by little. Subsequently, the pieces were formed in wooden molds, where they were drained on a tilted plank, and each piece was then wrapped in a leaf of cocoyam (this plant abounds in the region), which contributed to its conservation and to the preservation of its organoleptic qualities.

Characteristics of the local cheese-producing system

The marketing of the cheese

The cheese was sold directly to the consumer and marketed in some neighboring towns such as Zacualtipán, Tamazunchale, San Felipe, Huitepec, and Ixtlahuaco. It was so much in demand that, according to informants, it took longer to arrive at the site than to be sold; in addition to this cheese, the informants offered milk and cottage cheese. Some products, such as cheese, have been documented to sell better if they have consumer recognition[19]. Furthermore, confidence in the quality of the food is established, among other parameters, by the personal relationships between the producer-seller and the consumer, and in this case, word-of-mouth recommendations, good or bad, contribute to build the prestige of the artisan cheese maker. Therefore, in local markets, consumer loyalty, built through constancy and by taking care of everything that makes up a harmonious relationship and for long periods, is important for the trader; however, it can be quickly lost. At this level, it is important that both parties involved in the transaction consider that they benefit from it.

As was the case across the country at that time, horses, donkeys or mules were used to transport the products. Criollo cheese and cottage cheese were transported in "*chiquigüites*", a word of Nahuatl origin, which refers to wicker baskets of different sizes, made of scraped sticks, while milk was transported in *chápales*. Not all of the cheese produced was sent to the market; a considerable part was sold at home. Similarly, in the case of the Serrano cheese from Campos da Cima do Serra (Brazil), in the mid-18th century, mule caravans transported the cheese from the locality where it was produced to the neighboring state of Santa Catarina, where it was marketed and from where the taste for the product spread[20].

Similar to this form of commercialization was that of Cotija cheese, which was transported by muleteers, as a product and also as food, from western Mexico to the southeast of the country; it is even mentioned that it reached some parts of Central America, resulting in the present-day production of a Cotija-style cheese in the state of Chiapas. The result of the transmission of know-how and the migration of producers derived from these initial exchanges.

In the case of cocoyam leaf cheese, the form of payment was diverse, in some cases it was made by monetary transaction, in others, by barter, or even in exchange for some work done by the purchaser. Because it was produced domestically and by hand, the quantity of

orders was small —20 pieces at most—, which shows to not only its small scale of production, but also the fact that there were people who bought the entire production, which highlights the quality of the product. Much the same occurs in certain localities near the Italian Mediterranean, where an important quantity of artisanal cheeses with a unique and peculiar taste are manufactured as farmhouse cheeses, from raw milk[21]. In the same sense, some authors mention that this is due, especially, to the fact that when the unique characteristics of a product, such as cheese, satisfy the customer, demand tends to remain loyal to the product while it also grows[22].

The need to value the cheese in cocoyam leaf

At the time of the research, the sale of raw milk in the region was minimal. Cheese makers pointed out that in 1996, around the same time, the introduction of dairy products in cartons into local stores reduced the demand for raw milk until it disappeared. Since then, all the milk produced in these communities is processed into cheese, which continues to be well known and accepted in the area. This is supported, as in the case of cocoyam leaf cheese, by the fact that artisanal cheeses have strong community and local roots, since their production is based, from their origins, on the use of indigenous natural and social resources, facilitating their integration into the local gastronomic culture.

When the problem of artisanal cheeses transcends the local level, due to the different phenomena that have occurred in the rural environment —such as loss of population due to migration, and, consequently, the risk of the disappearance of traditional knowledge linked to know-how, the increase in poverty rates, etc.—, it becomes necessary to value these traditional products, because they contribute to the development of the communities and the cheese makers, and ensure their permanence in the activity. Traditional foods are consumed frequently or in association with celebrations or specific times of the year, such as the rainy season, for example. Therefore, they are usually handed down from generation to generation. They are carefully prepared in a specific way (know-how), according to the gastronomic heritage, with little or no processing/manufacturing; differentiated and known for their sensory properties, and associated with a specific locality, region or country, and therefore deserve to be preserved or recovered, depending on their situation[23].

