

ORIGIN AND DEVELOPMENT OF THE
AGRO-INDUSTRY OF MEZCAL SPIRITS
CALLED TEQUILA

Miguel Claudio Jiménez Vizcarra.
Benemérita Sociedad de Geografía y Estadística
del Estado de Jalisco.

Traduction:
Dr. Michael W. Mathes.

Guadalajara 2008

ORIGIN AND DEVELOPMENT OF THE
AGRO-INDUSTRY OF MESCAL SPIRITS
CALLED TEQUILA

Miguel Claudio Jiménez Vizcarra.

A BRIEF REVIEW:

It is high time to put a halt to the legend that Marqués Pedro Sánchez de Tagle and the Marqués de Altamira, two distinct personages, the initiators, beginning in 1600, of the cultivation of a variety of maguey called mescal in the Tequila valley, and thereby the inventors of the spirits originally called *mezcal wine* and now known as Tequila.

All of this assertion is false because the first Sánchez de Tagle to arrive in America was don Luis Sánchez de Tagle who came in 1695. Don Pedro Sánchez de Tagle, who was not the Marqués de Altamira, bought the hacienda of *Cuisillos* in the Valley of Ameca in 1702 (1). The first Marqués de Altamira, don Luis Sánchez de Tagle, the father-in-law of don Pedro, did not receive that title until 1704 (2). Finally, when don Juan Rodríguez de Albuérne, Marqués Consort of Altamira, received the hacienda of *Cuisillos* in dowry in 1730 (3), in the inventory made at the time there were no mezcal plants nor a distillery [*taberna*] listed, although sugarcane and a sugar mill were. None of these people could have been in the Valley of Tequila in 1600, nor planted mezcal there, nor much the less invented *mezcal wine* in a distillery installed at that time in the hacienda of *Cuisillos*, as has been boldly stated. Thus it is that the romantic legend that makes the father of Tequila a “Marqués” in 1600, of whom there are reputed portraits, has no substance.

The oldest report in which we are made aware of the importance of maguey by the natives who inhabited what became known as New Galicia and of how the *pencas* [heart stalks] of maguey called mezcal were cooked in a barbecue [*barbacoa*] is the “Report of the trip made by don Francisco de Sandoval Acaztlí, Chief and Lord, former native of the town of Tlalmanalco, province of Chalco, with the Lord Viceroy don

Antonio de Mendoza when he went to conquer and pacify the Chichimeca Indians of Xuchipila” of the year 1541, published by don Joaquín García Icazbalceta in his *Documentos para la Historia de México* (4). This report predates any of the mentions of maguey and mezcal made by doctor don Francisco Hernández (1574), published by Nardo Antonio Recchi (1628), by Fray Bernardino de Sahagún (1547), and by Father José de Acosta (1588). It is, however, possible to suppose that all of these authors either knew the “Report” or were in contact with those chieftans and Indian troops that accompanied don Antonio de Mendoza to the Mixtón War in 1541, and who, upon returning to their homes spoke of the maguey and mezcal of the lands of New Galicia.

In this “Report” the chief of Tlalmanalco mentions the destruction of the maguey of the vanquished (unfortunately the Náhuatl text is unknown to determine if in it the word used is *mezcalt* and not maguey), and he also narrates how, in the lands of Tequila, those of “San Juan” (this could mean none other than San Juan Bautista de Amatitán) provided him with corn and beans for sustenance, and that in these lands there was a fiesta in which the victors and the vanquished danced and ate a calf. This coincides with that stated by Fray Antonio Tello in his *Crónica* (5) that some cow’s legs were eaten in Amatitán upon returning from the reconnaissance made toward “Apanic”. It is clear in the “Relation” of Acazitli as to their eating *pencas* of mezcal cooked in a barbecue there and, that in the same place, they delivered five arrows wrapped in a deer skin to Mendoza, and stated to him: “...Here we bring the deceiver”, and when Mendoza began to unwrap them and broke them into pieces he said to them: “What is this that deceives you? Are you being cautious that if you should shoot arrows at something with them, you are certain of what you are shooting at?”

