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Knowledge Area

The works must be unpublished and refer to topics of education, crowdsourcing, operation of academics corps, regional development, fiscal, architecture, networks and other topics related to Social Sciences.

Presentation of the Content

In volume seven issue twelve as the first article we present, *Alcohol consumption in students of sixth grade of public primary school of Minatitlán, Veracruz*, by CORTAZA-RAMÍREZ, Leticia, VINALAY-CARRILLO, Ilsa, ALVARADO-CRUZ, Laura and LÓPEZ-AVENDAÑO, Rosa Armida, with secondment in the Universidad Veracruzana, as a second article we present, *Curricular innovation in the construction processes of university academics*, by ZEA-VERDÍN, Aldo A., GONZÁLEZ-BASILIO, Sofia de Jesús, URIBE-OLIVARES, Nadia Sarahi and CASTELLON-LEPE, Alma Jazmín, with an appointment at the Universidad Autónoma de Nayarit, as a third article we present, *Analysis of significant learning in the flipped classroom: a conceptual cartography*, by ESCUDERO-NAHÓN, Alexandro & MERCADO-LÓPEZ, Emma Patricia, with secondment at the Universidad Autónoma de Querétaro, as fourth article we present, *Towards an interpretative model of Mexcaltitan in the insular universe. First approximation*, by SIFUENTES-SOLÍS, Marco & GONZÁLEZ-LEFFT, Gabriela, with secondment at the Universidad Autónoma de Aguascalientes.

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Alcohol consumption in students of sixth grade of public primary school of Minatitlán, Veracruz

Consumo de alcohol en estudiantes de sexto grado de primarias públicas de Minatitlán, Veracruz

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Abstract

This research is a descriptive and cross-sectional study, carried out with the objective of describing the prevalence of experimental alcohol consumption in sixth grade students of public primary schools in Minatitlán, Veracruz, Mexico. The population was 1,560 sixth grade students; the final sample was 388 students. A simple group and random sampling were used. To collect the information, a personal data card was used that investigated the age, sex, experimental alcohol consumption, the age of onset of first consumption, frequency, who provided the drink and alcohol consumption in the parents. The study adhered to the General Health Law regarding Research. The results show that the average age of onset of alcohol consumption was 8.7 years, 59.4% on boys and 40.6% on girls reported having consumed alcohol. The preferred drink to experience consumption was beer (40.6%), 66.5% reported that their parents were aware of the consumption made and 61.8% indicated that both parents consumed alcohol. These results reveal that the children who participated in the study are starting consumption below the national average reported by the ENCODAT 2016-2017. Boys report higher consumption than girls, and participant's alcohol consumption is tolerated by parents.

Consumption of alcoholic beverages, students, alcohol consumption in minors

Resumen

Investigación de tipo descriptivo y transversal, realizado con el objetivo de describir la prevalencia del consumo de alcohol experimental en estudiantes de sexto grado de primarias públicas de Minatitlán, Veracruz México. La población fueron 1560 estudiantes de sexto año de primaria, muestra final de 388 estudiantes. Se utilizó muestreo por conglomerados y aleatorio simple. Se utilizó una cédula de datos personales que indagó edad, sexo, consumo de alcohol experimental, edad de inicio del primer consumo, frecuencia, quién proporcionó la bebida y consumo de alcohol en los padres. El estudio se apegó a la Ley General de Salud en materia de Investigación. Los resultados muestran que la edad de inicio de consumo de alcohol, fue de 8.7 años, 59.4% de niños y 40.6% de niñas reportaron haber consumido alcohol. La bebida preferida para experimentar fue la cerveza (40.6%), 66.5% refiere que sus padres tienen conocimiento del consumo, 61.8% indican que ambos padres consumen alcohol. Estos resultados revelan que los niños que participaron en el estudio están iniciando el consumo por debajo de la media nacional reportada por la ENCODAT 2016-2017. Los niños reportan mayor consumo que las niñas y el consumo de alcohol de los participantes es tolerado por los padres.

Consumo de bebidas alcohólicas, estudiantes, consumo de alcohol en menores

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Introduction

Today, alcohol is one of the most widely used drugs in the world, its abuse is associated with innumerable negative consequences, becoming responsible for a high number of health problems. Currently, it is considered the most widely consumed legal drug that has formed part of man's social and cultural environment, which has made it a widely used substance with enormous social acceptance. Within this context, alcohol consumption in the adolescent population takes on special relevance since it is a reflection of adaptation to society, attributing a social meaning to the adult world at the beginning, in addition to giving the substance some appeal (Smoked, Gámez and Valdez, 2017).

Excessive consumption is considered a serious global public health problem, which is present in various age groups, however the young population, as indicated above, is the most sensitive both to consumption and its consequences, so It has become one of the problems of greatest concern in society, due to its increase and the consequences for the consumer, both in their health and in their relationship with those around them.

It is well known that the consumption of this substance has direct and indirect effects on health. However, young people tend to experiment with this type of high-risk activities despite knowing some of its possible consequences (Orellana, 2019).

It is important to highlight that the stage between the end of childhood and the beginning of adolescence is a vulnerable period for drug experimentation, so consumption in this phase represents an increasingly frequent problem, and specifically in the childhood, has become a public health problem in the last decade (De Lima et al, 2016).

Early alcohol consumption has been found associated with countless negative events such as car accidents, increased exposure to violence, unwanted pregnancies, as well as increased suicide risks; in addition to causing losses in brain development, it produces in those who begin consumption early, a greater risk of presenting psychic disorders.

It is important to mention that the availability and frequency of consumption by relatives, in some way predisposes the onset of early consumption by children and young people, noting that the majority of individuals who start drinking early, frequently observe the use of alcohol at home (De Lima et al, 2016).

It is also known that age modulates the role of different risk and protective factors, associated with a greater or lesser probability of alcohol use and abuse. Studies show that the effects of acute and chronic alcohol administration differ according to the stage of development in which the consumer is, with an impact on the health of young adolescents especially. Similarly, early onset has been found to be markedly associated with the appearance of problems due to alcohol consumption. This has led to an increase in the number of investigations focused on the initiation of alcohol consumption in children under 12 years of age, who are starting to use the substance at an earlier age (Duffy, 2014).

In this regard, studies carried out in Spain by the International Institute for Family Studies indicate that within the family, attitudes, habits and opinions of the family environment in everything related to alcohol and its consumption determine the child's perception and how you will position yourself in the future on this issue. It also indicates that a poor, distant or difficult relationship with their parents is correlated with the presence of high alcohol consumption during adolescence. It also points out that if the child gets used to seeing a high consumption of alcohol in the family environment or does not have a clear perception of the consequences on their intake, they become more vulnerable to consuming alcohol prematurely (The Family Watch, 2017). Likewise, Ahumada, Gámez and Valdez in 2017, mention that from birth the learning and socialization processes present during the development of the human being influence through the learning of socially accepted norms and behaviors in family, school, friends / peers and the media. They indicate that the family plays a crucial role in protecting the child from drug use, since the family is the first social environment in which the individual develops and behaviors are modeled, it has a structure, organization, hierarchy and patterns of interaction. social that condition the behavior of its members.

However, this same family that protects, can also be considered a risk factor for starting consumption, because if there is consumption in it, it is the behavior patterns that the child tends to normalize. In this regard, Rojas, Rodríguez Zereceda and Otiniano (2013), affirm that family is a vital factor in approaching alcohol consumption.

Regarding their social environment, young adolescents need to connect with the peer group, which also represents a source of models and reinforcement of experimental behaviors. The peer group may pressure, or the individual may feel pressured towards the practice of risky behaviors; even turn them into identity signs, and it is at this stage that the boy or girl is willing to transgress and experience new sensations, and where both drugs and alcohol can act as a form of group membership. It is a moment of risk, and for some a way out of the prevailing social model.

Likewise, the multiple alternatives on the market for consuming, relating and having fun, favor risk situations, considering that these would be other reasons why minors consume alcohol. Eating in minors is mainly a way of fun, which has left healthy and constructive leisure in the background, such as practicing sports or carrying out cultural activities (Defensor del Menor de Andalucía, 2017).

In this regard, a study carried out in Spain by The Family Watch, (2017), indicates that 25% of the participants started consuming before the age of 13 and 50% before the age of 15; The findings reported events with devastating consequences related to the abusive consumption of alcohol at very young ages, which has fueled the social debate on this problem and has underlined the need to take sanitary and social measures in the face of this health problem in this country.

Another study carried out in England, with children between 11 and 14 years of age (n = 3,641), showed that 45.5% of these little ones had already drunk on occasion, having a mean age of experiencing alcohol of 9.4 years in girls and 10 years in boys (Philips, et al, 2010).

In Latin America, the consumption of alcoholic beverages is a constant concern for specialists and authorities, statistical data show disturbing changes in the habits of adolescents regarding the consumption of this type of beverage, pointing out that legal substances are the ones that they are consumed earlier, with an approximate onset between 10 and 14 years old, and early consumption impacts alcohol use behavior and problems related to this drug (Duffy, 2014).

In this regard, the Report on drug use in the Americas, carried out by the Organization of American States (OAS) and the Inter-American Commission for the Control of Drug Abuse (CICAD) in 2019, indicates that the prevalence of drug use in the last month of alcoholic beverages in the general population, shows a wide range of different consumption ranges, ranging from 9.5% in El Salvador to more than 52% in Argentina and Uruguay, followed by the United States with a consumption of 50% and from The Bahamas, Chile and Paraguay that exceed 40%.

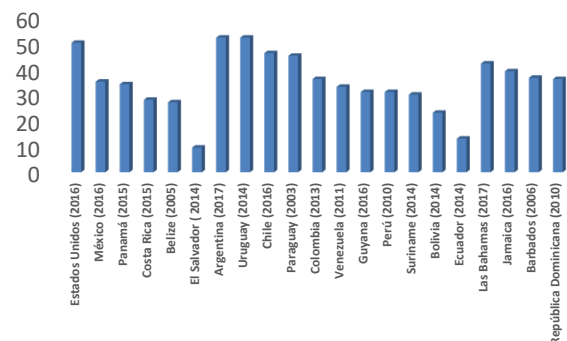


Figure 1 Prevalence of the last month of alcohol consumption in the general population by country, ordered by subregion

Source: Taken from the Report on drug use in the Americas 2019. OAS / CICAD

Data from the survey carried out by the National Commission for Development and Life without Drugs in Peru 2013, mention that the family environment that includes parents and siblings (19.4%), cousins and uncles (17.1%), represent the main starting environment consumption of alcoholic beverages (36.5%), followed by friends from the neighborhood (24.3%) and fellow students (23.8%). Regarding the annual incidence rate of alcohol, the study determined that each year more than 230,000 schoolchildren start consuming alcoholic beverages in this country.

Similarly, a study carried out in southern Brazil highlights that the use of alcohol throughout life was present in 62.8% of the participants, who indicated that they had already had some contact with alcohol and 12.8% claimed to have drunk before the age of 10, 45.3% had some type of contact with alcohol in the last month, regarding sex, 48.7% of the boys and 42.7% of the girls consumed alcohol in the last 30 days. The prevalence of alcohol consumption in the last month increased according to age, those who were 10 years old 3.2% had drunk in the last 30 days; those who were 11 years old 6.4%, those who were 12 years old 30.4% and those who were 13 years old 60% (De Lima et al, 2016).

In Argentina, Grigoravicius et al (2013), in their study of children, indicated that of the total number of children who ever consumed alcohol, 53% did so in the last year, the most consumed drink was cider and beer. Of the total number of children who had drunk, 69% did so in the last year and 5% drank in the last 30 days prior to administration of the instrument.

Another investigation carried out in Argentina with the purpose of knowing the risk and protective factors associated with alcohol consumption in 348 children and adolescents, with an age range of between 8 and 14 years; found that 42.5% had ingested alcohol at some time in life, with a higher percentage in men (48.3%) than in women (36.8%). This same study indicates the need to carry out research in pre-puberty and puberty, since it is at this stage that a relationship between the initial pattern of consumption and excessive intake in adulthood begins to be established (Duffy, 2014).

Cabuya in 2013, carried out a study in Bogotá, Colombia, with children from 10 to 12 years old to know the prevalence of alcohol consumption, their results indicate that consumption was higher in girls than in boys, the educational level in which there is The highest consumption is in the sixth grade, and the age at which they start consuming alcohol is 10 years old.

Age of onset of alcohol consumption is considered a risk factor for subsequent alcohol abuse and dependence.

That is, the probability that there is an alcohol dependence increases by four, when consumption has started before the age of 14, compared to those who start at 20 years of age. The highest risk is found in cases in which the onset occurs before 12 years of age, being higher in males (The Family Watch, (2017).

In Mexico, various investigations have reported the occurrence of experimental consumption in children of primary education, such as the one carried out in Celaya, Guanajuato, with 39 children of the first grade of primary education, aged 6 and 7, it was identified that 30.6% He had already had a beer sometime in his life. These types of findings demand preventive actions directed at school children (Hernández, et al 2017).

In this regard, Villatoro, et al. (2016), investigated the prevalence of drug, alcohol and tobacco use in elementary students (5th and 6th) and secondary-high school in Mexico and its States, reported that from a sample of 52,171 students in 5th and 6th grades In primary school, the prevalence "sometime in life" is 16.9%, 21.5% in men and 12.1% in women. Alcohol consumption in the last year was 8.1% (10.5% men and 5.5% women). In excessive consumption, 2.4% mentioned that in the last month they had consumed five or more glasses on one occasion (3.3% men, 1.4% women). It highlights that 12.5% of those who have not consumed alcohol indicate that they will probably consume it and 22.6% of those who have already consumed it would do so again.

As can be seen from the above, alcohol consumption in children represents a constant health problem, and it is because of this that the present study was conducted with the aim of describing the prevalence of experimental alcohol consumption in sixth-grade students. public primary grade of Minatitlán, Veracruz Mexico. In order to implement intervention strategies in this population group, to reduce the approach of these children to the consumption of alcoholic beverages.

Methodology

Descriptive and cross-sectional study carried out on a population of 1,560 sixth grade students from 52 public primary schools in the municipality of Minatitlán, Veracruz, Mexico.

The sample was made up of 388 students. The sampling used was by clusters and the selection of schoolchildren was simple random; Students enrolled in the August 2018 - January 2019 school period participated.

Instruments

To collect the data, a sociodemographic data card prepared by the study authors was used. Questions were asked to find out the prevalence of experimental alcohol consumption, where the age of first consumption, frequency, who had provided the alcohol, as well as consumption in parents and other relatives.