Finally, an important aspect in the territorial appraisal of artisanal cheeses is the implementation of protocols in the cheese factories to ensure the sanitary quality of the product, as well as other types of attributes such as organoleptic attributes, which are the strengths of this type of food. On the other hand, adequate management and conservation of local natural resources must be guaranteed, as well as incentives for the participation of producers to attain the abovementioned goals[11]. An example of this is related to the

production of Cotija cheese in Mexico: its producers created the project "Potentiation of the cultural heritage of the Sierra de Jalmich", which made it possible to involve all the actors and make the improvement of its food and craft quality coincide with its recovery as a collective heritage (economic, social and cultural)[24]. Another case is that of the *queso bola* (ball cheese) of Ocosingo, Chiapas, Mexico, where the producers were able to temporarily obtain a collective trademark (CTM), which gave external recognition to the local cheese culture for a considerable period of time[25].

However, revaluing the local cheese culture requires developing several actions, most of them collective, which producers often fail to concretize, such as organizing themselves in order to attain the collective good and thus improve aspects such as the sanitary quality of the cheese and its production process, its quality control and product certification, as well as the development of better market options. It must be considered that a geographical indication (GI), or any other seal of territorial anchorage, has no value in itself, but is based on the collective action of producers and other related actors, who influence the development of traditional, genuine and social identity cheeses[25].

It is worth noting that consumers do not always value the intangible factors (recognition, culture) that influence their consumption. Therefore, the cultural richness of artisanal cheeses is an important aspect that should be reclaimed in order to generate greater appreciation by the consumer[26]. The revaluation of local products has become a strategy that is closely related to what many authors call local development, presenting a conception of development as something generated from local capacities and resources[10].

The transmission of the know-how of the manufacture of criollo cheese in cocoyam leaf across generations

Based on various accounts of the descendants of Mr. Delfino Melo Quijano, a pattern was generated to locate the origin of the cocoyam leaf cheese, as well as the way in which the know-how was transmitted from one generation to another. Thus, it was possible to interconnect the transfer of knowledge with the elaboration of the product. According to the oral narration, "Since Don Delfino and his wife, Rafaela Pedraza, had a large number of cattle heads, they decided to produce cheese with the remainder that was left over after the sale of the raw milk". Thus, "while Delfino and some employees took care of the cows and the milking, Rafaela made cheese at home, supported by some neighbors, since, as is tradition, along with her domestic activities and with caring for her five children —Gonzalo, Casimiro, Pablo, Baldomero, and Sofía—, Rafaela was also responsible for the production of cheese; through this activity she also sought to make a little more money".

An undeniable fact is that "over time, not only the women of the family engaged in cheese production but also the men". The know-how was passed on to everyone. However, only a few of the sons continued to engage in the activity.