Although López Portillo y Weber states in his work *La Rebelión de Nueva Galicia* (6) that it was the chief of Tequila who delivered the peyote fetish of the shaman to the viceroy, I believe that the delivery of the fetish in those lands must be understood in the sense that those who surrendered were the true planners of the rebellion and that it would be associated with mescal and not with peyote. As is stated by Tello in his chronicle of the Mixtón uprising: “it was a fearful thing that they took in abuse in a

dance...in that dance they placed a gourd and danced around it, and the the gourd was between them, and a strong wind arising it carried the gourd through the air and some old witches said to them that they should arise because, as the wind had lifted that gourd, with the same force they would eject the Spanish from their lands, and they should not doubt of it because it was certain, and that they should enter into battle with the Spanish, and being in battle, a wind would arise and would carry them from the land with a great dust cloud, and there would not be a Spaniard remaining alive, and these people celebrated this with great dances and drunkenness” (7). I do not doubt that the gourd contained *mezcal* wine and not peyote, because from a gourd one does not eat but drinks, and peyote is eaten and not drunk, while on the other hand, *mezcal* is drunk.

After the “Relation” of Acazitli, Domingo Lázaro de Arregui in his “Descripción de la New Galicia”, dated December 24, 1621 makes reference to “Mezcal” as one of the plants of the region of New Galicia:

“And for the poverty and laziness of the inhabitants of these maritime lands Our Lord provided many wild things adapted to human sustenance such as bananas, mezcal, plums, xocohuistle [cactus fruit], and other berries with which the natives sustain themselves during most of the year;...” (8).

It is also Domingo Lázaro de Arregui who, in the same work, mentions the beverage that the natives of New Galicia make from that *mezcal*, cooking it, fermenting it, and distilling it:

“The mezcal is very similar to the maguey and its root and the base of the center stalk are eaten roasted, and from these same, squeezing them when roasted, that they extract a must from which they make wine from cactus sap, distilling it (9) clearer than water and stronger than spirits and of that flavor.” (10).

To support the statement of Domingo Lázaro de Arregui as to the beverage manufactured by the natives being clearer than water, it is necessary that they would have distilled the fermented mass that is not, in itself, drinkable, and also realized a double distillation, since with a single distillation the beverage would be cloudy. This double

distillation was possible prior to the conquest by using clay pots, since a metal still was not necessary to do so. Arregui, when he describes the manner in which the natives made the beverage refers to a method, that of distillation, and not of equipment such as a still. Furthermore, it would not be necessary to make the beverage in large quantities since it was made for the occasions of fiestas and ceremonies. Matías de la Mota Padilla (11), in the eighteenth century states that the natives used mezcál wine in their “retreats” (12).

The “Relation” of the chief of Tlalmanalco and an analysis of the statements of Lázaro de Arregui that contain documentary sources and the earliest physical evidence found to date, demonstrate the knowledge that the natives held regarding the maguey plant called mezcál and the manner in which they developed its cultivation to use it to manufacture the spirit given the name *mezcál wine*, thus creating, with local materials, a technological process to obtain the beverage.

The manner in which the natives domesticated maguey mezcál could only have occurred through centuries and generations, because it must be recalled that the same result is not obtained by allowing the plant to thrust out its stalk as occurs after the third year when it matures by flowering and then dies. Cutting the flowering stalk once it appears to allow the plant to “*season*”, as opposed to mature, signifies that it is appropriate for finishing that occurs beyond the fifth year, and it can then be used to manufacture *mezcál wine*. Thus, if an individual during his lifetime may plant, observe, and harvest at most four or five cycles of mezcál until they are “*seasoned*” he must be from a sedentary group, dedicated to agricultural activities. By remaining in the same place he will have observed and cultivated the mezcál, developing a technique for its cultivation to employ it in the manufacture of the spirit that is called *mezcál wine* and now Tequila.

It was the Indians who developed that system of cultivation consistent in impeding the maturation of the plant by cutting its central stalk [*quióte*] as soon as it appeared, so that then the center of the stalk and the base of the leaves would augment the richness of their sugars. If it were not cut, the growth of the stalk until it flowered would

halt the enrichment of the sugars, making the plant useless for the manufacture of the beverage.

Once the central stalk or *quiate* is cut and the maturation of the plant is halted, it was necessary to wait until it entered into “*season*” following its fifth year of life. It was not necessary for the plant to reach flowering stage to be able to obtain seed to perpetuate the species, since mezcal generates offshoots, “children”, that, separated from the mother plant, can be replanted, and thus a new plant obtained.

With the agricultural technique developed for the proposed end, the Indians invented a technical process that was begun with the “trimming of the leaves” [jimar] of the mescal plant in season, that consisted in removing the extensions of the leaves so that the center of the stalk or heart and the base of the leaves remained. This was then cut into pieces and cooked, and then crushed to obtain a juice that could be fermented. On termination of the fermentation, the product was distilled twice, thus producing a spirit “clearer than water” that, as we know, by 1637 the Spanish had already named *mezcal wine*.