Ethical considerations and procedure

In the ethical aspect, the research adhered to the provisions of the General Law of Mexican Health, in the Matter of Research for Health 2014. The study was authorized by the Ethics and Research Committee of the Faculty of Nursing of Minatitlán with protocol number CIEE-SM-154. The information from the schools was requested from the City Council of the municipality of Minatitlán, through a letter issued by the direction of the Faculty of Nursing.

Once the information was obtained, 12 schools were randomly chosen to make up the sample, and each of the selected institutions was subsequently contacted to request permission from the educational authorities. After authorization, the participants were selected and the sociodemographic data card and the questions related to alcohol consumption were applied, after giving the consent and informed consent to each student. To avoid confusion in children, data collection was performed by reading each item aloud, in this way all students responded at the same time, according to what the authors Pilatti, Gody and Brussino (2010) indicated, who indicate which is a recommended technique. Once the data collection was completed, the information capture and analysis was performed using the SPSS version 24.0 program for Windows.

Results

The findings of this research carried out on 388 sixth grade students, show that the age of the participants was between 10 and 12 years old, with a mean of 10.84 years (SD = 0.46).

Regarding alcohol consumption, the majority (54.63%) indicated having experimentally consumed an alcoholic beverage, with a predominance of males (59.4%).

Table 1 shows that, of the children who indicated having consumed alcoholic beverages, 75% mentioned professing a religion and 73.6% practicing a sport; both actions considered as protective factors for the consumption of alcoholic beverages; In this sense, in the studied group the behavior of these variables was different from that reported by other investigations, since consumption prevailed in children who profess a religion or who practice sports.

	Consumers		No Consumers	
	f	%	f	%
Sex				
Male	126	59.4	78	44.3
Female	86	40.6	98	55.7
Age				
10 years	40	18.9	37	21
11 years	164	77.4	132	75
12 years	8	3.8	7	4
Religion				
Catholic	114	53.8	72	40.9
Christian	37	17.5	40	22.7
Other	8	3.8	11	6.3
None	53	25.0	53	30.1
Do you play any sport				
Yes	156	73.6	104	59.1
No	56	26.4	72	40.9

Table 1 Alcohol consumption and sociodemographic data of sixth grade students

Source: own elaboration from the Sociodemographic Data Certificate

Regarding the age at which they indicate having started experimenting with alcoholic beverages, this was between 6 and 12 years of age, an average of 8.7 years (Table 2).

In the students who reported having consumed an alcoholic drink on an experimental basis, 74.1% reported having consumed it in the last year, 18.8% had consumed it in the last month and 7.1% ingested alcoholic beverages in the last week prior to the study; worrying fact, since all the participants are under 12 years old (Table 3).

Age	f	%
6 years	30	14.2
7 years	26	12.3
8 years	32	15.1
9 years	26	12.3
10 years	78	36.8
11 years	18	8.5
12 years	2	0.8

Table 2 Age of onset of alcohol consumption

Source: own elaboration from the Sociodemographic Data Certificate

Frequency of consumption	Consumers	
	f	%
Consumption in the last year	157	74.1
Consumption in the last month	40	18.8
Consumption in the week	15	7.1

Table 3 Alcohol consumption in sixth grade students

Source: own elaboration from the Sociodemographic Data Certificate

	Consumers	
	f	%
Drinking drink		
Beer	86	40.6
Tequila	5	2.4
Came	45	21.2
Vodka	7	3.3
Other	28	13.2
More than 1	41	19.3
Who provides the drink		
Family	176	83
Friend	25	11.8
Own initiative	11	5.2

Table 4 Most consumed drink and who provided the drink

Source: own elaboration from the Sociodemographic Data Certificate

Regarding the drink with the highest consumption (Table 4), it was found that beer (40.6%) and wine (21.2%) were preferred by students to experiment with alcohol. When asked about who the person who provided the drink was, they refer to relatives (83.0%) as the people who in most cases facilitated consumption, in the same way they refer friends (11.8%) as providers of the substance; however, 5.2% indicate that they made the consumption on their own initiative, results that show how the family and friends environment continues to be an incentive context for consuming alcohol.

Table 5 shows alcohol consumption and some data on the relationship of students with their family environment; the findings indicate that 61.8% of consumers come from a nuclear family and the majority perceive a good relationship with their parents (56.6%); In the case of non-consumers, belonging to a nuclear family (70.5%) and good perception of the relationship (70.5%) with parents prevailed in the same way, both percentages are higher in those who do not consume.

It was also investigated, if their parents were aware that they had or consume alcoholic beverages, indicating 66.5% that their parents know that they consume, data that indicates the tolerance and permissiveness of parents towards this behavior.

In relation to the consumption of alcohol in the family environment of the students, 71.4% reported that alcoholic beverages are consumed in their family, prevailing consumption in parents (44.8%) and uncles (28.9%), also indicating that parties (50.5%) and weekends (24.3%) are the occasions where alcoholic beverages are ingested, it is worth mentioning that 3.2% report having family members who consume them daily (Table 6).

	Do consume		Do not consume	
	f	%	f	%
Family coexistence				
Mother	60	28.3	30	17
Father	7	3.3	0	0
Both parents	131	61.8	134	76.1
Another relative	14	6.6	12	6.9
Family relationship				
Good	120	56.6	124	70.5
Bad	20	9.4	7	4
Regular	72	34	45	25.5
Parents know about consumption				
Yes	141	66.5	0	0
No	71	33.5	0	0

Table 5 Alcohol consumption and family relationship of students

Source: own elaboration from the Sociodemographic Data Certificate

	<i>f</i>	%
The family consumes alcohol		
Yes	277	71.4
No	11	28.6
Consuming family member		
Parents	124	44.8
Uncles	80	28.9
More than 1 family member	38	13.7
Another relative	35	12.6
Place of consumption		
Parties	140	50.5
Convivios	61	22
Weekends	67	24.3
Daily	9	3.2

Table 6 Alcohol consumption in the family environment of the students

Source: own elaboration from the Sociodemographic Data Certificate

Regarding the social environment (Table 7), it is observed that 23.7% report having friends who consume alcohol and mention that parties (55.4%) are the preferred place to consume, 12.3% indicate that their friends have offered alcohol and 8% have accepted the invitation, pointing out that the main reason that led them to accept consumption has been curiosity (75%).

	<i>f</i>	%
Friends consume alcohol		
Yes	92	23.7
No	296	76.3
Situations in which they consume		
Parties	51	55.4
Convivios	21	22.8
Weekends	18	19.6
Daily	2	2.2
Offering alcohol by friends		
Yes	48	12.3
No	340	87.7
I agree		
Yes	31	8.0
No	357	92.0
Reason		
Out of curiosity	24	75.0
So as not to lose my friends	2	6.3
Because I like to consume it	6	18.7

Table 7 Alcohol consumption in the social environment of the students

Source: own elaboration from the Sociodemographic Data Certificate

Discussion

The present work was oriented to know the experimental alcohol consumption in sixth grade students of primary education of the City of Minatitlán in the south of the State of Veracruz. The results show that the average age of experimental start of consumption was found at 8.7 years of age, and more than half of the participants had already had their first experience with any alcoholic beverage, a data that coincides with the study carried out in Brazil. by De Lima in 2016, who reports an average age in the consumption experiment of 9.4 years in girls and 10 years in boys. Likewise, this result is below the national average reported by ENCODAT 2016-2017.

With regard to sex, among the consuming participants, consumption prevailed in men, similar data to the research by Villatoro in 2016 and Duffy in 2014 and Ocaña et al 2019, who indicate in their results a higher consumption of alcohol in men. Regarding the preferred drink, beer was the one with the highest consumption, a figure that differs from the study by Grigovaricius et al, (2013), who reports that in his study group cider was the most consumed drink; However, it coincides with Gerónimo, et al, 2017, who reports in the same way, that the most consumed drink was beer, and this was provided by a member of the family.

In this research, consumption seems to be tolerated by parents, since more than half of the parents of these students know about their children's consumption, a similar figure to the study by Grigovaricius et al, (2013) and Gerónimo, et al, (2017), referring that when consuming the research participants, they were in the presence of the adults responsible for their care, and even in many of the cases, the offer of alcohol came from their family. Likewise, this result coincides with Duffy's study in 2014, where it reports that the beginning of alcohol consumption occurs in the participants' homes, where it is adults who offer them to drink alcohol. Regarding consumption in the family environment, the study shows parents and close relatives as the main consumers, a finding similar to the study by Florenzano et al (2016), where it indicates that in more than half of the cases the main drinker was the father, mother or paternal or maternal figure, as well as other close relatives.

Among the reasons that the participants refer to encouraged them to consume alcohol, there is curiosity to experiment with the substance, a result that also coincides with Duffy (2014), who reports that it is the curiosity to consume something prohibited and representative of the adult world. who has motivated drinking alcohol for the first time.

Conclusion

The present work shows that the majority of the children who participated in this research consume alcoholic beverages; Although this consumption is on an experimental basis, it seems that they approach this licit drug easily, with the consent of parents and relatives, an action that places them as a high-risk population so that consumption takes root in them, due to that the substance is present both in their family and social environment, leading them to reduce the risk that alcohol consumption represents for their health due to the lack of clear perception regarding consumption, due to their young age and daily contact with alcoholic beverages.

These results show the need to deepen research in this population group, to address this health problem from a preventive perspective. Therefore, the findings of this study give the guideline for the design of interventions that address consumption in school-age children, to educate on the consequences of alcohol consumption and try to reduce early onset.

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Curricular innovation in the construction processes of university academics

La innovación curricular frente a los procesos de construcción de los académicos universitarios

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Abstract

The processes of innovation faced by educational institutions are a response to the different demands in the political, economic and cultural fields of the so-called knowledge society and the complex reality it is experiencing. It is then that innovation becomes a fundamental element to modify or transform the educational and academic practices that are developed in these institutions and focuses directly on what the different agents do. When speaking of innovations in the university curriculum, it must be recognized that there are multiple elements to be considered in the reforms to which the curriculum is exposed and in the processes of construction of those who implement them in the different spaces of formation. This paper presents a compilation of theories on how to understand innovation, as well as a reflection on the processes of curricular innovation that have been carried out at the Universidad Autónoma de Nayarit.

Resumen

Los procesos de innovación los cuales afrontan las Instituciones Educativas son una respuesta a las diferentes demandas en el ámbito político, económico y cultural de la denominada sociedad del conocimiento y la compleja realidad que se vive. Es entonces que la innovación se convierte en un elemento medular para modificar o transformar las prácticas educativas y académicas que se desarrollan en dichas instituciones y se centra de forma directa en lo que realizan los diferentes agentes. Cuando se habla de innovaciones en el currículum universitario, se tiene que reconocer que existen múltiples elementos a considerar en las reformas a las que se expone éste y por ende en los procesos de construcción de quiénes las implementan en los diferentes espacios de formación. El presente artículo presenta una recopilación de teórica de como entender la innovación, además de una reflexión respecto a los procesos de innovación curricular que se han llevado a cabo en la Universidad Autónoma de Nayarit.

Innovation, Curriculum, Academics

Innovación, Currículum, Académicos

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Introduction

The social movements that directly afflict education have promoted actions and changes in the internal processes of educational institutions. This implies, in turn, a series of modifications in the expectations of training in the subjects, which become a series of strategies for innovation in the curriculum, focused on the generation of competent professionals to face and integrate the new challenges that today's society represents.

These new challenges in the training of future professionals are focused and specified in the curriculum, which is permanently subject to processes of updating, modification or, at its extreme, to radical reforms in its construction, achieving the above, implies or implies explicitly incorporate innovation as an inherent aspect in all processes and subjects participating in it.

It is necessary to recognize the implications of implementing innovation processes in the curriculum, since it not only has to do with responding to the different demands and needs of the social, political, economic and cultural sphere, but also in thinking about how academics build and capture these innovations.

As already mentioned, the Higher Education Institutions (HEIs) are in constant changes both in their structures and in their functions due to the demands of public policies and society itself. In the search for new processes, its primary actors try to have a clear vision of where it is expected to go and how to achieve it.

Although the subject of curricular innovation has already been addressed in various investigations, systematized in the State of Curricular Research in Mexico, the meaning that this particular reflection seeks to address is the appropriation made by subjects around innovation and the ways in which they position themselves in front of a discourse, which in many cases is not analyzed accurately in the university environment.

The objective of this article is to contribute to the understanding of the process of curricular innovation that takes place within public universities specifically in a State Public University (UPES), such as the Autonomous University of Nayarit, through theoretical reflection and from the perspectives of authors dedicated to explaining educational reality through the curriculum.

The concept of curriculum versus innovation

Starting from the concept of curriculum which is broad and questionable in different aspects, it has different meanings in the educational field. It is assumed as the main mechanism for the transmission of culture and from it the knowledge that society as a whole needs to know and develop is selected and integrated.

The curriculum understood as a product or as a process, indicates the participation of academics and students in the construction and operation of the curriculum project. The curriculum as a process and as a social practice can also be understood in terms of Alicia de Alba (1991) as a political-cultural project that synthesizes knowledge, values, beliefs, habits and customs, and integrates different and diverse interests, sometimes contradictory.

These conceptualizations allow us to approach a posture of the curriculum oriented to the construction of the participating agents and as a project that is developed from educational and social practices that have to be consolidated in training processes linked to the needs and positions of academic agents.

From the above, it can be said that, innovating in the curriculum starts or should start from changes in its structure, determination of new directions for professional training, definition of new academic roles, development of new and varied forms of participation among university groups, establishment of new forms of organization, among others. But these changes must be mediated in the participation of university academics.

The depth of the process of social change currently taking place rests with those who assume the responsibility of training the new generations (Aretio, Corbella and Figaredo, 2007). The new educational processes require the participation of various actors, in this case reference is made to university academics, who from different professional roles contribute to this transformation of institutions through the integration of social changes in the curriculum.

Contreras (1994) mentions that, although not all changes within the curriculum mean an innovation process for an institution, the truth is that the vast majority of modifications are thought with that intention (p. 3), which refers to the importance of institutions integrating the concept of innovation into the curriculum as a permanent element, leading to quality in both content and teaching.

Therefore, understanding that the change in the curriculum has to do with the modification of social practices and for them to be reflected in it, it is necessary to perceive its implications (Ibidem, 1994, p. 5), therefore, is great importance a study of the desired situation, a balance between the real and the possible.