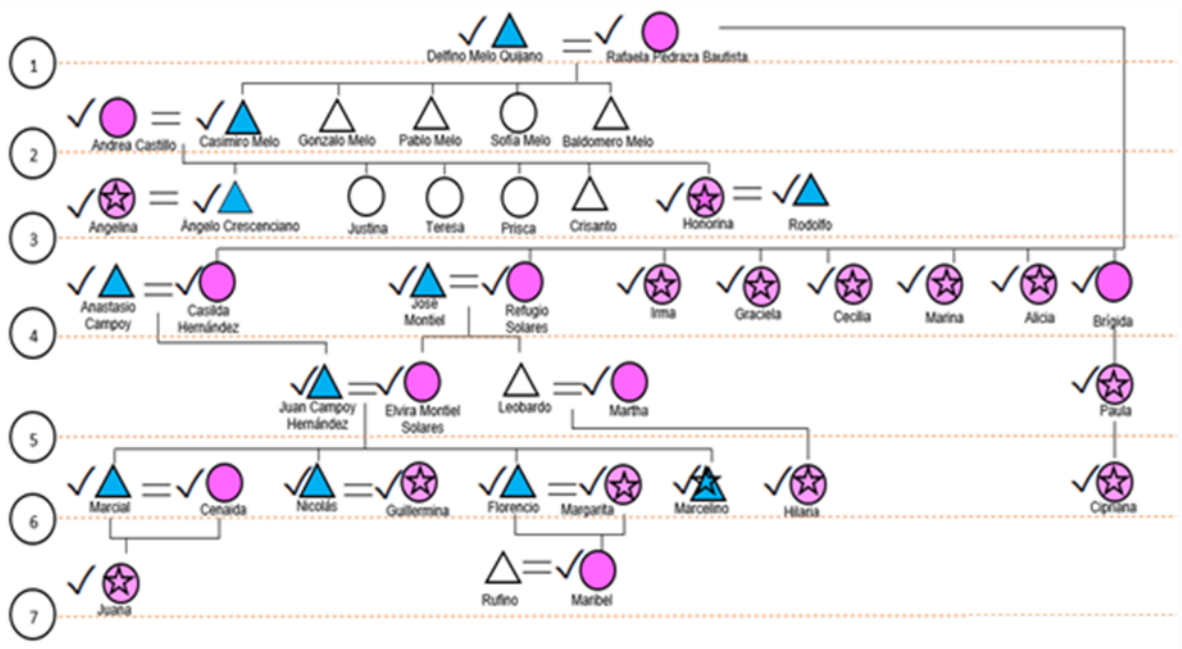
Andrea Castillo, wife of Casimiro Melo Pedraza, learned the cheese-making technique from her mother-in-law; with the passage of time, she became an important collaborator in the cheese making process. Six children were born to the Melo Castillo couple: two men and four women, whose names were Ángelo Crescenciano, Crisanto, Justina, Teresa, Prisca, and Honorina. It was Ángelo Crecenciano and his wife, Angelina Díaz Hernández, who rescued the cheese-making know-how; their two daughters, Griselda and Susana, who also learned the cheese-making process in their childhood, inherited this. Honorina, the youngest daughter of Casimiro Melo Pedraza and Andrea Castillo, married Rodolfo García Díaz, a small local farmer who not only continues to provide the milk —the basis for the production of cheese—, but has also encouraged Honorina to keep make it to the present day. This knowledge has been passed on to their children, Alejandro and María Concepción, who, although still young, have learned the technique and will surely be the ones to continue the family cheese-making tradition over time.

It should be noted that, in this region, most of the current cheese makers continue to preserve the traditional way in which the original family produced this type of cheese. Such is the case of Paula and Graciela Hernández, Cipriana López, Irma Reyes, Cecilia Apolonio, Marina Bustos, Alicia and Hilaria Montiel, and the Campoy family, who in their testimony mention that their parents or grandparents worked closely with Rafaela Pedraza in its manufacture. Thus, it may be said that the knowledge and technique for manufacturing criollo cheese in cocoyam leaf has gone beyond the family circle that gave rise to it and has become a community asset. Figure 2 depicts the symbols used in the genealogical map that integrates the actors that have intervened —starting with the Melo Pedraza family— in the preservation of the knowledge and technique for the production of criollo cheese in cocoyam leaf in this region, and Figure 3 shows the genealogy followed for the diffusion of the knowledge involved in the production of criollo cheese by those who learned it directly from that family.

Figure 2: Symbols used in the genealogical map

	Man
	Woman
	Person who recovers the cheese-making tradition
✓	Person who possesses cheese-making knowledge
=	Marital relationship
☆	Current producers of criollo cheese
	Actor level within the genealogical map

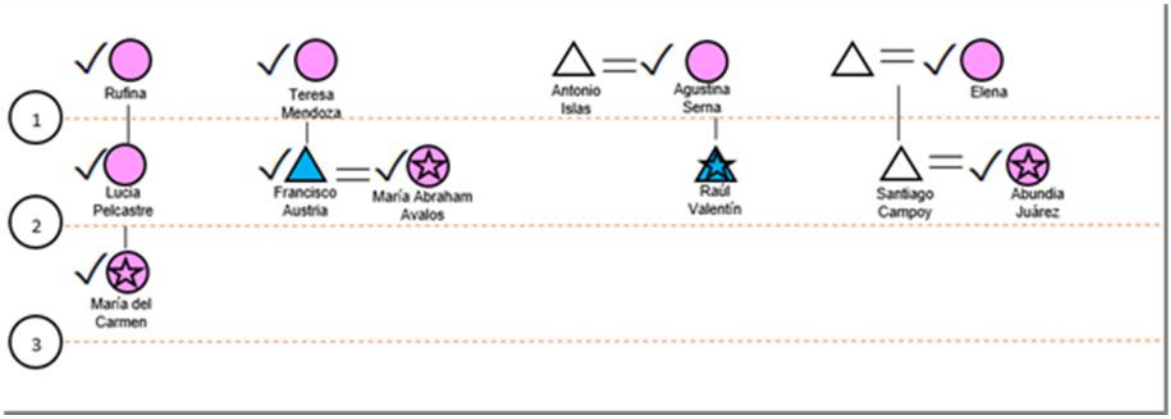
Figure 3: Genealogy of the diffusion of the knowledge of the manufacture of criollo cheese