All of these stages, techniques, and processes, both agricultural and industrial, were developed by Indians by studying, adjusting, and transforming natural elements and materials to obtain a refined, sophisticated, and pure product, equal or better than the best European spirits and liquors.

If there are no antecedents of *mezcal wine* prior to 1621 it is because of its being an Indian beverage, and the conquistadores did not give it greater attention other than by prohibiting it. We know of massive destruction of maguey referred to in the “Relation” of don Francisco Sandoval Acaztili; and how, as much by civil authorities as by religious, with the exception of white pulque, all of the beverages manufactured by the natives were prohibited and “counterindicated”, causing the constant death and drunkenness of the “miserable” Indians. They were prohibited from its manufacture and consumption under the pretext of caring for their health and soul, although certainly also protecting the spirits

of Castile and their manufacturers in Spain, the commerce in pulque, and the taxes set by the crown.

Mezcal wine was another of the prohibited beverages that was tolerated only in New Galicia under the pretext that, by permitting it, the Indians would not become extinct. Thus, after 1637, the authorities began to recognize *mezcal wine*. In that year the then President of the Royal Court of Guadalajara, don Juan de Canseco y Quiñones, determined that, for the first time in Guadalajara, a monopoly outlet [*estanco*] (13) for *mezcal wine* would be established so that the product could be legally sold and consumed, and at the same time obtain an economic benefit, although only for the city to whose treasury [*propios*] (14) the sales of the *estanco* were directed.

Doña Mariana de Austria, Governing Regent Queen of Spain, being appraised of the beverage manufactured by the Indians called *vino mezcal*, and under the pretext that there was no other solution for its survival other than by permitting it, given that it was free from sales tax [*alcabala*] (15) because it was a native product, authorized by Royal Order of 1673 (16) that *mezcal wine* could be commercially sold in Guadalajara through an *estanco* that would be auctioned to the highest bidder, and that the payment would be destined for the introduction of water into the city. In the same *estanco* coconut wine would also be sold, making it clear that in Spain they did not have the slightest idea that this involved two totally different beverages, and that *mezcal wine* was a spirit, since had they known this, perhaps they would have prohibited it.

This authorization by doña Mariana de Austria continued to be extended after 1673 by successive monarchs, and with the passage of time led to the spread of the sale of *mezcal wine*. After 1750 its sale was not only permitted in Guadalajara, but throughout the jurisdiction of New Galicia through concession contracts [*asientos*].

At that time the Indian community of San Juan Bautista de Tuspan, jurisdiction of Zapotlán in the Diocese of Michoacán, had also begun to plant *mezcal* and manufacture *mezcal wine* to supply the *estanco* in Guadalajara. Nevertheless, they had to confront

prohibition with excommunication and the placing of an anathema by the bishop of the diocese against *mezcal wine* as a prohibited beverage. This opened a legal process between these Indians and their bishop that reached the attention of the monarch.

Having heard the authorities and the Supreme Council of the Indies having issued an opinion, in 1767 Carlos III ordered that the beverage should be prohibited. However, in a secret instruction, he left the matter to the judgment of the Viceroy Marqués de Croix to decide what he considered appropriate for the good of public order; the disturbances caused by the expulsion of the Jesuits were very fresh in the viceroyalty.

The Marques de Croix, supported by the Royal Order and a report regarding the matter presented by Visitor General don José de Gálvez, and subject to the opinion of the jurist don Eusebio Bentura Beleña, on May 14, 1768 determined that *mezcal wine* would continue to be permitted in New Galicia under the terms and conditions that had always existed, but prohibited it in New Spain within whose jurisdiction the natives of Tuspan resided, and thus they ceased to cultivate mezcal and manufacture the beverage.

This ratified the fact that *mezcal wine* was always permitted in New Galicia while, on the contrary, it was prohibited in New Spain. The errors generated regarding the supposed prohibition and clandestine nature of *mezcal wine* are due to ignorance of the existence of two government jurisdictions independent of one another being able to permit it in one and prohibit it in the other. This was the case of *mezcal wine*, always permitted in New Galicia, but prohibited in New Spain.