Integration of the concept of innovation from the university curriculum

Education has undergone significant changes in recent decades, so institutions would be expected to transform. Guzmán and Nahón (2016) express that universities have a social responsibility to make educational changes that allow their community to adopt the best valued skills. Institutions need to carry out optimal, controlled and reproducible transformations in order to promote and control the processes of production of intangible capital in education.

It is recognized that universities not only have to do things differently, if not better, thus referring to the concept of innovation. In other words, you can only understand innovation in institutions when you want to carry out a well-founded process of change. That they generate viable and practical changes that are thought from an improvement perspective (Zabalza, 2004). In the field of education, the term innovation is a new concept, from which various discourses related to educational reforms and changes are structured (Gros and Lara, 2009; Orozco, 2010 and Díaz, 2014), therefore, is used in various ways from basic, upper secondary and higher education, with very specific and significant meanings for each context, which turn out to be very heterogeneous.

In this sense, innovation must be understood as a process that has to be applied intentionally and in advance, educational actors must be recognized as an essential element to manage change processes. Fullan (2007) mentions that for the processes of change to be possible, it is necessary to have a comprehensive vision of the factors that intervene in it and emphasizing the sense that academics attribute to it. Innovation is emphasized in the field of the curriculum, since it represents a strategy of higher education institutions to face social changes and legitimize their role as trainer of professionals capable of facing the diverse demands (labor, personal, ideological, among others) that modern society manifests, the current society in which one lives is subject to a quantity of information, which increases day by day and therefore the formation of subjects becomes a real challenge for educational institutions.

These new information parameters respond to the main evolution of the community; the knowledge society. Which is not considered a static presence, neither finished nor defined. In this regard, Carneiro (2000, p. 41) mentions that "in the new, unstable, inventive and innovative society, the project overcomes the memory, the future dominates the past, the models are constantly questioned" so that talking about innovation that involves facing the dynamism of the knowledge society should not be assumed as a question with an end.

Incorporating changes in the knowledge society into the curriculum implies a slow pace. Formal and scholastic education in general in its different types and educational levels, maintains a slow trend of updating its processes and contents compared to the growth of social demands and the complexity of the problems to which the institutions seek to pay. It is then that innovation is more than improving, it implies generating a real change, a certain amount of risks and openness to results that are not expected and to processes that can arise in an improvised way.

Based on the above, the processes of resignification and appropriation of university academics to understand the complexity of educational and curricular innovation, is essential for them to be carried out, as well as thinking in this field. they produce tensions, conflicts, interest games, expectations, alliances and commitments. Where the total transformation of what was planned is not always reached, but without a doubt something new is introduced, different in what ordinarily worked (Díaz Villa and Nieto, 2012).

Recognizing the action of academics within institutions and remembering that innovation is subject to constant modifications and variations since it takes place in contexts characterized by their own dimensions and social expressions, the perspectives and experiences of university academics, are elements to consider in the approaches they make from the design and development of the curriculum.

It is then that innovation requires being viewed as a profound need for change that has to do with paradigms, social and educational practices in a specific community and "as a product of the reflection and appropriation of the people involved in the process (Díaz, 2005 . p. 43), where universities have to be entities of transition between social changes and educational processes.

The innovation discourse around education must be one of constant reinvention, the critical adoption of generating through a constant deconstruction of reality (Díaz, 2009).

Innovations in the curriculum and educational reforms in universities

The ability of the university to structure proposals whose scope affects the order of the social structure, is one of the main elements to focus attention on its activity and the processes that take place within; One of these processes refers to the construction of curricular projects and is conceptualized in the university curriculum where the formation of subjects represents the synthesis of cultural elements that hegemonic groups determine for a professional practice (Alba, 1991).

In universities, the design and development of curricular projects takes a significant weight in the construction of the proposals on which university professionals will be trained, from this idea the curriculum as mentioned by Díaz (2013) becomes the main mechanism to structure the university project.

In Mexico, educational reforms are not exempt from the political and economic pressures that make higher education institutions propose processes of "change with absence" (De Alba, 1991) of processes of reflection on the social conditions that determine the university. and even more, without an analysis of the institutional conditions and the educational system that will allow or not the viability of the reforms that are undertaken.

It is important to mention that an educational reform differs from curricular innovation in the strict sense, but both can be part of the same process. In this regard, Navarro and Sánchez (2004) mention that the reform involves planned changes in the entire structure of the institution, while the innovation integrates a set of changes planned on a smaller scale and that are part of a larger organizational structure.

The analyzes of the educational reform processes in the world, coincide that the transformations, reforms and innovations of the educational systems must attend to the teaching needs and the training of the academics as agents of change (Zidán, 2006). The innovation-led reform processes must be carried out collectively, that is, they allow all the various common points to be articulated. In the same way, the authors express that the impossibility of understanding reality allows the consolidation of inherited educational models (Lanz, Fergusson and Marcuzzi, 2003).

Innovation is then a central element of the curricular reform processes both in the design and development of the curriculum. If we start from the concept of curriculum development by Gimeno Sacristán (2008), innovation is the product of the participation of university agents. From this idea, the educational reform integrates a curricular reform, where the collaboration of the academics is something inherent when determining the curricular project within the institution.

According to Diaz (2005), the notion of curricular innovation is taken as a way of incorporating educational novelties into the curriculum, this process in most cases carried out without any reflection on institutional-academic, management, financial, among others- that could enable them or not. The author establishes that teachers are placed as the last ones responsible for developing such innovations, that is, as the actors in a scenography outlined by the central administration and that on rare occasions success is recognized as part of that teaching activity.

Generating the processes of change within the meaning of the universities is not an easy task, therefore, it must be based on elements that support them. Lanz, Fergusson and Marcuzzi, (2003) express elements that give a guideline to the generation of transformation processes in the university curriculum, such as the social relevance referred to the adaptations to specific economic, social and political demands, democracy, translated into the idea and practice of a university government that integrates the perspectives of its educational actors and critical thinking through the exercise of reflection from the plurality.

Results and contributions: the institutional context and the management of curricular innovation

Specifically in the case of the Autonomous University of Nayarit, in 2003 an academic reform process marked by curricular innovation was undertaken, which brought with it a series of changes in training processes and forms of academic organization; Most of these approaches were left without operation and far from materializing in specific practices, among them: organization by academic areas, the operation of training processes through academic bodies and multi, inter and transdisciplinary training (UAN, 2003).

The change process required activities by university academics dedicated to innovation. The university curriculum became the main axis of the academic reform of the institution and on the innovation process, other activities changed, among them the incorporation of tutorials, the flexibility of training times and the inclusion of the competency-based approach.

Between 2011 and 2014, the university redesigned more than 85% of its Associate Professional and Bachelor's degree plans, taking up the results of an institutionally relevant study that was carried out given the need to innovate earlier in the current context.

It is from this process that advances in innovation can be identified with respect to the construction of study plans; however, absences can also be seen in the curricular designs that will affect the training results of university professionals.

In a balance of those carried out, it can be said that the process of curricular innovation allowed the institution, in the first instance, to modify the study plans regarding the incorporation of elements of flexibility in the training areas that constitute school careers, updating the reference social problems; and focus the training process on students, as well as incorporate integrated professional competences (Farfán et al, 2010) as a unit for achieving the educational process (UAN, 2014).

For the development of the curricular redesign process that was undertaken at the university, a guide called Methodology for the design of curricular projects for integrated professional competencies was prepared (González and Zea, 2011), the purpose of which was to become a support for the group of academics responsible for the redesign and academic groups that made up the curricular committees. In addition, a series of institutional advisory services were provided to the different educational programs for the development of this process.

More than ten years after the reform carried out in 2003 and eight years after the 2012 modification, a series of curricular innovations have emerged at the institutional level, such as: incorporation of transversal axes, university collaboration projects, intermediate evaluation process, without They will undoubtedly have a profound impact on study plans and programs, but like any change it will improve and strengthen the development of the curriculum and therefore the training of professionals in different areas of knowledge.

However, and despite the efforts made to continue on this path of innovation, there are no studies within the institution that allow us to identify the level of scope of the innovations that were explicitly proposed to the curricular projects and, on the other hand, the changes cannot be valued as an isolated and individual fact, but on the contrary, it must become more complex from what the innovation implied for the academics the design process and the way in which they develop it.

Knowing how it was carried out and the way in which innovation is developed, will allow us to understand the processes from which the subjects appropriated or not their own.

Likewise, recognizing the main elements that shaped the process of curricular modification at the university in 2011 and 2014, will allow us to understand the construction processes of teachers in the face of curricular innovation, and this will provide guidelines for reflecting on how these same academic agents will have to re-incorporate these proposals designed from and for innovation not only in design but also in the development of study plans and programs.

It should be mentioned that the conceptualization of each of these forms of curricular innovation should not be problematized, but rather from the way in which these efforts are part of an innovative project that university academics undertook and are currently developing, and therefore Therefore, the gaze must turn around the sense of construction of university teachers against institutional curricular innovations.

Understanding that academics build different positions regarding the curricular innovation processes that they design and develop, and that these are related to tension, organizational and identity processes that are revealed, its analysis is indisputable.

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Analysis of significant learning in the flipped classroom: a conceptual cartography**Análisis del aprendizaje significativo en el aula invertida: una cartografía conceptual**

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Abstract

The Flipped Classroom is an educational model that asks students to study educational content at home and come to the classroom for learning activities. This promotes meaningful learning with the help of digital technologies. The aim this documentary research was to analyze the relationship between the Flipped Classroom and learning meaningful, through Conceptual Cartography, in order to propose an evaluation model for Flipped Classroom. To achieve this, the documentary research method called Conceptual Cartography was applied, which is developed in four phases: The findings suggest that, theoretically, there is a direct relationship between the Flipped Classroom and meaningful learning. This relationship is based on the theoretical principles of constructivism. However, there are no specific instructional designs for the Flipped Classroom and, so far, the evaluation of the Flipped Classroom has focused on students' perception of the model and not on their significant learning. In conclusion, although the Flipped Classroom does easily admit constructivist theoretical foundations when promoting meaningful learning, this relationship has not been reflected in its own instructional designs, nor in properly constructivist evaluation models.

Flipped classroom, Learning significant, Conceptual cartography, Educative Technology

Resumen

El Aula Invertida es un modelo educativo que solicita a los alumnos que estudien los contenidos educativos en casa y acudan al salón de clases a realizar actividades de aprendizaje. Así se promueve el aprendizaje significativo con ayuda de las tecnologías digitales. El objetivo de esta investigación documental fue analizar la relación que existe entre el Aula Invertida y el aprendizaje significativo, por medio de una Cartografía Conceptual, con el fin de proponer un modelo de evaluación para Aula Invertida. Para lograr lo anterior, se aplicó el método de investigación documental llamado Cartografía Conceptual. Los hallazgos sugieren que, teóricamente, sí existe una relación directa entre el Aula Invertida y el aprendizaje significativo. Esta relación se basa en los principios teóricos del constructivismo. Sin embargo, no existen diseños instruccionales propios para el Aula Invertida y, hasta ahora, la evaluación del Aula Invertida se ha enfocado en la percepción que tienen los alumnos sobre el modelo y no sobre su aprendizaje significativo. En conclusión, aunque el Aula Invertida sí admite con facilidad los fundamentos teóricos constructivistas al momento de promover el aprendizaje significativo, esta relación no se ha visto reflejada en diseños instruccionales propios, ni en modelos de evaluación propiamente constructivistas.

Aula invertida, Aprendizaje significativo, Cartografía conceptual, Tecnología educativa

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Introduction

The flipped classroom was created in 2007 by Jonathan Bergmann and Aaron Sams. These authors had two main objectives: to help students who were absent from class so that they did not fall behind in their academic performance, and to make the time of face-to-face classes more efficient (López-Cobo, Nó, Martínez, & Conde, 2018).

The flipped classroom is a new educational model that develops teaching-learning processes outside of class through Educational Technologies (ET). The goal is for students to study educational content at home and come to the classroom for dynamic learning activities, collaborative and discovery-based practices. In such a way that, theoretically, through ET and in favorable environments, the student collectively acquires, builds and consolidates knowledge and both he and the teachers evaluate learning (Barral, Ardi-Pastores, & Simmons, 2018; Blau & Shamir-Inbal, 2017).

The specialized literature on the flipped classroom admits that it is possible to adapt and integrate the constructivist theoretical foundations proposed by Piaget and Vygotsky. One of these foundations indicates that new knowledge is built on what the student previously knows. Therefore, in the flipped classroom, this principle is fulfilled when the student builds prior knowledge (from the elements with which he interacts, knows or reads outside of class) and new knowledge when attending the face-to-face class, with dynamic, practical and discovery-based learning activities (Barral et al., 2018; Blau & Shamir-Inbal, 2017; Khahro, Javed, Pirzada, & Ali, 2018; López-Cobo et al., 2018). Theoretically, the flipped classroom model is consistent with the educational principles of meaningful learning, which promote the construction of new knowledge from previous knowledge (Akçayır & Akçayır, 2018; Lokse, Låg, Solberg, Andreassen, & Stenersen, 2017).

It is relevant to remember that meaningful learning is a set of strategies aimed at the student learning to think-act, meaningfully, about the contents in a contextual way and, at the same time, know how to apply them appropriately in solving problems of everyday life (Díaz-Barriga & Hernández, 2002, 2004; Lokse et al., 2017).

The specialized literature shows that there is empirical research on the perception that students have of the flipped classroom.

However, an exhaustive analysis of the relationship that exists between flipped classroom and significant learning has not been found. Therefore, there are no models for evaluating significant learning in the flipped classroom. It is necessary to carry out documentary and field studies to know if it is possible that the flipped classroom adapts the constructivist theoretical foundations, so that the students are able to obtain significant learning and can be evaluated under those same educational foundations.

Aim and Method

The general aim of this documentary research was to analyze the relationship between the flipped classroom and meaningful learning, through conceptual cartography, in order to propose an evaluation model for flipped classroom.

To comply with the above, the documentary research method called Conceptual Cartography was applied. Conceptual Cartography has the purpose of managing, building, relating knowledge in relation to a concept or theory. To meet the objectives of conceptual analysis, Conceptual Cartography follows a structure organized in four phases: 1) Search for specialized literature on the flipped classroom in scientific databases; 2) Definition of the inclusion and exclusion criteria of the documents; 3) Analysis of documents with seven categories (Notion, Characterization, Differentiation, Methodology, Evaluation, Exemplification, Advantages / Disadvantages); 4) Interpretation of the results (Tobón, 2012; Tobón, Guzmán, Silvano, & Cardona, 2015).