There are other pathways, not directly related to the Melo Quijano family, through which the expertise of cheese making was passed on. This fact can be interpreted as an indication that this culinary heritage has very precise internal origins, as well as external ramifications that render it a part of a broader geographic system[27,28]. Such is the case of Mrs. María del Carmen Bustos, who accumulates more than 40 yr of experience in the activity, taught to

her by her mother, Lucía Pelcastre, who in turn learned it from her grandmother, Rufina Apolonio, and they both engaged in it together until the death of the latter. A similar case is that of Mrs. María Abraham Ávalos, who has been making this cheese for 37 ys, having acquired this knowledge from her mother-in-law, Teresa Mendoza. Similarly, Raúl Valentín has been making this cheese for five years with a technique taught to him by his grandmother Agustina Serna. In addition, Abundia Juárez acquired the knowledge from her mother, and both have been making cheese for thirty years. Figure 4 shows the genealogical map of these cheesemakers.

Figure 4: Genealogy of the families where the transfer of knowledge of criollo cheese production could not be established



As can be seen from the testimonies provided, the participation of women in the transmission of know-how for the manufacture of this product and in the permanence of the cheese-making practice in this region has been predominant. However, at the same time, it is part of a family reproduction strategy, since the whole family is involved in its manufacture. Thus, there is a division of activities: the father is in charge of milk production and cow maintenance; the mother makes and sells the cheese and spreads the know-how; the sons and daughters collaborate in its production and distribution; in other words, the cocoyam leaf criollo cheese not only has a territorial flavor, but also forms part of a family culture that transcends the domestic sphere and is a geographical factor of community identification.

In this manner, the fact that the family income is complemented by integrating the mother's activities with the cheese production, all with the active support of the family members, is a factor that has helped to sustain cheese production. Previous research indicates that the domestic structure behind cheese production in small family units is the result of adjustments to the family division of labor, which is modified as women have a greater economic participation in raising an income, also resulting in a substantial increase of her production[29]. In this case, cheese making is a paradigmatic example of the transition process from a traditional rural society to the new rurality[30], an adaptation to new

scenarios that is not uniform and that, for the less favored regions or activities, represents a challenge, with more limitations than resources to overcome it.

Likewise, a previous study of a case of artisanal cheese production in Herzegovina concluded that women play a very important role in the appraisal of typical products, which guarantees not only their recognition, protection and economic well-being, but also generates a more integrated model in the development of the region of origin, showing evident advantages of improvement and tangible benefits (employment growth, higher income, etc.)[31]. In other regions of Mexico, family milk production and the tradition of cheese making have sustained the local development of a delimited territory. In these areas, the articulation of the family milk system becomes a specific productive resource, linked to the domestic, local and regional manufacture of cheese, where know-how becomes a window of opportunity, with regional fame and reputation[32]. This articulation is important because it gives viability to rural households, incorporating the various members of the family into the cheese-making activity, some of them part-time, and allowing pluriactivity, which can be essential for its operation.

In particular, the preservation of the artisanal character of a product consists in a production process and characteristics that are defined according to local knowledge, and even the culinary practices inherited by each family, and it represent an advantage throughout the chain to final consumption[33]: Trust relationships are thereby established between the producer (or marketer) and the consumer that can last for a long time, and the products are valued, recommended and promoted by word of mouth by their buyers, extolling their qualities. In the particular case of the Chiapas cream cheese, its artisanal production is valued; it is based on the origin, the manufacture process, the production equipment, the livestock used (for a dual purpose) and their diet, the know-how of cheese (passed down through generations), etc.. All these elements ultimately contribute to impart the unique characteristics of the cheese, such as its genuineness and typicality. Cheesemakers value the process because it allows them to reproduce their know-how, passed down through history; it also enables them to be part of a group or guild, where knowledge is shared and improved[34].