Alter 1768 any person was permitted to manufacture *mezcal wine* just as natives always had been doing, but only in the jurisdiction of New Galicia. This generalization of production was subject to a tax on that was called Filter Tax [*Derecho de Cribas*]; for it a Branch of the Royal Treasury with the name Branch of Filters [*Ramo de Cribas*] was created. The Filter Tax was collected by the concessionaire at the rate of four *reales* for each vessel under fermentation. The sale of *mezcal wine* was also subject to sales tax from which the Indians were exempted.

Although in 1780 don Teodoro de Croix, Commandant General of the Internal Provinces established an *estanco* of *mezcal wine*, the beverage continued to be prohibited in New Spain.

The document referred to by Margarita de Orellana wherein she states that “the prohibition being lifted”(?), in 1795 José Guadalupe Cuervo received the first license(?) from Carlos IV to produce *mezcal wine* has yet to be seen (17).

In 1811, by Order of Viceroy don Francisco Xavier Venegas, the concessions were terminated, and the manufacture of *mezcal wine* was freely permitted throughout the viceroyalty, thus lifting the prohibition placed upon New Spain.

What has been stated so far makes it possible to conclude that *mezcal wine* was an Indian beverage, that they had domesticated the mezcal plant for a special purpose, and that they knew how to distill mezcal juice prior to the conquest, having only exchanged the clay pots in which they distilled it for a metal still that was called *Fondo*. Although dealing with one of the prohibited or counterindicated beverages, permission to manufacture it and sell it freely under the name of *mezcal wine* had been obtained from the authorities, with the very functionaries of the Royal Court granting it. The Indians remained exempt from all taxes and sales tax as was all produce of the land, and its sale was authorized to Creoles and Spaniards through *estancos* and concession contracts, first in Guadalajara, and later only in the jurisdiction of New Galicia, indicating the clearly regional origin of the beverage.

EARLY DESCRIPTIONS OF THE MAKING OF MEZCAL WINE:

It must be considered that, being a beverage among those singled out as prohibited by the conquistadores, although permitted for the Indians of New Galicia so that they would not disappear, it is practically impossible that descriptions produced by the natives as to the process of fabricating *mezcal wine* would exist. The location of the

oldest factories in the heart of the lands of the community of Amatitán demonstrate the zealously that the natives had in manufacturing it, and that, of course, they would not teach the process of its manufacture. Even though foreigners would learn it, this would be useless to them in that it could not be manufactured other than by Indians. To the present, the earliest description of the process of manufacture of *mezcal wine* is that given in 1621 by Domingo Lázaro de Arregui.

In the second half of the eighteenth century there are reports on the process of manufacture, however, they were written by ecclesiastical and civil authorities, and not by natives. The Archbishop of Mexico, don Francisco Antonio de Lorenzana, on February 13, 1768, in the report presented to Viceroy Marqués de Croix regarding the most consumed beverages in the country (18), gives a description of the process of the manufacture of *mezcal wine*, stating:

“The fourth part is the mezcal, that is the juice of a wild maguey smaller than that used for pulque. This they roast in some pits that they call Barbecues, it is pressed in Stone Vats, from which it is placed in Wooden or clay vessels or in bullhides hung in the manner of hammocks. After it is fermented, it is distilled in a still and comes out fine or refined according to the number of times it is distilled.”

Also, the Supreme Council of the Indies, in an accord issued on June 10, 1769, gave an account of the procedure of making *mezcal wine*:

“...that in the form of Dispatches sent by the chief magistrates of La Barca, Lagos, Aguascalientes, Charcas, and Sierra de Pinos so that they should verify the manner of making mezcal wine, they have received information from experts, and all deposing answered that to make it is reduced to only cutting the Maguey that they call mezcal and, taking out the “pencas” from them, they toss the heads into a hot oven, and covering them with coals and stones already red hot, they keep them in this manner until they are cooked from the heat and take them out and put them in wooden shallow trays and mash them with wooden clubs made for the purpose by the manufacturers. After they are well ground they are placed in a hide bag that is placed in the sun, the air, and the cold, and when the bag is ready, they extract the pure wine without the mash into stills,

and nothing else other than mezcal is mixed in, and many of the mentioned experts stated that this method was useful, not like the one used in New Spain with lime, acacia and mesquite beans, and other poisonous plants.”

AMATITÁN AND TEQUILA:

The oldest documentary evidence to show the origin of the cultivation of mezcal begins with Amatitán, as does the the sale of the mezcal plant and the abundant manufacture of *mezcal wine* by the inhabitants of that town. From this is derived the fact that Amatitán is the center of origin of what is now called the “Agave Country”.