Phases of Conceptual Cartography

The phases of Conceptual Cartography are as follows:

- 1) Search of specialized literature regarding the flipped classroom in scientific databases: a systematic search of research articles, books, and book chapters was carried out, in Spanish or English. Two scientific databases were used: Scopus and Science Direct. The search was performed between January and May 2019.

II) Establishment of inclusion and exclusion criteria. The inclusion criteria were: a) The Boolean method was used with the terms: (“Flipped classroom” AND “Meaning learning”); b) Documents whose title, abstract or keywords included the aforementioned terms were considered; 3) Documents that had carried out empirical research in the field of education were admitted; 4) Documents in English and / or Spanish that were published between 2014 and 2018 were accepted. The exclusion criteria were: a) Documents whose focus was on distance education or virtual education; b) Scientific essays, book reviews, press releases and popular articles. In total, 51 records were obtained in total in both databases. Once the duplicate documents were discarded, a review of the relevance of each one was carried out and a total of 31 documents were admitted for analysis (Table 1).

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Table 1 List of documents analyzed in the Conceptual Mapping

Source: own elaboration

III) Analysis of documents with seven categories. The analysis was performed according to the categories proposed by the Conceptual Cartography (Ortega-Carbajar, Hernández-Mosqueda, & Tobón, 2015), but for the purposes of the investigation, the categories “Evaluation” and “Advantages-Disadvantages” were incorporated. The categories of “Categorization”, “Classification” and “Linking”, which are proposed in the original Conceptual Cartography method, were discarded, because they did not present relevant results. The analysis was performed based on research questions (Tobón, 2012) (Table 2).

Analysis category	Research question
1. Notion	What relationship exists between the terms flipped classroom and meaningful learning?
2. Characterization	What are the characteristics of the flipped classroom related to meaningful learning?
3. Differentiation	From what models should the flipped classroom be distinguished and what role does meaningful learning have?
4. Methodology	With what methodology is the flipped classroom carried out and what role does meaningful learning have?
5. Evaluation	How is meaningful learning evaluated in the flipped classroom?
6. Exemplification	At what levels or areas has the flipped classroom been used to foster meaningful learning?
7. Advantages-Disadvantages	What advantages or disadvantages has the flipped classroom presented with respect to meaningful learning?

Table 2 Categories of analysis and research questions

Source: own elaboration based on Ortega-Carbajar et al., (2015)

IV) Interpretation of results. Once the research questions have been answered, the results are properly analyzed in section 3. Results.

Results

Notion: What relationship exists between the terms flipped classroom and meaningful learning?

The flipped classroom is an educational model where the student develops learning processes outside of class through ET. One of the objectives of the flipped classroom is to optimize the time allocated to face-to-face classes because the student previously studies at home and goes to the classroom to solve doubts and put into practice what has been learned with dynamic activities that promote discovery learning (Barral et al., 2018; Blau & Shamir-Inbal, 2017; Matzumura-Kasano, Gutiérrez-Crespo, Zamudio-Eslava, & Zavala-Gonzales, 2018; Melo & Sánchez, 2017; Muñoz & Vidal, 2018; Webel, Sheffel, & Conner, 2018).

In developing this process, the flipped classroom integrates the student-centered constructivist theory (Akçayır & Akçayır, 2018; Hao, 2016; Khahro et al., 2018; Lokse et al., 2017; Pierce & Reuille, 2018; Putri, Rusdiana, & Rochintaniawati, 2019) and, theoretically, this is how the learning strategies that promote meaningful learning are incorporated (Akçayır & Akçayır, 2018; Blau & Shamir-Inbal, 2017) (Figure 1).

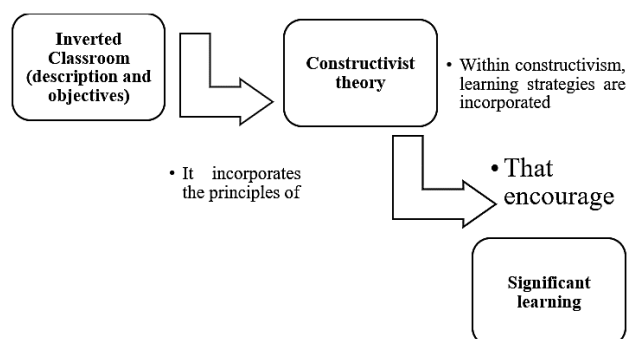


Figure 1 Relationship between the terms flipped classroom and significant learning

Source: own elaboration

The following learning strategies are commonly used in Constructivist Theory: 1) Active learning; 2) Self-regulated learning; 3) Cooperative and collaborative learning (Akçayır & Akçayır, 2018; Blau & Shamir-Inbal, 2017; Gadbury-Amyot, Redford, & Bohaty, 2017; Kanayama, Santi, dos Santos, & da Silva, 2018; Lokse et al., 2017; López-Cobo et al., 2018; Matzumura-Kasano et al., 2018; Melo & Sánchez, 2017; Munir, Baroutian, Young, & Carter, 2018); 4) Situated learning (Being-Yi, Ching-Yi, Gwo-Haur, & Fan-Ray, 2018); 5) Problem-based learning (Khahro et al., 2018).

The reviewed scientific literature shows that all these learning strategies were used in the flipped classroom (Akçayır & Akçayır, 2018; Being-Yi et al., 2018; Blau & Shamir-Inbal, 2017; Gadbury-Amyot et al., 2017; Kanayama et al., 2018; Khahro et al., 2018; Lokse et al., 2017; López-Cobo et al., 2018; Matzumura-Kasano et al., 2018; Melo & Sánchez, 2017; Munir et al., 2018).

Therefore, it is pertinent to mention that there is a direct relationship between the concepts flipped classroom, significant learning and Constructivist theory. From the theoretical, methodological and procedural points of view they are well harmonized.

Characterization: What characteristics does the flipped classroom have related to meaningful learning?

Some characteristics in the flipped classroom related to significant learning are (Figure 2):

- The student builds his knowledge from the elements with which he interacts, knows or reads outside of class, before addressing the subject in the classroom. To interact with the topic, the student uses ET as support tools (Being-Yi et al., 2018; Blau & Shamir-Inbal, 2017; López-Cobo et al., 2018; Matzumura-Kasano et al., 2018). Activities must be creative, based on the context and culture of the student, with the aim that they are meaningful (Being-Yi et al., 2018). In meaningful learning, meaning is attributed to new knowledge based on previous knowledge (Luna, 2014). Therefore, the acquisition of prior knowledge (with the help of ET) in the flipped classroom and anchoring with new knowledge contributes to significant learning in the flipped classroom.
- The flipped classroom is centered on the student. Thus, students become part of their own learning process and thereby have meaningful learning (Melo & Sánchez, 2017; Pierce & Reuille, 2018; Roach, 2014).
- Using ET as tools. Students learn outside the classroom with the help of ET and develop topics and content in an autonomous, creative and interactive way. According to constructivism, ET are strategic tools to promote meaningful learning (Being-Yi et al., 2018; Hernández-Leo & Hünter, 2016; Ibrahim & Izham, 2018; Kanayama et al., 2018; Madrid, Angulo, Prieto, Fernández, & Olivares, 2018; Matzumura-Kasano et al., 2018; Melo & Sánchez, 2017; Putri et al., 2019).

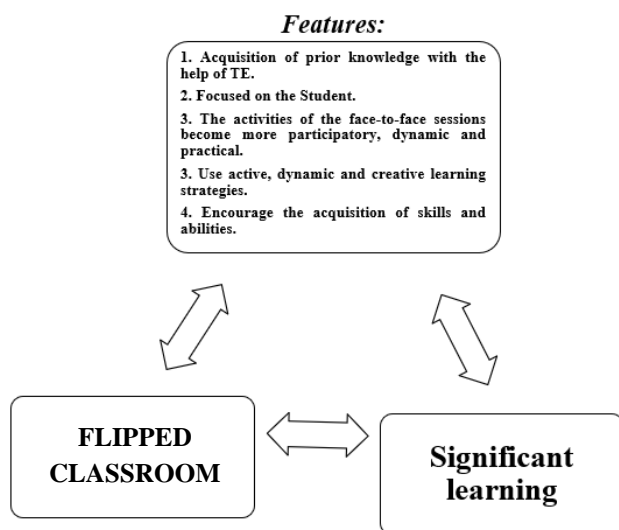


Figure 2 Relationship of the characteristics of the flipped classroom and significant learning
 Source: own elaboration

- d) In the flipped classroom, the time allocated to face-to-face classes is used in dynamic and participatory activities, making the time more effective (Barral et al., 2018; Blau & Shamir-Inbal, 2017). When students have active, participatory and dynamic classes, significant learning is fostered (Akçayır & Akçayır, 2018; Being-Yi et al., 2018).
- e) The flipped classroom uses learning strategies such as: A) Collaborative learning; B) Active learning; C) Self-regulated learning; D) Problem-based learning. Also, meaningful learning can be fostered with those same strategies. Some studies applied these strategies in the flipped classroom, but did not use an established model to assess whether significant learning was indeed generated (Akçayır & Akçayır, 2018; Barral et al., 2018; Being-Yi et al., 2018; Kanayama et al., 2018; Lokse et al., 2017; Matzumura-Kasano et al., 2018).
- f) Flipped classroom can promote critical thinking and problem solving skills, when appropriate strategies are used (active learning, collaborative learning, problem-based learning) (Nazarenko, 2015; San-Valero et al., 2018; Smith, Rama, & Helms, 2018; Wang, 2017). As these competencies and skills are developed, meaningful learning can be promoted. However, in research carried out in the flipped classroom, only the perception that students have regarding their acquisition of competencies and skills was evaluated (Akçayır & Akçayır, 2018; Blau & Shamir-Inbal, 2017; Khahro et al., 2018; Lokse et al., 2017).

Differentiation: From what models should the flipped classroom be differentiated and what role does meaningful learning have?

The educational model of the flipped classroom is, properly speaking, a variant of the traditional model of education. Therefore, it is useful to list the differences between the traditional model of education and the flipped classroom. In the traditional model, the method is based on the teacher. The teacher transmits the knowledge to the students. The student receives the information passively from the teacher. The teacher evaluates. Learning is evaluated through standardized tests (Aguilera-Ruiz, Manzano-León, Martínez-Moreno, Lozano-Segura, & Casiano, 2017; Asarta & Schmidt, 2017; Barral et al., 2018; Lokse et al., 2017; López-Cobo et al., 2018; Munir et al., 2018; Nazarenko, 2015) (Table 3).

Traditional model	Flipped classroom
Focused on the teacher.	Focused on the student.
Teacher transmits knowledge and evaluates it.	Teacher guides, facilitates, promotes, advises, projects and regulates knowledge.
The student's attitude is individualistic.	Teacher and student evaluate.
Does not require ET.	A collaborative attitude is encouraged.
Learning is assessed with standardized tests.	Requires ET.
Teaching and assessment are very different.	Not only is learning evaluated, but the learning process.

Table 3 Differences between the Traditional Model of Education and the flipped classroom
 Source: own elaboration

In general terms, the specialized scientific literature regarding the flipped classroom is very much about discourse on meaningful learning and constructivist theory. The same does not happen with the traditional educational model, which prioritizes the authority of the teacher and standardized and rote knowledge (Gadbury-Amyot et al., 2017; Lokse et al., 2017; Matzumura-Kasano et al., 2018; Melo & Sánchez, 2017; Pierce & Reuille, 2018).

Therefore, the flipped classroom would be an educational model where the theoretical principles of constructivism are more easily carried out.

Methodology: With what methodology is the flipped classroom carried out and what role does meaningful learning have?

The development in the flipped classroom is made up of four phases (López-Cobo et al., 2018):

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- 1) Experiential involvement (face-to-face time).
- 2) Exploration (non-contact time).
- 3) Creation of meaning (non-contact time).
- 4) Demonstration / application (face-to-face time) (Figure 3).

These phases allow acquiring skills and competences at higher levels. However, empirical research does not explain how these phases are carried out within an instructional design.

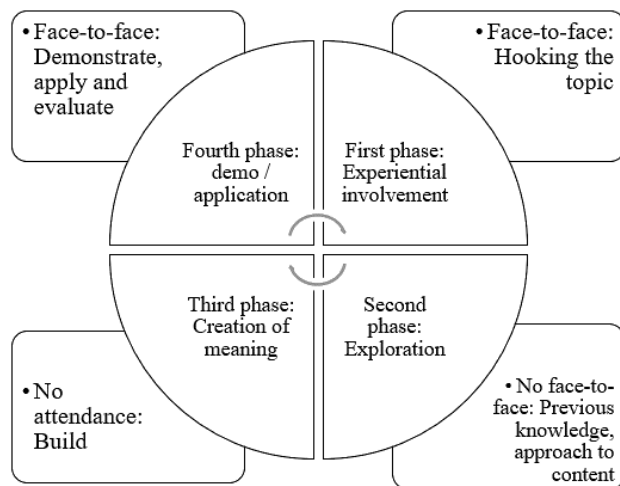


Figure 3 Phases of the flipped classroom
 Source: own elaboration based on López-Cobo et al., (2018 p. 985)

Few documents give importance to instructional design within the flipped classroom (Ibrahim & Izham, 2018; Jeune, 2016; Lokse et al., 2017; Roach, 2014). The above is relevant because an instructional design is a fundamental part when applying ET in a constructivist model, which plans, applies and evaluates activities to obtain meaningful learning. It is necessary to propose and evaluate instructional designs for the flipped classroom that integrate: 1) The phases in the flipped classroom; 2) The strategies and activities used based on the student-centered constructivist theory; 3) The competences and / or skills to be acquired; 4) The way to evaluate learning.

Assessment: How is significant learning assessed in the flipped classroom?

This Conceptual Cartography identified that there are no formal proposals for the evaluation of significant learning in the flipped classroom.

Until now, the evaluation in the flipped classroom is oriented to:

- 1) Analyze the perceptions that the Students have about this educational model.

- 2) Analyze the perceptions that students have about the application of some strategies in this educational model.
- 3) Identify the relationship between academic performance and this educational model.

However, a proposal for the evaluation of educational models that incorporate ET is currently being consolidated. The proposal is Learning Analytics and is proposed as a method of analyzing student learning behaviors in virtual educational models. Possibly, this proposal would have an adaptation to the flipped classroom, as long as there is previously a well-defined instructional design where algorithms capable of “tracking” the behavior of students on digital platforms can be built.