In this sense, the know-how of artisanal products is associated with empirical knowledge that is disseminated in the form of non-formal education processes, which are scarcely valued by public institutions. This situation is associated with the production of origin-related quality products, upon which natural climatic conditions confer distinctive characteristics that render them recognizable and valued by the consumers[10]. In this manner, the increasing potential of this type of genuine products is closely linked to aspects such as geographical and cultural diversity and allows the creation of a great variety of foods and ways of preparing them in local and regional gastronomy[35].

Technological trajectory in the process of making criollo cheese in cocoyam leaf

The study of typical food products of Italy as a strategy to strengthen gastronomic tourism considers that the degree of craftsmanship in the making of a local product is directly linked to the relationship between a territory and its original productions and that this relationship contributes to enhancing the quality of the product, due to the care taken by the producers in the selection of the ingredients[36]. This also allows the genuine product to retain its place as part of a cultural heritage, whereby a strong connection between the genuine product and the development of an appreciative community awareness is established.

Criollo cheese in cocoyam leaf emerged, like others, as a strategy to avoid wasting seasonal milk surpluses. Its manufacturing process today is still very similar to the original, only some slight changes have been incorporated into it (Table 2). Most of the genuine Mexican cheeses were first made at ranches as a means to avoid wasting and preserve surplus milk during the rainy season.

Table 2: Technological trajectory of the production system of criollo cheese in cocoyam leaf

Year	Manufacture technology	Image
1916	Date established as the date of origin of this cheese.	
1917	During this year, the designation of the procedure for the production of this cheese was completed. It included the following aspects: • Fluid cow's milk was used in the production process • The milk was curdled in clay *chápales*, which had a capacity of 20 liters; the *chamolito*, a stick instrument similar to a spoon, was used for this procedure. • The temperature was determined based on observation and touch. • The curd grinding process was carried out on a *metate*, where coarse salt was added to the curd.	

Year	Manufacture technology	Image
	• The draining procedure consisted of placing the ground cheese on a cocoyam leaf and letting it sit there for the time necessary for it to acquire consistency and flavor. • Once this was accomplished, the cheese was wrapped in the cocoyam leaf, which allowed its subsequent transportation and sale. • The cheese making process did not include the use of palm leaf baskets or metal containers	
1994	Plastic demijohns and aluminum buckets were first introduced into the production of cheese, replacing the use of the *chápal*.	
1997	Pieces of cloth or cloth sacks were first used to facilitate the draining of the whey.	
1998	The *chamolito* was replaced by the aluminum spoon, although some cheesemakers (e.g. Angelina Díaz and Hilaria Apolonio) still use it today.	
1999	The use of wood and PVC molds was introduced.	
2012	The use of natural rennet was substituted by commercial rennet (only by two producers).	
2013	Cheese maker Raúl Valentín replaced the cocoyam leaf with plastic bags, a situation that did not prosper among the other producers.	
2017	The use of fluid cow's milk and the method of curdling, salting and grinding are still used in the traditional production process of this cheese. So is the packaging of the final product in the cocoyam leaf.	

Year	Manufacture technology	Image
	Milk pasteurization has not been a method adopted by cheesemakers, since this procedure adds costs to the product, in addition to modifying the consistency and flavor of the cheese.	

Conclusions and implications

The territorial anchorage (understood as the link that food products have with the place where they are produced) is essential to understand and sustain an artisanal system such as the one presented herein, since this connection is transformed over time into a culinary tradition of which the people feel very proud. The importance of criollo cheese in cocoyam leaf lies precisely in that it is a food with a history —the result of an expertise that has been passed down through generations of family and acquaintances. One way to contribute to its diffusion and appraisal as a local gastronomic heritage would be to mention to the consumer that this cheese has preserved a highly artisanal character over time and that the peculiarities it has acquired from the physical and cultural environment are expressed in its characteristic flavor, higher fat content, and different color and consistency, in addition to its being wrapped in cocoyam leaf —all of which confer different organoleptic characteristics upon it, compared to the so-called commercial cheeses.

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