Documentation also credits the permanency and recognition of those of Amatitán as being a group that, from its pagan times, inhabited this place, and was made up only of “leading people”, both men and women, who cultivated, sold, and bought mezcal, and manufactured the spirits that the conquistadores called *vino mezcal*.

In the succession of the “Principal” Indian of Amatitán Luis Clemente González (19) in 1726, 500 mezcal plants valued at \$375 *pesos* that were planted in the communal lands of the Indians of Amatitán had been designated as those of the deceased and of his wife, Luisa de Sandoval. In the succession it is also stated how Luis Clemente constantly delt in mezcal with other members of the same native community, and that both he and his wife were owners of two stills [*fonditos*] (20). The Royal Court of Guadalajara, in 1769 recognized the town of Amatitám as the principal manufacturing center of *mezcal wine* (21).

Thus it is that in the ancestral lands of the community of Amatitán, in its canyons due to the abundance of water, the physical vestiges of the oldest manufacturing places of *mezcal wine*, the the primitive elements for cooking and fermentation of the beverage are found. It can be said that the natives of Amatitán developed the planting and cultivation of mescal, domesticating, adapting, and utilizing this plant, and also, in adapting and

utilizing the material elements of the area, they invented a technique and process for manufacturing the spirits that were *mezcal wine*

On the other hand, the Indians of the community of Tequila, before 1653, had permitted the Spanish and Creoles to settle on their lands where they planted sugarcane and established sugar mills. They authorized the division of the town beginning at the arroyo that crosses through it so that on one side a town named “Torre Argas (Orgas) de Ulloa” where the Spanish and Creoles lived existed, and on the other side of the arroyo the Indian town was located (22). Although after 1663 the town was re-established as founded, settlement continued in this fashion (23). There is no evidence that the Indians of Tequila planted mezcal nor manufactured *mezcal wine*, and from the documentation it is evident that it was not until the final third of the eighteenth century that the first taverns for the manufacture of *mezcal wine* appeared in the town of Tequila.

INDUSTRIAL ARCHAEOLOGY OF MEZCAL WINE AND THE PROCESS OF ITS MANUFACTURE:

The oldest site where and installation or “Tavern” [*taberna*] to manufacture *mezcal wine* is found on the lands that pertained to the Indian community of Amatitán. The site permits us to acquire knowledge of the technique and equipment for the manufacture of *mezcal wine* as used by the people of Amatitán; these should not be very different from those employed prior to the conquest.

According to this physical evidence, the process began with the cooking of the mezcal by using an oven of the type known as barbecue [*barbacoa*], a prehispanic structure excavated there, the walls of which were lined with volcanic stone. These are the characteristics of the oven located on the lands of Amatitán, the only one of its kind found to date.

The volcanic stones were found inside the oven and in the area around it, indicating that they were mixed in the interior with the strips of mezcal, so that in this

fashion they aided in the circulation of hot air to assist in cooking and in avoiding the crushing of the mezcal as it softened from the process.

Once the stalks and the core were cooked they were removed from the oven and ground in a vat or circular tub, commonly called a *tahona* (24), although it had nothing to do with the Hispano-Arabic *tahona* other than in the name, perhaps because it was associated with an instrument for grinding similar to a *tahona*. At the Amatitán site the *tahona* is circular and its floor is lined with basaltic rock in the form of cut, fitted stone slabs encircled with stones to complete the vat. This is similar to the mortar and pestle, also a prehispanic implement, although in this case of greater dimensions and capacity.

For grinding, a volcanic stone was used, worked into the form of a wheel that revolved around the entire tub until it extracted the juice that would be fermented, with the mezcal converted into a crushed mass. At the Amatitán site the milling stones and the remains of them in the surrounding area show not only that they were worked in places nearby to the *tahona*, but also demonstrate the length of time that this operation was in use in light of the many remains of worn out stones found there.

When the juice was obtained, it had to be fermented. For this, the site of Amatitán has tubs or wells in cylindrical or spherical form, worked from sources of a soft conglomerate rock called *Tepetate* (25) that is easy to work and maintains temperature and humidity. These demonstrate how the natives solved the problem of having a greater capacity for fermentation than that provided by clay vessels. Thus the physical location of this type of rocky soil for the installation of the tavern was important, in that all indications show that the composition of the *Tepetate* aided directly in fermentation. Although this must have been very slow given the temperature of this rocky material, on the other hand it provided a natural component favorable to fermentation, even if slow.