Exemplification: At what levels or areas has the flipped classroom been used to foster meaningful learning?

The application and research of the flipped classroom has increased in recent years (Akçayır & Akçayır, 2018). The most addressed educational level is Higher Education, followed by Higher Secondary Education and, in very few cases, in Basic and Postgraduate Education. In the area of knowledge where the flipped classroom was used most frequently was in the Natural Sciences (Medicine, Nursing, Veterinary Medicine and Dentistry). Another area of knowledge less frequently was Mathematics (Engineering). Very few investigations report the area of Social Sciences. Research does not demonstrate whether there are procedural differences in the application of the flipped classroom at one level or another, or in one area or another.

However, there are several expert recommendations for conducting empirical research in different contexts and evaluating possible differences between different levels and areas.

Advantages-Disadvantages: What advantages or disadvantages has the flipped classroom presented with respect to meaningful learning?

The specialized literature indicates that the flipped classroom implies both advantages and disadvantages. The advantages shown are from the perception that the students have of the flipped classroom. The perception that students have is positive, in terms of improving participation, motivation and learning environment (Akçayır & Akçayır, 2018; Domínguez, Sanabria, & Sierra, 2018; Melo & Sánchez, 2017).

Other research explains (but does not demonstrate with evaluation tests) that the flipped classroom can promote: 1) Meaningful learning through some learning strategies (adaptive learning, active learning, collaborative learning); 2) Obtaining prior knowledge; 3) A profitability for private schools (this in economic terms) (Khahro et al., 2018; Lokse et al., 2017; Pierce & Reuille, 2018).

Some important disadvantages mentioned are (Aguilera-Ruiz et al., 2017; Matzumura-Kasano et al., 2018):

- 1) There is no scientific database that explains, demonstrates, analyzes and evaluates the relationship between the flipped classroom and meaningful learning.
- 2) There is no instructional design with the constructivist characteristics that adapts to different contexts and with the phases in the flipped classroom.

Other disadvantages compared to the flipped classroom are not related to meaningful learning, but mainly to access to ET by students.

Conclusions

Through Conceptual Cartography it was established that:

- I. Theoretically, there is a direct relationship between the flipped classroom and meaningful learning. This relationship is based on the theoretical principles of constructivism.
- II. The flipped classroom is a booming educational model because it encourages students to study educational content at home with the use of ET and come to the classroom for dynamic, hands-on, discovery-based learning activities. In addition, in theory, this is how several precepts of the education that incorporates ET are fulfilled, such as the acquisition of digital competences, collaborative work because students can easily share digital information and, above all, meaningful learning because they face problems real of everyday life.

- III. No instructional designs were found for the flipped classroom, demonstrating the integration of strategies for meaningful learning. Therefore, there is no proper instructional design for the flipped classroom, where the planning, application and evaluation of constructivist strategies is described. It is necessary to propose and evaluate instructional designs for the flipped classroom that integrate: 1) The phases in the flipped classroom; 2) The strategies and activities used in the constructivist theory; 3) The competences and / or skills to be acquired; 4) The way to evaluate learning.
- IV. The phases in the flipped classroom have been poorly explained and evaluated within an instructional design.
- V. In fact, up until now, the evaluation of the flipped classroom has been aimed at measuring the perception that students have about the model and not about their significant learning. Evaluation models should be proposed for the flipped classroom.

The lack of an instructional design and an evaluation model is relevant for the educational field because the lack of data regarding the suitability of using flipped classroom when promoting meaningful learning could lead to teacher disorientation and the subsequent frustration of students.

In conclusion, although the flipped classroom does easily admit constructivist theoretical foundations when promoting meaningful learning, this relationship has not been reflected in its own instructional designs or in properly constructivist evaluation models.

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Towards an interpretative model of Mexcaltitan in the insular universe. First approximation

Hacia un modelo interpretativo de Mexcaltitan en el universo insular. Primera aproximación

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Abstract

The generation of knowledge on the specific topic of the island of Mexcaltitan de Uribe, Nayarit (Mexico) and its strange and no less mysterious urban trace, can be approached from at least two major fields of vision: 1) from the objective / subjective, individual / collective residents (egocentric communities); 2) from the objective / subjective, individual / collective view of nonresident aliens (exocentric communities). As researchers, in this article we adopted the second point of view, with the aim of constructing (as an input) a first approximation to the study of the urban trace of that singular place. For this, we resorted to two theoretical models and their application to the analysis of the space referred to: symbolic hermeneutics and the anthropological structures of the imaginary. The main contribution of the text lies precisely in the approach of the problem from the previous theoretical and methodological background, unusual in the academic field of architects and urban planners.

Mexcaltitan, Egocentric / exocentric communities, Anthropological structures of the imaginary

Resumen

La generación de conocimiento sobre el tema específico de la isla de Mexcaltitán de Uribe, Nayarit (México) y su extraña y no menos misteriosa traza urbana, puede abordarse desde al menos dos campos de visión principales: 1) desde el campo objetivo / subjetivo de residentes particulares / colectivos (comunidades egocéntricas); 2) desde el campo objetivo / subjetivo, de visitantes foráneos particulares / colectivos (comunidades exocéntricas). Como investigadores, en este artículo adoptamos el segundo punto de vista, con el objetivo de construir (como insumo) una primera aproximación al estudio de la traza urbana de ese lugar singular. Para ello, recurrimos a dos modelos teóricos y su aplicación al análisis del espacio referido: la hermenéutica simbólica y las estructuras antropológicas del imaginario. La principal contribución del texto radica precisamente en el enfoque del problema desde los antecedentes teóricos y metodológicos anteriores, inusual en el campo académico de los arquitectos y urbanistas.

Mexcaltitán, Comunidades egocéntricas / exocéntricas, Estructuras antropológicas de lo imaginario

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Introduction¹

In 1986, the Island of Mexcaltitan was declared as a Zone of Historical Monuments by means of a presidential decree issued in the *Official Gazette* of that year; the arguments put forward made it an object of ideological sacralization and therefore its ordered protection. In 2001 it was declared as Pueblo Magico, a distinction lost in 2009 for reasons not entirely clear.

The oral tradition, fed and distorted by the Mexican State and its institutions, has maintained the persistent idea that the island is the "Cradle of Mexicanness"² for allegedly being the mythical place Aztlan, from where the Aztecs (and with them, Xochimilcas, Chalcas, Tepanecas, Acolhuas, Tlahuicas and Tlaxcaltecas) left to found, after a journey of more than two hundred years, the powerful Mexican empire and the great capital that was eventually Tenochtitlan, an idea that the French geographer and urbanist Jérôme Monnet was brilliantly responsible for unmasking, denouncing that such an approach is part of the integration of the State to a symbolic geography of Mexicanness: Mexcaltitan and Aztlan thus became "federal centralist symbols that concentrate the nation around its only common denominator, the State"; Mexicanness, in this way, "ends up being at the same time a monument from the State".

Thanks to the mythification, the margin (Mexcaltitan, the poor but glorious periphery) becomes "the alpha of nationality, the matrix, the imaginary metropolis, counterweight to the real metropolis" (Mexico City, seat of central power). Mexcaltitan is emblematic "of the transmutation of history into myth and from space in symbol", which the State performs "for the interest of the center, which is also its own".³ But what does Mexcaltitan represent for its inhabitants, for tourists, for other communities of bronco or subdued Mexico? Its urban trace, so peculiar, to which set of meanings can be attributed? Are they all aware of the patrimonial or mythical values attributed to Mexcaltitan for the Mexican State? What does it mean in the subjectivity of these people to be an island, to be a mythical geography? What does it mean to outsiders?

If Monnet is interested in demonstrating "why Mexcaltitan is Aztlan in today's Mexico", what our work adds is a dimension little explored: that of the urban trace of Mexcaltitan as a material expression of a constellation of meanings that leads to linking it with long-standing island archetypes. In this direction, the hypothesis that underlies in our discourse, that does not pursue aims of verification but rather of abductive exploration, is, from a very preliminary exocentric perspective, that the curious urban trace of that town, reveals to us as an aspect with at least one dimension that links it to myths that keep common imaginary patterns related to the universal island culture, with some historical basis, since it is doubtful that this route (most probably from viceregal times) was the work of chance or spontaneity; on the contrary, everything suggests that it follows a premeditated design. Whoever had been the author (it is also doubtful that it was the work of many individuals), it would not be entirely unreasonable to have known, read and assimilated the geographic-literary genre of the medieval and renaissance *islars*, and even to be categorically proved it did not feed on other indigenous mythical counter-narratives (for example, Huichol); suppositions which, for the moment, we are unable to verify.

In this article we then approach a first approximation, still incipient, incomplete and totally controversial, of a space or of a mythified geography –in the Monnet line– through the search and "putting into practice" of the most ideal theoretical model and the analytical perspective more fruitful to answer the previous questions in the project in which we are involved. Hence, it is restricted to a bibliographical revision of the island's theme and to the rudiments of a conceptual theoretical body that allows, in the future, to fit the empirical work in a framework in which field data makes full sense. Also, it reduces to an elemental analysis of the trace under the previous concepts and categories.

For this, we have chosen to direct our research by postulating a space of convergence in the precise crossing of three theoretical fields: symbolic hermeneutics, anthropology of the imaginary and the geography of interpretation.

¹I especially thank Irma Leticia Medina for a first syntactic review of this article.

²The term "Mexicanness" refers to a kind of rhetorical figure of the birth and identity definition of a race, such as the Mexica or Aztec, as the metonymy of an entire nation, in this case the Mexican one (Romero, 1989: p.6). Its constitution as such is the product of stories instituted rather from the reinvention of myths of origin made by secondary sources, often with political-ideological aims, as Monnet (1991: 25) has shown.

³After considering the inconsistencies of the available evidence (which we will see later), this author is not interested in demonstrating why Mexcaltitan is not Aztlan, but precisely "why Mexcaltitan is Aztlan in today's Mexico", that is, what lies behind the persistent idea on placing it as the cradle of Mexicanness (Monnet, 1991: 25-39; Monnet, 1995: 287-318).

The first, in the sense of positioning Mexcaltitan in a more general frame of discussion around the insular universe. The second is to interpret the urban trace of the island, in a *mythological* frame, and the third is interested in understanding how they conceive and what meanings give to this geographical territory different communities of subjects, both residents and foreign visitors (tourists or ethnic groups), from the processes of subjective construction of their relationship with the island, with the layout and in general with the urban-architectural heritage, which is the framework built in where they develop their life; that is to say, in *ethnographic* terms. In the last part of the text, we began to immerse ourselves in that space, through a first analysis of the urban trace of Mexcaltitan as a pretext to better understand the theatre where they are produced or from which narratives and counter-narratives are reinvented, whose interpretation will be a matter of other deliveries. For now, we must be content with this, given that the project is just underway.

The theme of the island in the universal island imagination

In a relatively recent text, Georgeos Diaz-Montexano (2014), from the Scientific Atlantology International Society, has stated forcefully that "There is no connection between Aztlan and Atlantis". And in many ways he is right. We do not intend here to oppose any thesis or argument of a geological, archaeological, philological, epigraphic, lexicological or even historical character against this statement, but rather to point out that in another sense there is at least one dimension that links them to myths that keep common imaginary patterns, with some historical basis, but also to mythical imaginaries exploited by non-scientific literature. That is why we wanted to start with a brief development of the island theme as a mythical imaginary.

From symbolic hermeneutics, throughout the history of the cities, insula has been a topic that has occupied the imagination and pen of not only a few writers. The prototypical or archaeo-prototypical case is that of the "lost continent" of Atlantis, in whose bosom a society and culture of wise and technologically advanced humans flourished in the time, whose capital was established as the centre of an "island-peninsula" (*Atlantis nêsos*).

Based on Plato's writings, hypothetical reconstructions suggest that this nucleus was surrounded by three concentric ports, two land areas and a citadel, in a total diameter of almost 5 km; in these last three areas there were several inhabited spaces, already open, already closed, as well as temples, palaces and acropolis such as gymnasiums, racecourses, gardens, woods, fountains, monuments, military barracks, common rooms, harbours, bridges, docks, canals, aqueducts. Plato himself, in the dialogue of the *Laws*, conceived the city of Magnesia with a circular arrangement consisting of seven concentric circles whose radii were obtained from the harmonic progression resulting from multiplying the series 1, 2, 3, 4, 5, 6, 7 as follows: $1 \cdot 1 = 1$; $1 \cdot 2 = 2$; $2 \cdot 3 = 6$; $6 \cdot 4 = 24$; $24 \cdot 5 = 120$; $120 \cdot 6 = 720$; $720 \cdot 7 = 5,040$; that latter number was ideal for the population foreseen and for the number of lots (Navarro, 2016: 23-24; Muñoz, 1991). Assuming that the radius of the central circle measured 1 stadium (the first digit of the previous series), its diameter would therefore be equivalent to 2 stadia, that is, approximately 400 m, which is the long diameter of the island of Mexcaltitan.

It is speculated that the great island Atlantis could have been located in the Mediterranean, although also it has been located in the Atlantic (which is most likely), while fantastic theories of improbable sites abound, provoked by the relatively absence or lack of documented certainties and verifiable vestiges.

Plato, in his *Dialogues*, picked up, second-hand, an old legend that went from mouth to mouth in a retro-chain that ran from Critias to his grandfather, and from him to Athenian politician Solon, who in turn transmitted Egyptian priests from the Nile delta. According to this tradition, origin of the mythical kingdom went back up to nine thousand years before the mentioned dialogue,⁴ some even speak of twelve thousand,⁵ resulting in an incredible earlier date even to the dawn of the earliest civilizations in Sumer and Egypt (Killuminati, 2013).

Whatever it is, the truth is that in the *Dialogue*, Critias relates that in times immemorial the gods divided among themselves the world, belonging Poseidon the island territory of Atlantis.

⁴Without author, "Atlantis in the «Dialogues» of Plato. About *Ἀτλαντὶς νῆσος* (*Atlantis nêsos*) or the island-peninsula of Atlantis", at: http://www.culturandalucia.com/TARTESOS/PLATON_DIALOGOS_CRITIAS_ATLANTIDA.htm. Consult: May 28, 2017.

⁵Without author, "Civilization and the lost continent of Atlantis", in: <http://www.borala.site/continente-perdido-de-atlantida>. Consult: June 23, 2017.