After fermentation the juice was then distilled, it being necessary to provide a double distillation that was originally carried out by using clay vessels. These were, shortly after the conquest, substituted with copper devices that were called *Fondos*, a type

of still. Only through double distillation a beverage clearer than water as described by Domingo Lázaro de Arregui could be obtained, because the fermented juice alone is not drinkable, and because a single distillation only produces a cloudy liquid that is not as clear as water. Therefore, as Lázaro de Arregui points out that the final characteristics of *mezcal wine* is such, and that this is known as an Indian beverage, we can conclude that prior to the conquest the ferment was given double distillation utilizing available materials, and that in the same way they continued making it by cooking, grinding, and fermentation after the conquest, following which they utilized the improvement of a metal still.

WATER, THE ESSENTIAL ELEMENT:

The factory or tavern had to be in a location near to the sources of water, since it was used in abundance, both in the mill as well as in adding it to the juice obtained so that it would give it the proper density for fermentation.

In the case of Amatitán there was a shortage of water in the town, but it was abundant in the canyons that were property of the town, as the tavern found in Amatitán demonstrates.

In Tequila the factories were along the length of both banks of the arroyo called Atizcua that crosses through the town, and they are located generally where the old sugar mills were established or near the springs that were on the lands of the Solidarity of La Purísima of the Indians of Tequila and on those of the Blessed Souls of Purgatory of Tequila, as well as in the haciendas of *San Martín* and *El Pasito* in that jurisdiction.

SYSTEMS OF FERMENTATION:

Physical evidence, as well as that shown in the documentation, lets us know that over time there were two systems employed in fermenting *mezcal wine*.

The oldest system consisted in carrying out fermentation in tubs or wells worked into formations of rock called *Tepetate*. In this way the natives resolved the problem of the capacity of the vessels, since with the tubs or wells in *Tepetate* they achieved greater capacity than that of the largest clay vessels that they could have manufactured. In that they did not know how to forge metal to make the bands necessary for wooden barrels they solved the problem by making tubs for fermentation with greater capacities from a material that was appropriate in all senses, *Tepetate*. This system of fermentation carried with it the necessity of finding formations of this rocky material to flatten them and cut the fermenting tubs into them. These tubs in cylindrical or spherical form provided greater capacity than any clay vessel. Fermentation of the cooked mescal juice, given the nature and qualities of the receptacle, must have been very slow but was aided by the material characteristics of *Tepetate*.

The other system of fermentation seems to have been developed after 1768 once permission was given for anyone to be able to manufacture *mezcal wine*, evidently due to the difficulty of easily finding deposits of *Tepetate* rock to make the fermentation tubs, and because it was necessary to increase the rapidity of fermentation to augment production. This is the system of fermentation referred to in the reports of Bishop Lorenzana in 1768 and the Council of the Indies in 1769, consisting of fermenting the mescal juice in animal hides or udders that were hung outdoors in the weather .

The fermentation tubs or wells made in *Tepetate* are the elements that make the difference from the fermentation system using hanging udders or hides. Hides are easily obtained and can be hung or placed anywhere and the tubs and wells required a specific location conforming to the physical composition of the soil in having to be *Tepetate* rock.

It is evident that in the places where there were solid deposits of *Tepetate* the system of tubs or wells cut into the rock continued to be used for fermentation, and in the places that lacked this material, fermentation was in hide or udder recipients hung outdoors, that were called *cribas* [filters], a term that, for the ends of the collection of the

Cribas Tax (*Derecho de Cribas*), was generically given to the all the recipients in which fermentation was carried out.

The taverns or factories of *mezcal wine* owned in Amatitán and in Tateposco by don Gregorio Ontiveros Godoy as referred to in his last will and testament in 1864 are described as being equipped with wells for fermentation; the inventories of the successions of don Joaquín Ontiveros Rosales and his wife doña Jesús Ruiz Rosales made in April, 1886 also describe their tavern in Amatitán as equipped with fermentation wells; and in the inventories of doña Brígida Ontiveros Rosales, wife of don Maximiano Hernández Orozco, of 1898 and in the sucession by the latter in 1920 her factory *Santa Rita* in the canyon of Tecuane in Amatitan is described as supplied with fermentation wells in *Tepetate* lands.

Doctor Silverio García, in the article “Trip to Ceboruco” in 1875, referring to the system of manufacture that he observed in Amatitan, indicated that it is very imperfect, stating: “*I have seen in the taverns of Amatitán various holes dug into the ground that serve to ferment the mezcal core. The alcohol is extracted into large pots adopted for it with their bottoms or coverings of metal; it is evident that of course with such a method, all of the product is not extracted from the maguey as would be with a more perfected procedure*” (26).

During the nineteenth century the system of fermentation in tubs or wells made in *Tepetate* rock, or that which used hanging hide or udder recipients, was substituted by large wooden tanks that provided greater capacity and rapidity in fermentation.

Although the system of fermentation in wells must have been considered sufficiently adequate to be used in some *mezcal wine* factories located in places where there were no deposits of *Tepetate*. Such were those of *San Martín* and *El Pasito* in the jurisdiction of Tequila, that in 1886 were property of don Malaquías Cuervo Flores, where they employed stone wells or tubs for fermentation, attempting to achieve the same result as with *Tepetate*, and only in the new factory of *San Francisco*, also property of

don Malaquíás in 1887, is mention made that the fermentation recipients were then wooden tanks.

EQUIPMENT OF THE TAVERNS OR FACTORIES OF *MEZCAL WINE*:

There is no documentation from the seventeenth and eighteenth century that describes the equipment of a tavern or factory of *mezcal wine*. To date the oldest documentation that mentions some element of those used in the distillation of mescal wine is in the previously cited succession of the Indian of Amatitán, Luís Clemente González of 1726. Those inventories list four *fonditos*, small stills, of which it was stated that two were new, the widow Luisa de Sandoval claim por the newes and the two old ones were left to the heirs of the deceased.

Nevertheless, what remains clear is that manufactured *mezcal wine* required the presence of an oven for roasting or cooking, a patio or mill for grinding, vats or filters for fermentation, and jars or stills for distillation, as well as a great deal of water for processing. Thus, the greater or lesser quantity or capacity of each of these elements determined the greater or lesser capacity for output of the factory.

The most abundant documentation regarding the equipment of the taverns or factories of *mezcal wine* dates from the nineteenth century. In it we find that methods were sought to increase the volume of fermentation and distillation, but without varying the essential stages of cooking, grinding, fermentation, and double distillation.

NOTES:

- (1).-Lancaster Jones, Ricardo. *Haciendas de Jalisco y Aledaños (1506-1821)*. Financiera Aceptaciones,S.A., 1974. The Hacienda de Cuisillos, together with that of Santa Ana Apacueco, was auctioned on 11 March 1702 to don Pedro Sánchez de Tagle, of the Order of Calatrava, Prior of the Consulate of Mexico, Marqués Consort of Altamira, and the title was granted before the scribe José de Valdes in Mexico City. The new proprietor took possession of the lands on 20 February 1704 through his agent Felipe Tello.
- (2).-Ortega y Pérez Gallardo, Ricardo.*Historia de las familias mas antiguas de México*. México, 1905. Vol. I: “Marquesado de Altamira”.
- (3).- Archivo Histórico del Estado de Jalisco. Protocolos. Escribano Juan García de Argomaniz.-Dote, 9 de Agosto de 1730.
- (4).-García Icazbalceta, Joaquin. *Colección de Documentos para la Historia de México*.Vol.2. Editorial Porrúa, S.A.,México, 1971.
- (5).- Tello, Fray Antonio. *Crónica Miscelánea de la Santa Provincia de Xalisco*.-Libro Segundo, Volumen II, pp. 327, 328. Instituto Jalisciense de Antropología e Historia, Serie de Historia 9, Volumen Segundo. Gobierno del Estado de Jalisco, Universidad de Guadalajara, IJAH, INAH, 1973.
- (6).- López Portillo y Weber, José. *La Rebelión de New Galicia*. Mexico, 1939.
- (7).- Tello, *op.cit.*
- (8).-Lázaro de Arregui, Domingo. *Descripcion de la New Galicia*, pp. 106,123. Colección Historia, Serie Crónicas de Occidente No.1. Gobierno de Jalisco, Secretaria General, Unidad Editorial Guadalajara, Jalisco, México, 1980.
- (9).-Cobarruvias, Sebastián de.- *Tesoro de la Lengua Castellana o Española*, (1611). Edición facsimilar: Ediciones Turner, Madrid, 1984. “ALQUITARA. O alcatara; Antonio Nebrixa buelve sublimatorium; es de raíz griego del verbo xaoapeuw, cathareou, purus sum, o del verbo xaθappew, delfuo, resolver. Otros le tienen por árabe, de quatar, que quiere dezir alambique; y de la alquatar dezimos corrompidamente alquitara. Diego de Urrea dize ser sin duda arabigo,* y que en su terminación se llama, quitartentum, distilatorio, del verbo catare, que significa distilar; pero yo entiendo que los árabes tomaron este nombre de los griegos, como otros muchos.”
- (10).-Lázaro de Arregui, *op.cit.*
- (11).-Mota Padilla, Matias de la. *Historia del Reino de la New Galicia en la América Septentrional*. (1742). Universidad de Guadalajara, Instituto Jalisciense de Antropología e Historia. I.N.A.H., Colección Histórica de Facsimilares 3, 1973. Capitulo LXV.-“Prosigue la materia del pasado y se da razón del origen que tuvo el estanco de vino mezcal...”.
- (12).-The term “retreats” has the connotation of a private ceremony or festivity of Indians; from this Mota Padilla considers “mezcal wine” to be a drink used by Indians in their “retreats”.
- (13).-Ayala, Manuel José de. *Diccionario de Legislación y Gobierno de Indias*.-Ed. Milagros del Vas Mingo.Tomo VI. De Ensayadores a Funerales. Ediciones de Cultura Hispánica, Madrid ,1989.-“Estancos.- Entiéndese por “estanco” el monopolio en la producción o venta de algún producto o mercancía, concedido por la corona en arrendamiento a algún particular o bien administrado por ella misma”. Tomo I.-De Abadía a Astilleros. -“Asiento (Concesiones monopolizadas).-Los gobiernos españoles de los siglos XVI y XVII y de los dos primeros tercios del XVIII, aceptando las doctrinas económicas entonces dominantes, arrendaron algunas explotaciones comerciales, con carácter de monopolio, a particulares, y a compañías en los últimos tiempos, regulándose estas concesiones en convenios denominados asientos. Fueron concedidos asientos a españoles y a extranjeros.-El asiento fijaba el objeto y el lugar de la