He married a mortal, Clito, who lived on a hill on the island, which Poseidon soon proceeded to fortify, so that "he isolated her from everything that surrounded her. He made walls and moats with earth and water of the sea alternately, some smaller, some larger, two of earth and three of water, occupying the centre of the island, so that all its parts were at an equal distance from the same".⁶ This last description confirms, as in fact Critias manifests it almost explicitly, that the island within the island, that is to say, the "isolated island that embodies the semantic tautology of insularity" (Ainsa, 2000: 7), had a circular shape, furrowed by the three moats and the two areas of land, which reserved the centre for the citadel. If this happened or not, it is something that archeology (probably underwater, given that in Plato's time it was said that this island continent had sunk after earthquakes and other calamities) should elucidate it; but what is important, for our purposes, is the fable of an island within another island, a beautiful metaphor of the relationship between interiority, exteriority and centrality, finally, between the ego and the alter, between the own and the other.⁷

For all the above, it would be little less than a sterile exercise to wear out in the eternal discussion about the true geography of Atlantis. On the other hand, it is another type of geography that we are interested in discussing here: "mythical geography", the invention and reinvention of a myth of which there are many parallels in ancient cultures or, as Fernando Ainsa says, mythology island, which although it was founded in classical Greece, was until the thirteenth century AD when "popular belief is widespread that the most spectacular wonders and most exotic lands are in mysterious and distant islands" (Ainsa, 2000: 9); in short, our focus is the metaphorical subjectivization of the island condition, not without the idyllic connotations of a lost golden and quasi-edenic age: Atlantis would be the archetype of the island (any island), in which a symbiotic relationship is established between the inside and the outside, or the closed and the open (Punte, 2013: 117), but from the tension established with a centre, with the knowing and feeling centre, as well as, in this same tenor, had already noted Frank Lestrignant (quoted at Pellicer, 2000: 355).

Atlantis as a golden kingdom, Avalon as a mythical island⁸ of the Arthurian legend, Aztlan as a primitive island, Mexcaltitan as "center of Mexicanness", Tenochtitlan as the navel of the world, Utopia as unrealistic fantasy. Cosmos -order- and chaos: the centre (the city, the island) "will be a harmonious cosmos, outside of which is the nature in the middle of which man loses and succumbs" (Iriarte, 2005: 24).

Is it the fear of the alien, the strange, the non-proper that governs the insularization of existence, real or imaginary, as Iriarte (2005: 27) seems to suggest? Mario Tome (1987: 15) points out that from ancient times "the island has been a continuous object of human attention". If the symbol, he says, "is a «meeting place» in which a representation or physical entity, with an «incomprehensible content - invisible, unspeakable and trans-conscious», the island is revealed as such"; thus, the symbol of the island "appears as an enigma that man must decipher to know himself" (Tome, 1987: 17). According to this author, among the many authors who have worked on the island as a theme, seven basic contents can be extracted and these are the island as a primordial spiritual centre; as a paradisiacal space; like another world or beyond wonderful; as a microcosm; as a land of utopia; as the shelter; or as the conjunction "island-woman" or "shipwreck-island" (Tome, 1987: 18).⁹

It is curious but revealing that in the myths of origin or in the imaginary of sacred or foundational texts the Hereafter appears surrounded by water, or that the "cities of immortality" of mythology and religion are separated from the mainland, united by some element that allows the passage to them. Thus, Tome refers to various examples around the ancient world: the city of the willows in the Chinese tradition; to the White Island (Sweta-dvipa) of the Kurma Purana; to Syria among the Greeks, to which "it could be identified with the Hyperborean Thule"; or to the island of Leuke in Greek mythology, the immortal abode of Achilles, or in the end, in this same tradition, to the Island of the Lucky.

⁶Without author, "Civilization and the lost continent of Atlantis", in: <http://www.borala.site/continente-perdido-de-atlantida>. Consult: June 23, 2017.

⁷An acceptable discussion of cultural prejudices about "the Other" can be found in Gracia (2000: 283-296).

⁸For Martínez (1997: 20-21), a mythical island is that "in which the myth plays an important role in its history or in which a certain myth develops completely".

⁹From the literary field, Cristina Peri Rossi (2000: 382) ventures that there are at least three main allegories about the islands: a) as paradise or utopia; b) imprisonment, exclusion, marginalization, exile or estrangement; c) as interiority, ultimate redoubt of subjectivity, inalienable space of the self.

Among the Celts would be Sidh, but also the island to which San Brandan arrived, as well as the Green Island; in Arthurian legend the aforementioned Avalon; and Montsalvat, the mountain in the middle of the sea of the legend of the Grail; in Islam also emerged the topic of the Green Island in the White Sea, whose description paints it like a walled circle that protects a city (Tome, 1987: 24-28).

Other accounts are the supposed voyage of Yambulo (counted by Diodorus in the first century BC) to the "marvelous" Islands of the Sun in the Indian Ocean, one of which "was round in shape and had a perimeter of almost five thousand stadia", that is to say, a territorial extension not negligible, taking into account that these five thousand stadia would equal to thousand kilometers in circumference (Fernandez, 2010: 35). Also, that of the "wandering islands" of the Greek Mediterranean, inserted in a mythological framework approached by Moret (2011 / 2012: 455-464), by which this author finds that this phenomenon is presented in several ancient stories that share four archetypal elements reproducible as mythical schemes: a "wandering" island, a god that fixes it to the base of the world and makes it habitable, a serpent and a fountain (Moret, 2011 / 2012: 459). Note the parallelism with the foundational myth of Tenochtitlan; likewise, notice the one of Mexcaltitan, that is extremely similar to the opinion maintained by Achilles Tacitus, in 2nd century AD, about the island of Tire, which gave the "strange spectacle of a city on the sea and an island on earth" (Moret, 2011 / 2012: 462). Keeping the proportions, the building density of Mexcaltitan, occupying the whole island, and its proximity to the banks of the lagoon that surrounds it, which although it is part of the national marshes, is still close to the mainland, bring it very close to the expression of Achilles.¹⁰

Marcos Martinez (2010: 55-74) has worked on the topic of legendary islands both in history and in literature, distinguishing them from the utopian islands, mythical or even what he calls "ghosts".¹¹

Montesdeoca (2000: XXXIV), in his introductory note to the genre of geographical literature called *Islars*, focused in particular on the analysis of *De insulis*, by Domenico Silvestri (14th century, first model of *Islars*), adds to this typology the cases of floating and paradisiacal or imaginary (Montesdeoca, 2000: XI), which may well correspond with the wanderers of Moret and Martinez, respectively. Montesdeoca (2000: XI) also informs us that the sixth chapter of the 14th book of the *Etymologies*, by Isidore of Seville (7th century AD), "is considered the most systematic exposition of insular geography of Antiquity", although we also know of an islar made in 1560 by Alfonso de Santa Cruz (Oiffer, 2011: 99-128).

The introductory study of Montesdeoca is, so far, the most complete we have consulted.

In the Utopian tradition, adds Tome, "the island is the geography par excellence"; Trousson, quoted by Tome, warns that the most obvious and common external characteristic of utopia is its insularism, with the addition of involving the construction of a miniature society, in which, Tome (1987: 28) adds, "The need to move away from the real is imposed on the creator of utopias, who becomes an inventor of worlds in small, isolated from all corrosive contact with the outside" (Tome, 1987: 28) or, as Ainsa (2000: 13) affirms, "utopias will have the privileged stage of the islands and their primary vocation will be the «(isola)tion» and the autarchy that is adjudged as a virtue of uncontaminated purity", governed one and the other by a "will of insularity" and not a mere natural accident of geography.

Of course, the creative literature has not ceased to be attracted by the stimulating theme of the island *topos*, a field in which ink has also flowed generously, considering that this can be added to the four or five metaphors to which recurrent universal literature, one of which is water.¹²

¹⁰The marshes represent an aquatic world that simultaneously "is not sea but not earth", and yet, following the mythical logic of the huicholes about opposites that are both one, it is sea and it is land: symbolically it is a village "in the sea", that is to say island surrounded by water, and "an islet" among the marshes, surrounded by land (Neurath and Pacheco, n.d.: 5).

¹¹See also Martinez (1997: 19-43). A critical work in this line is Cruz (1994: 241-245).

¹²As stated, following Jorge Luis Borges, Peri Rossi (2000: 379).

In 1998 the Third Congress of the Spanish Association of Hispanic-American Literary Studies was organized on the island of Tabarca, in Alicante, where various papers were read, the main theme of which was "the possible island", focusing on "all dreams" literary writers who, in the Spanish-American tradition, had been fed by islands and, from them, "opened the congress in addition to correlative symbols that allowed anyone who did not have an island on hand to participate by metaphorizing their intervention on the island-city, island-eros, island-utopia, symbol of the last Thule, island-salvation ... or any possible symbolic transformation" (Alemany *et al.*, 2000: 6); in this tenor, some suggestive titles were: the geography of the isolation; the imaginary anti-utopic insular; narrative and history of an island without sea; metaphors of the island; the different insula in the cosmos; drifting islands and floating identities; from the island to the cosmos; singular islands: Amazonas and Jauja; the inner island; in addition to many others related to poetry and narrative.

In obviousness of space, this very brief account should suffice, in which we must emphasize, following Fernandez Robbio (2010: 29), that the historiography (the utopian narrative), the mythology (the fantastic story) and the ethnography (the travel narrative) are mixed, and where the emergency zones of the symbol are: a) the phenomenology of religion; b) the universe of psychology; c) the world of creative imagination (Tome, 1987: 17).

For the approach of the island: brief theoretical and methodological considerations

If our project dealt with the cultural history of oral or written texts in which the idea of Mexcaltitan as the mythical Aztlan would have occurred, "our attention and interest in myths would have to shift from the hypothetical meaning of the text -from the inquiry about the diversity of its possible interpretations- to the description of the diversity of its effective actions",¹³ a route such that, in our case, we will not be able to continue in this first approximation for a reason as simple as the difficulty of having the relevant primary sources.

The choice we make, that is, our interpretation (one among that diversity of possible interpretations) of the hypothetical meaning of the island trace, will have to be confronted with the interpretation of the world and the order of it in the "effective actions" of various categories of social subjects (second approach), that is to say in the psychodynamic inter-determination between them in and with their environment.

So that, the comprehension and understanding of this topic has led us unflinchingly to the orbit of the anthropological structures of the imaginary, the general archetype, the anthropological path and the symbolic imagination of Gilbert Durand (2000), but also, in the specific case of Mexcaltitan, to the geography of interpretation (Monnet, 2011: 135-159).

If the first thing... for Durand the symbol is "a representation that makes appear a secret sense; is the epiphany of a mystery" (quoted by Ocampo, 2008: 36). His theoretical building generated the notion of an "anthropological journey", which consists of a dialectical coming and going between the subjective pulsations of the *psyche* (which connect with the nervous centres) and the objective situations that derive from the social environment (which derive in corporal gestures): this path would be the domain of culture and the process of symbolization (which becomes symbolic representations). In this way, the symbolic representation system implies the existence of three organizing structures of images: the schizomorphic structures (Diurnal regime of the images, or spatiality), the synthetic structures and the mystical structures (Nocturnal regime of the images). Each of these corresponds to certain dominant reflexes and schemes of action; to schizomorphs: distinguish, idealization, geometrism, antithesis (postural reflex); the synthetics: uniting, dramatization, historization and partial or total progress (copulative reflex); and the mystics: to confuse, redouble, viscosity, sensory realism and spraying (digestive reflex) (Ocampo, 2008: 34-40). Durand defines the scheme as "dynamic and affective generalization of the image", while archetypes constitute the "substantiation of schemata" or "expressions of certain mental instincts that unite the imaginary with rational processes" (Gracia, 2001: 144).

The diurnal regime "is linear time, and also the realm of light and the fear of darkness, for these are the expression of death as the end time".

¹³Walter Ong, quoted by Ekman (2009: 299).

It is the regime of antithesis, of separation, of heterogeneity. While the nocturnal regime "is the cyclical time where death is assimilated in another way, through myths, rituals or stories that place this death on the side of initiation, learning, as a part of life. There is, therefore, euphemism of the night and this one is full of colors" (Ocampo, 2008: 40).

If the second ... one more analogy that allows us to connect our two theoretical devices: just as Mexcaltitan inhabitants are in themselves an "island" within their island, and as well as the street that circulates and delimits the interior of the island is inside from the island, to Monnet¹⁴ the human being "is in the middle of his environment" (of his fear too?), that is to say, he is in the environment, of which he forms part and is himself the environment of other beings (his microbes, for example), as long as the environment is considered "not as exteriority" or (solely and exclusively) as a world of objects. This requires Monnet to establish two modalities in the previous relationship: the subject-world orientation, where the individual "is a reality that acts in the world and transforms it effectively and materially"; and the world-subject orientation, in which the former "is a reality that the subject has to conceive and understand", which implies "analyzing how the subject" takes into account "the reality of the world, what is imposed on the subject" and even –we would say– how he realizes it and how he realizes that he realizes it. Thus, Monnet identifies two processes of the geographical performance of the subject: the interpretation of the world on the one hand, and the ordering of the same, on the other. The first is an ideal action "that influences the world only if the subject acts in the world" to transform it (a long-standing argument from Marx).

And dialectically, the world acts on the subject because it is still a biological entity governed also by the objective laws of Natura. It is, therefore, an inter-determination, since "a correct interpretation of reality guarantees the adaptation of the subject to his world, which is achieved when the subject manages to adapt the world to its objectives".

Following an idea of Monnet, one could ask if the different cultural groups that have been perpetuated in Mexcaltitan could do it because they incorporated their insular condition of isolation, their withdrawal, self-confinement, autarchy, marginality or their mythological identity as realities of their world. But why interpretation and not representation?¹⁵ This is because the second focuses on the mental images of the media objects of representations, while the first focuses on the "processes and actions that constitute the relationship with the world of individuals and groups in their respective livelihoods"; the ordering allows to reduce the field of human actions "to which they have as an objective or consequence the ordering of the means of life, including the individual scale to all the traditional scales of the geography". Thus, "Territorial or spatial organization realizes (real returns) an interpretation of the world" (italics in the original).

A brief description of Mexcaltitan

Given that the pre-Hispanic codices (such as the Boturini codex) do little to help describe Mexcaltitan (granting also its improbable identification with Aztlan), the earliest data available with which it is counted to characterize the site, was bequeathed to us by the chroniclers of the viceregal period. In historical cartography (for example in the Ortelius map, published in 1579 but apparently drawn around 1550) and in the *Sum of visits*, contemporary to this map, an "immense lake body" and four villages that "call all Mechuacan", among them "Mazcaltitlan",¹⁶ was mentioned. In the 17th century Matias de la Mota spoke of the area as a region of estuaries and lagoons "that abounding waters, unite and make a sea grown", opinion also held by Wigberto Jimenez Moreno in the 20th century. For M. Anguiano, "the inland waters that currently exist are, perhaps, the remains of a large lacustrine body", as a product of waterlogged fluvial, pluvial and maritime, whose fragmentation may have formed lagoons separated by these deposits (Anguiano, 1992: 29-30).

¹⁴All this section is a summary of Monnet (2011).

¹⁵Few years ago it was questioned what is called "exotic anthropology", that is to say, a discipline which, in order to avoid that the "«knowledge» produced about the investigated communities taking the form of locally unrecognizable representations that generally have minimal relevance to their modern difficulties", would require to be translated into concrete meaningful actions that improve living conditions in environments like Mexcaltitan. For a reconfiguring vision of the anthropological practice, see the notion "post-exotic anthropology" in Elie (2012: 1214).

¹⁶Rene Garcia Castro (2013: 138) clarifies that these villages were linked to Michoacan "Because fishes abound there, and fishers are the inhabitants", but not because they were part of the Michoacan region, much to the South.

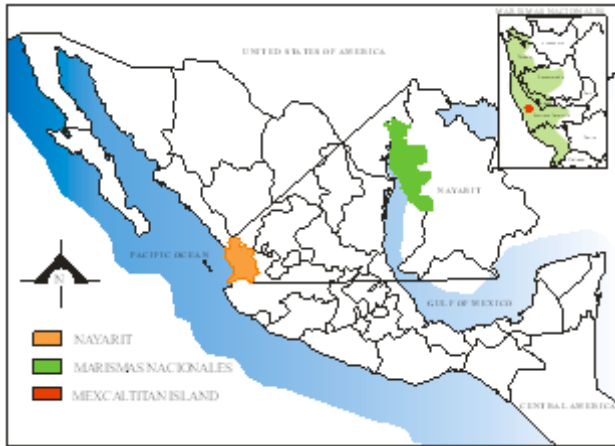


Figure 1 Geographic location of the Marismas Nacionales and the Island of Mexcaltitan, Nayarit

Source: self-made

Digital edition: Eduwies Hernandez Becerra.

At present the island of Mexcaltitan is located on the coastal plain of the Pacific Ocean in the State of Nayarit, forming part politically of the Municipality of Santiago Ixcuintla. It is located at $21^{\circ} 54' 21''$ north latitude and at $105^{\circ}28'31''$ west longitude, at an average altitude of 5 masl (INEGI, 2017). The island of Mexcaltitan has an oval shape with a perimeter of 1000 meters and a diameter of approximately 400 meters in length from north to south and 350 meters in width from east to west (Arana and Lopez, 1995: 9).

Its streets: two in a north-south direction, two in the east-west, an intermediate one between the western part of the latter and one more following its perimetral contour; the dimensions of its streets vary between 3 and 4 meters approximately of width, with the exception of the surrounding street, that measures 8 meters of width approximately. Most streets have high sidewalks that serve as channels in the periodic floods of the waters of the lagoon, as well as protection to prevent water from entering homes.

The climate on the island of Mexcaltitan is of the warm subhumid type with a regime of rains between June and October and of greater intensity in July and August, that cause an elevation sometimes considerable of the levels of the water that floods the different islets, including the island of Mexcaltitan. In June there is an average annual temperature of 26°C to 28°C , with an annual average maximum temperature of 30°C to 34°C . The direction of the winds is from northwest to southwest, with moderate winds.

The island of Mexcaltitan is part of the Marismas Nacionales, that have an area of approximately 200,000 hectares with wetlands, sand coasts, estuarine waters, swamps, mangrove forests, brackish coastal lagoons and water courses. In the coastal plain there is an abundance of inland water or water reservoirs, which is why it has been called the estuarine zone of Nayarit. It is formed mainly by estuaries, which together with the waters that come from the mouth of several rivers and streams, constitute lagoons that cover an area of 920 km^2 .

This region has 113,000 hectares of mangroves and estuaries (15-20% of all mangrove swamps in the country and the largest of its kind on the Pacific coast), small timber forest forests (cedars, oaks, others), non-timber (oil palm, water coconut palm, white mangrove, red, black and chinese) and pasture (RHRAP, 2009). Nayarit mangroves are the most extensive in the Mexican Pacific, especially the Teacapan-Agua Brava/Marismas Nacionales-San Blas. These ecosystems are the most productive. The main ecological factors that determine its presence are temperature, saline soils, silt and brackish or salt water.

In general, the current vegetation is tropical savanna, mangrove, palmar, medium subperennifolia forest, induced grassland that emerges spontaneously when the original vegetation, halophytic and aquatic vegetation is eliminated; vegetation of coastal dunes is dominated by creeping plants (*Ipomoea prescaprae*). The red Mangrove (*Rhizophora mangle*) is an evergreen tropical tree that is found specifically on the shore of coastal lagoons and brackish estuaries. It is located in streams of water and its salinity goes from hypersaline to brackish. The white Mangrove (*Laguncularia racemosa*), which mixes with the last examples of red mangrove, and becomes more abundant inland on raised soils, where tidal floods are less frequent. While in progression to the most frequently flooded sites, towards the weaker salty soils, less impregnated with water and more closed, dominates the black Mangrove (*Avicennia germinans*), which is considered dominant in the edges of coastal lagoons formed by depressions parallel to the Nayarita coast (CONANP, 2017). The Palmar or *Orbignya* forest occurs in disturbed sites, near the coast, on deep and well-drained sands. The dominant species is coconut oil palm (*Orbignya guacoyule*). Halophytic vegetation is located along the coast, at altitudes below 10 masl, on flat land subject to marine flooding and which have depressions in which the accumulation of salts is high and the drainage is slow.

The most common species of halophilic plants are *Salicornia spp.*, *Batis spp.*, *Sesuvium portulacastrum*, *Suaeda brevifolia*, *S. ramosissima*, *Salicornia europea*.

Currently, the fauna is classified as Neotropical, is diverse and presents a considerable number of endemic, migratory, endangered and economically important species. Among the relevant species is the jaguar (*Panthera onca*), river crocodile (*Crocodylus acutus*), cotorra guayabera (*Amazona finchii*), green macaw (*Ara militaris*). In the region, 98 species of mammals have been recorded. At least twelve species are endemic to Mexico and nine are in danger of extinction. These include the river otter (*Lutra canadensis*), wild boar (*Tayassu tajacu*), puma (*Puma concolor*), jaguar (*Panthera onca*), mountain lion (*Linx rufus*), ocelot (*Leopardus pardalis*), margay (*Leopardus wiedii*) and white tailed deer (*Odocoileus virginianus*).

The reserve is very attractive for birds, estimated between 300 and 400 species, that represent 40% of the total birds that exist in Mexico, have been counted more than 110 thousand beachers in a season, 10% of the winter population of Avoceta (*Recurvirostra americana*) and 5% of the total population of reddish (*Calidris canutus roseelari*) is present, besides being the southernmost population of the species. It is also part of one of the three most important transcontinental migratory routes (CONANP, 2017).

This coastal plain is furrowed by numerous rivers and streams that are born in the Sierra Madre Occidental and flow into the various lagoons or the Pacific Ocean. The main rivers that cross the region from North to South are, the Baluarte, Cañas, Acaponeta, San Francisco, Rosamorada, Bejuco, San Pedro, Rio Grande de Santiago and San Blas or Sauta. Communicated to the Pacific Ocean by the Boca de Cuautla, El Colorado and the deltas of the Santiago and San Pedro rivers. The island is located in the lagoon of Mexcaltitan, fed by the San Pedro river and by the sea that penetrates through the Mouth of Camichin located on the Pacific coast to 17.5 kilometers from the island. Access to the island is by land communication to the piers, from which you can reach the island only by water in motor boats or canoes.

The Batanga pier, located to the south of the island, is the one with the highest traffic, 6 km from Mexcaltitan, and to the north the Tinaco pier, smaller than the previous one, is only 2 km from the island.

The town of Mexcaltitan has a population of 818 inhabitants, of which 434 are men and 384 women, according to the 2010 INEGI census. Its population has as its main activity fishing, in the estuary area that surrounds the island there is fishing for various species of scales among which are snapper, sea bass, mojarra, curvina, constantino, sierra and lisa; and in the zone that surrounds the island year by year the shrimp are harvested, for what is its main source of economy.

Another economic activity is tourism, to whom offer the service of boats to transport the visitors to the island, also they offer tours by the canals and estuaries. Currently the island has basic services such as its own potable water network and drainage network, and in its vicinity a treatment plant is located where only the primary treatment is done.

The electric power line arrives from Santiago, crosses the lagoon, crosses the town behind the church and passes through the square to cross the lagoon to the opposite shore where the jetty of Tinaco is. It also has telephone network and internet. All supplies are purchased off the island and are transported by boat.

The island of Mexcaltitan, declared an area of historical monuments, comprises an area of approximately 0.090 square kilometers, depending on the natural conditions of the site.

It consists of 20 blocks comprising buildings of historical value of which one is destined for religious worship, being the temple of San Pedro and San Pablo, as well as buildings designated for educational purposes, welfare services, civil and military authorities.

The remaining buildings are privately owned buildings and the central square. The most representative buildings are the parish, built in the mid-nineteenth century with a neoclassical repertoire, the ejidal commissariat, the museum and the portals (*Diario Oficial de la Federacion*, 1986).

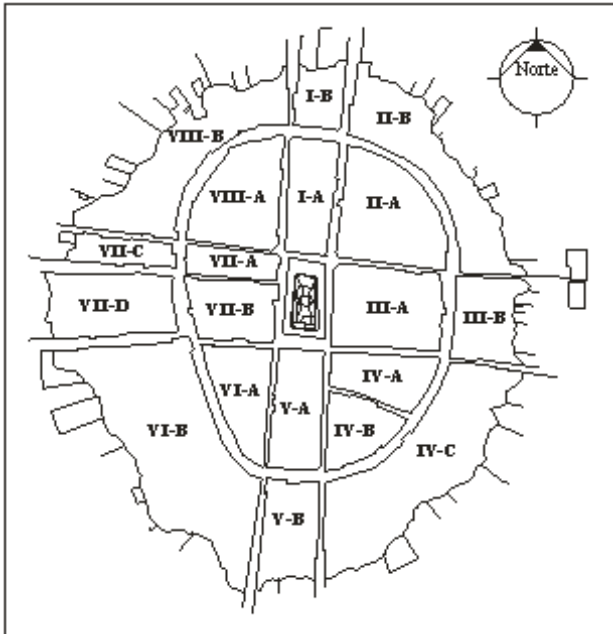


Figure 2 Urban trace of the island of Mexcaltitan, ca. 1980
 Source: redrawn with base in [https://es.wikipedia.org/wiki/Mexcaltitán#/media/File.D](https://es.wikipedia.org/wiki/Mexcaltitán#/media/File:Digital:Mexcaltitan1980_20x20.jpg)
 Digital: *Mexcaltitan1980_20x20.jpg*
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The urban pattern of Mexcaltitan, against what we supposed at first, is different with respect to Tenochtitlan.

The reason for this is that we initially observe in both settlements the same mythical-cosmogonic structure (the cross of the four courses and its centre, the myth of the bird devouring a serpent on an islet in the middle of the lake)¹⁷ which may possibly continue to be sustained, although, as Monnet (1991: 26) rightly states, in formal terms "it differs sensibly" since in the first case the cross is formed with four axes that two in two intersect perpendicularly, generating eight principal peripheral sectors surrounding the central open space,¹⁸ to whose square the main streets converge, "urbanistic concept typical of the European Renaissance and of the Spanish colonization";¹⁹ while in the second case the intersection of the two axes that form the cross occurs just above the site of the Templo Mayor, generating four sectors.

In addition, as Monnet points out, in Mexcaltitan the ring road, by its circular form, is associated rather with urbanistic and architectural traditions of the pre-Hispanic west (Monnet, 1991: 26), that is to say with the Teuchitlan tradition, to which the near archaeological site of Los Toriles in Ixtlan del Rio would belong, although this ring feature, not so frequent, was not completely absent in the rest of Mesoamerica, in spite of the fact that it is a terrestrial, rather than insular.

A model for Mexcaltitan. First approximation

For the mythology of the island. In accordance with the theoretical device given for the conceptual apparatus of Gilbert Durand, we summarize an exercise in the translation of the above categories and concepts, in the manner of a free reading that attempts to offer an interpretation of the symbolism of the urban trace of Mexcaltitan as a tangential approach to the object of study that we are really interested in: the subjective construction of the urban-architectural patrimonial appropriation sense and the mythical geography of the island of Mexcaltitan in distinct ego and exocentric communities. Of course, our reading falls within the exocentric gaze, reserving the double ego and exo look of other communities to our last theoretical device (the geography of interpretation), which we are just beginning to work on.

According to the analysis, our archetypology proposes three archetypal images that summarize the symbolism that we give to the trace of the island of Mexcaltitan, without prejudice to the possible meanings granted to it by the community of Chinese descendants, that of mestizo residents, that of tourists and eventually that of the Huichol ethnic group, and even that of other historians, archaeologists or anthropologists who are behind the historical, non-mythical origin of this curious urban configuration.

¹⁷According to Romero Gallardo (quoted at Monnet, 1991: 26), Huitzilopochtli would have given to the Aztec priest who would lead the pilgrimage, a stone that would "help him remember the sign", for a heron was carved on a serpent. A work that recreates the debate in this regard is that of Jesus Jauregui (2004: 56-61). Phil C. Weigand (1994: 363-381) has also echoed the debate with his "*Rerum Novarum*: the myth of Mexcaltitan as Aztlan".

¹⁸Generating two more subsectors in the west and southeast inner sectors, and even without considering the outer areas to this structure.

¹⁹In fact, some sources claim that the site named Mexcaltitan "is not mentioned before 1550 in the known colonial documents" (which were, in this case, the cartography and the *suma de visitas*), and in 1619 "the place is described briefly for the first time, as a grouping of 25 or 30 houses" (Monnet, 1991: 25). There is another reference on "Mezcaltitlan" in the Public Library of the State of Jalisco Juan Jose Arreola, Main Fund, Civil Branch, Real Hearing, Box 465, Record 20, 1695-1730, 12 pages.