concesión, tiempo por el que se establecía, obligaciones del asentista en cuanto a ejecución del servicio y cantidad que había de pagar a la Real Hacienda.”

(14).-Valdeavellano.Luis G. de. *Curso de Historia de las Instituciones Españolas*. Alianza Universidad. Textos. Madrid, 1982.-“Los bienes de propiedad del Municipio, que en Castilla se llamaban “Propios”, eran una de las mayores fuentes de ingresos de la hacienda municipal”

(15).- Ayala, *op.cit.*, Tomo I.-De Abadía a Astillero.- “Alcabala.-La alcabala era uno de los impuestos de Castilla, consistentes en el pago de un tanto por ciento del precio de ciertas mercaderías al ser vendidas.-Tres eran las principales clases de alcabalas: *fija*, que se aplicaba en las ventas efectuadas por los vecinos en el mercado del pueblo de su vecindad; *del viento*, en las realizadas por forasteros, y *de alta mar*, en las de los artículos extranjeros en los puertos secos y mojados”.

(16).-Archivo General de Indias, Sevilla.Guadalajara, 231.

(17).-Orellana, Margarita de.-“El agave tenaz.-Microhistoria del Tequila; el caso Cuervo”. *Artes de Mexico.-El Tequila Arte Tradicional de Mexico*.Número 27.

(18).-Archivo General de Indias, Sevilla. México, 2331.-Relación del Arzobispo de México Don Francisco Antonio de Lorenzana Febrero 13 de 1768.-“sobre las bebidas que se usan en el País”.

(19).-Archivo Histórico de Tequila. Sucesión de Luis Clemente González, 1726.

(20).-“Fonditos”: small stills for distillation of mescal wine.

(21).-Archivo Histórico de Tequila.

(22).-Archivo Histórico de Tequila.

(23).-Biblioteca Pública del Estado de Jalisco, Guadalajara. Expediente del Ramo Civil de la Real Audiencia de Guadalajara, Caja 16-1-215.

(24).-Tahona es la denominación que se daba en España al molino tirado por animales.

(25).-“Tepetate”:del azteca “Tetl” piedra, y “Petatl” petate, estera; cierta clase de piedra amarillenta blanquecina, con un conglomerado poroso; sedimento media formación de petrificado compuesto de partículas silicosas.

(26).-Informe y Colección de Artículos relativos a los fenómenos geológicos verificados en Jalisco en el presente año y en épocas anteriores.-Edición Oficial.Tomo II.Guadalajara 1875. “Viaje al Ceboruco”, article by Silverio García.