These images are those of the port, the ring and the citadel (a very Platonic archetype), whose semic condensation or, to put it in words of Durand, whose constellations of meaning can be opened as much as the creative imagination allows, although to the point to avoid an emptying of unacceptable meaning and aware of the risk involved in a term-by-term reading of Durand's theoretical framework.

The Port. In this way, the first archetypal image will be that of the piers, critical points of contact of and with the island, that although they exist by all the surrounding perimeter, are four structurally main, located precisely at the ends of the axes that define the structure of the cruciform vial of the island, that is to say, the four pairs of streets that, like swords or knives, depart the village in eight peripheral sectors and a center, thus related to the cardinal points (metaphor of the cosmos). The island is a microcosm that nevertheless remains open to contact with the outside, to the four directions, that is to say to the planetary and even cosmic ecumene.

The piers, the port, symbolize at the same time all kinds of antithetical figures that tend to separate and distinguish from the unknown, to define what is above (the luminous, the island) with respect to its aqueous substrate (the sea),²⁰ to distinguish the exterior from the interior, to communicate polemically both: the outside and the inside, the tension between the inner self and the other outside or between the egocentric communities living on the island and the exocentric, as well as tourists like any other nonresident stranger (the Huichol ethnic group, researchers). Its principle will be that of contradiction; the axial symmetry, bilateral or reflective, its geometrical quality, as manifested in the layout of the rectilinear streets, mirrored with respect to the two crossed axes that mark the north-south and east-west courses.

When talking about the imaginary insular anti-utopic, Oscar Galindo observes that "the islander perceives its space sometimes, no longer as a place of dreams, but of confinement. Hence the island's irreversible vocation. Let's say that the islander's utopia is usually continental" (Galindo, 2000: 170).

²⁰In Huichol myths the sea is the habitat of "all manner of dangerous monsters", such as whales, winged serpents, vampires and chupacabra; that is to say, the kind of beings proper to the Durand's diurnal regime (Neurath y Pacheco, n.d.: 5).

²¹In the tradition of huicholes, when sea monsters (a water snake for example, nictomorph symbol of diurnal regime, according to Durand) leave the sea, they do it to "devour people or to flood the world". Note that in Mexcaltitan with some frequency, in the rainy season, water floods both the circular street and the rectilinear (Neurath y Pacheco, n.d., 5).

He also adds that "Faced with the danger of the disintegration of subjectivity, the characters are settled in that space [the island], which serves as both a refuge and a stage" (Punte, 2013: 131). From the shores the surrounding luminosity is better seen until the green horizon, which is difficult being in the interior of the island, between the buildings; the sunset is the prelude to the region of unfathomable darkness, the realm of fear, the kingdom of the death of the sun, which, if it pleases the gods, reappears the next day, illuminating the earth again. *The ring.* The street that surrounds the village and protects its inhabitants, but at the same time welcomes the strangers in a synthesis in which the "contact of realities that appeared different and distant" is realized (Gracia, 2001: 149), constitutes another of the memorable features of the island. By belonging to the Nocturnal regime of images, defined by cyclic time (such as the summer floods that turn the Mexcaltitan's streets into waterways),²¹ it delimits both the inside and the outside, the intimate fraternal and the distant near: the fear of the dark forces floods of architecture colour, that united with the green interior produces a surrounding environment resembling a redoubt of tranquility and happiness (metaphor of paradise). Thus, the second archetypal image will be the ring, whose principle will be that of the *coincidentia oppositorum*, and equidistance and rotational symmetry, their geometrical qualities, accused by the meager dimensions of the place: "the island, when small, gives the sensation of a finite and describable space that can be perceived, traversed and measured individually, which allows their appropriation not only visual but personalized" (Ainsa, 2000: 8). Each resident, each tourist, recreates his *locus amoenus*, his ideal setting, the cozy maternal womb, his particular appropriate eden, and appropriate according to his longing for happiness, since "without the isolation that a small island brings, one does not get the perception of disconnection from the daily sufferings" (Cardona, Azpelicueta y Serra, 2015: 728) hence "The search for the paradisiacal island can be seen in the predilection for island tourist destinations" (Cardona, Azpelicueta y Serra, 2015: 717).

Hence also that if you leave that, the uterus becomes the fall in the world of exteriority.

However, the proximity, the sense of the siege can lead to problems: "People who can not physically or psychologically escape the island or its past tend to objectify the other and the convergence of people with this attitude arises the conflict, giving situations of masochism, sadism or indifference, and the scapegoat is the fear of the human condition of one's own conscience" (Bonetto, quoted at Cardona, Azpelicueta y Serra, 2015: 724). Fear again. It will have to be exorcised.

The Citadel. The siege is transposed, equidistant, the island within the island, the place of peace, harmony and veneration, the sacred space in which myth is reiterated through rituals (not in vain, as stipulated in the famous document of Philip II, the square and the church were to be drawn "in square shape" and "full block", respectively, "so that no other building is attached to them, but the one belonging to its comfort and adornment");²² and more than that, this place recovers heroized, for, as Diez de Velasco affirms, "thanks to the myth, the alchemy of overcoming the sad and degenerate contemporary age is transmuted into the prestigious heroic age" (Diez, 1997: 9); interior space as geometric and symbolic center protected and protective (metaphor of the refuge).

The centrality condenses the point of communication with the mystery, with the sacred, impels to feel "center" of the myth, but a myth renewed, recreated, readjusted, updated to the present circumstances, since the myth does not subsist in the time in pure state –even at the time it was written– (Diez, 1997: 5).

The myth,²³ through its rituals, is transformed, secularized, trivialized, but there remains a region that is difficult to think is franqueable: the will to believe "centre" (or "cradle of Mexicanness" in the case at hand) and "to be devoured" by the sacred unfathomable (Castro, 2012: 59).

The archetypal image will be the citadel, with emblematic buildings of celestial and earthly powers, symbolizing the spiritual shelter (and material?) or the celebrated tradition (the local museum) and in which they are confused (never melt) the resident and the stranger who are tolerated harmoniously but interested in a tacit contract, in a sort of identity complicity.

So, its principle will be the consonance, the concord, while the central symmetry is its geometric quality, for all converge to the innermost inward. The table showing here attempts to capture the above.

It may be perplexing to make analogies between Durand's model and our first approach to Mexcaltitan's analysis, and – given our research lacking primary sources, which would be the subject of another project and not the present one – may even be an exercise as much sterile as overextended, but at least has the value of trying to establish an alternative meaning through iconographic redundancies of the urban trace beyond the politically interested myth, although with the point of connection of cyclical temporality "that refers to Mother Earth as a common centre of all beings. This is an ontology of successive circles, spheres, and closures; of the circumference as a perfect and finished form and, at the same time, of myths that convey the notion of cyclical time that is characteristic of the seasons, the rhythm and the plot of death".²⁴

²²Clauses 112 and 119 of the Ordinances on Discovery, New Population and Pacification of the Indies, in: http://www.biblioteca.tv/artman2/publish/1573_382/Ordenanzas_de_Felipe_II_sobre_descubrimiento_nueva_1176.shtml. Consultation: July 9, 2017.

²³It is surprising that in the Huichol myths, the place of origin of this ethnic group is considered as the center of a world where the land "floats on the sea, like a large island, under the consideration that water surrounds the entire surface of the earth"; the sea was the underworld, place of the ancestors; when they left it, the world was dark, the night was eternal (nocturnal regime). From the ritual sacrifice the god-men are reborn, the light is reborn (diurnal regime) (Neurath y Pacheco, n.d.: 3-4).

²⁴Castro (2012: 53 y 57) points out that in Durand redundancy "operates ritually when it comes to the gestural; is mythical when it involves the linguistic and is iconographic when applied to images".

Image Organizing Structures		
Diurnal Regime of the Images	Nocturnal Regime of the Images	
Schizomorphic Structures	Synthetic Structures	Mystic Structures
Dominant Reflections and Action Schemes		
To Distinguish	To Unite	To Confuse
The metaphor of the cosmos Axial Symmetry	The metaphor of paradise Rotational Symmetry	The metaphor of the sacred refuge Central Symmetry

Table 1

Source: reworking from Tome (1987: 19) and Ocampo (2008: 34-40).

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Conclusions

In this article we have dealt with the mythical aspect of Mexcaltitan considering elements such as: 1) the theme of the insular imaginary from a tight symbolic hermeneutic perspective, both in the historiography (the utopian narrative), the mythology in itself (the fantastic story) and in the ethnography (the story of travels); 2) the appropriate model for the theoretical-methodological approach of this imaginary from our "point of observation", for which we turn to the anthropological structures of the imaginary of G. Durand; and 3) we briefly advance some theoretical assumptions of the geography of interpretation, and some J. Monnet's critical-analytical elements in an attempt to understand the extraordinary peculiarity of Mexcaltitan's urban trace in a first reading. In the future, a second approximation of the subjective processes of appropriation of the urban-architectural patrimonial space and of the mythical geography by ego and exocentric communities must be made. This second sight properly will constitute the ethnography of the island.

Through the archetypal images of the port, the ring and the citadel, in this article we try, therefore, to open the interpretation of the island of Mexcaltitan towards other paths, rather than completely replacing, are linked to the discourse of the myth of origin (Aztlán = Mexcaltitan, "cradle of Mexicanness"), constructing the idea of an even more primordial spatial archetype: the urban structure of the mythical insular imaginary of classical Greek antiquity, which, however, is not the same as affirming, abusively, the historical existence of direct contacts between the Greeks and the ancient Aztecs of Aztlán, but rather to emphasize that in the phenomenology of religion, in the universe of psychology or in the world of creative imagination, there could be, in the case of the insular universe, and only in it, a same spatial structure –at least similar– of the relationship between the human being and his environment, or a common cultural substratum, to put it in Ekman's words (Ekman, 2009: 294), when geographical conditions are in a way similar, in this case islands. Our paper aims that the concentric urban pattern was relatively common in lakes, the sea and even terrestrial environments, in some pre-Hispanic and European cultures (Mythological Greece, the historical Spain of the Chalcolithic and the Bronze Age, the "causedwayed Enclosures" of some Anglo-Saxon countries, and the Teuchitlan tradition) (Diaz-Montexano, 2010).²⁵ The reason for this still remains open to research, and even more so its connection with the myth of Atlantis, which also remains without conclusive and definitive scientific demonstration.

The island, in short, is separation and its centre is return (Castro, 2012: 59). We must remember the previous warning that our reading has been set from our exocentric perspective, so that to that extent must be judged. This first interpretation, which in any case must be taken as a hypothesis to be contrasted with that of the other ego and exocentric communities (second approach, in progress), tries to fit in the line of Durand, although, quoting Gracia, does not pretend to become a convention, because "every «convention», although animated by the best intentions of «symbolic defense» is fatally dogmatic", as a symbol does not mean, but evokes (Gracia, 2001: 142-143).

²⁵According to Jose E. Marquez, quoted by Diaz-Montexano (2010), the wells and trenches of circular forms associated with towns, whose oldest vestiges belong to the end of the Neolithic period, gradually spread through the Atlantic "facade", although they were losing the condition of permanently inhabited territories. Weigand (1996: 185-245) suggests that the early phases of

the Teuchitlan tradition, from the Preclassic to the early Classic, were dominated by concentric urban patterns that, over time, under the influence of the Bajío and the north-central Mexico, would have been gradually replaced by reticular patterns, which shows that the circle could have been an even more primitive archetype than the square or rectangle, at least in the West of ancient Mexico.

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† Researcher contributing as first author.

Introduction

Text in Times New Roman No.12, single space.

General explanation of the subject and explain why it is important.

What is your added value with respect to other techniques?

Clearly focus each of its features

Clearly explain the problem to be solved and the central hypothesis.

Explanation of sections Article.

Development of headings and subheadings of the article with subsequent numbers

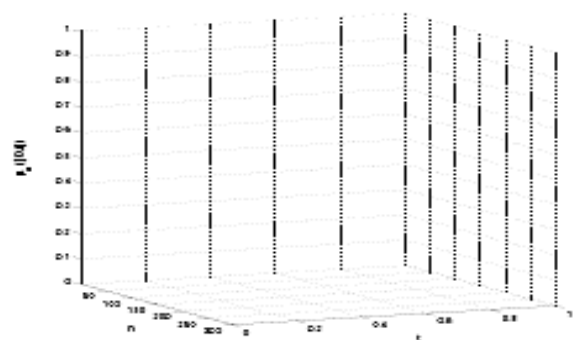
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Products in development No.12 Times New Roman, single spaced.

Including graphs, figures and tables-Editable

In the article content any graphic, table and figure should be editable formats that can change size, type and number of letter, for the purposes of edition, these must be high quality, not pixelated and should be noticeable even reducing image scale.

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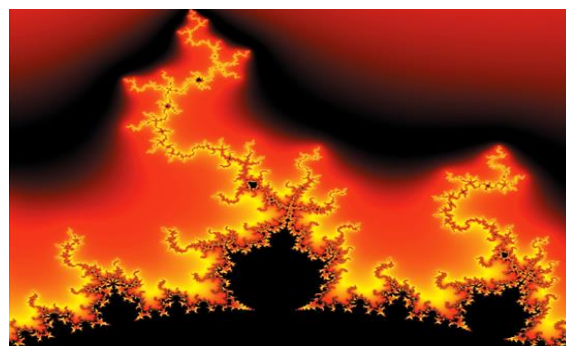


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Each article shall present separately in **3 folders**: a) Figures, b) Charts and c) Tables in .JPG format, indicating the number and sequential Bold Title.

For the use of equations, noted as follows:

$$Y_{ij} = \alpha + \sum_{h=1}^r \beta_h X_{hij} + u_j + e_{ij} \tag{1}$$

Must be editable and number aligned on the right side.

Methodology

Develop give the meaning of the variables in linear writing and important is the comparison of the used criteria.

Results

The results shall be by section of the article.

Annexes

Tables and adequate sources

Thanks

Indicate if they were financed by any institution, University or company.

Conclusions

Explain clearly the results and possibilities of improvement.

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Use APA system. Should not be numbered, nor with bullets, however if necessary numbering will be because reference or mention is made somewhere in the Article.

Use Roman Alphabet, all references you have used must be in the Roman Alphabet, even if you have quoted an Article, book in any of the official languages of the United Nations (English, French, German, Chinese, Russian, Portuguese, Italian, Spanish, Arabic), you must write the reference in Roman script and not in any of the official languages.

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Each article must submit your dates into a Word document (.docx):

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Abstract

Keywords

Article sections, for example:

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2. *Description of the method*
3. *Analysis from the regression demand curve*
4. *Results*
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