# Architecture at Historic Centre of Zacatecas: Foreign Influences along the Porfiriato (1877-1911)

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**Abstract:** As it is well known, due to the Spanish domination of great part of the American continent throughout the 16th, 17th, 18th and 19th centuries, the architecture of the city of Zacatecas, as it happened with many cities of México, was undoubtedly influenced by the traditional construction of the conquerors. However, until now it hasn't been really questioned what other foreign influences are in fact present in the Historic Centre of this mining city, a place that was included in 1993 on the UNESCO World Heritage List.<sup>1</sup>For this reason, the main objective of this paper is to talk about other foreign influences that are present in the architecture that is located in the so-called Historic Centre of Zacatecas, which include public and private buildings that were built or extensively remodeled between the years of 1877 to 1911.

Keywords: Historic Centre of Zacatecas, architecture, city of Zacatecas, foreign influence, Porfiriato

#### The city of Zacatecas along the Porfiriato

The atmosphere that prevailed in the city of Zacatecas throughout the last years of the nineteenth century, was the combination of many factors. Porfirio Díaz became president of México in 1876 and with him, finally came a period of peace and prosperity to the nation. The modernization of urban life and the improvement of the conditions of the country's capital cities, were some of the main goals to accomplish. Many actions were required to achieve these objectives.

Historian Daniel Cosío Villegas stated that in order to understand the modern and contemporary history of México, it is necessary to carefully analyze the regime established by Porfirio Díazover 31 years. This period is known in Mexican history as Porfiriato. President Díaz contributed to the modernization of the country in many ways: he created the banking organization; furthermore, he fostered industries in which machines prevailed over human muscles. As a result, there were many social and economic changes between 1877 and 1911.<sup>2</sup>

During these years, the Mexican nation could see and experience the benefits of modern life: electricity, telephone, trolley cars. The infrastructure required to establish the railroad along the other half of the country was a reality, and this fact contributed to the arrival into the Mexican capital cities not only of products and novelties for daily life, but of builders from across the northern border and other places of the country.

The architecture that was built in México during Porfirio Diaz' regime then, was a result of all these facts. As it will be explained in this paper, there are several reasons why the construction built in those days along the Mexican country experienced great influence from other nations. Some of them are undoubtedly linked with what happened during the XIX century to the school that granted with the architecture degree to the students interested in this discipline, and gave them the proper instruction to fulfill the needs of the Mexican society. This institution was known like *La Academia de San Carlos* and it was established in the capital city of the country. The next section will provide an overview about what happened at La Academia de San Carlos before the XX century. The main idea is to be focused in the foreign ideas that arrived from abroad and the way they influenced the institution.

#### Foreign influences at Mexican architecture school

Some writers have stated that La Academia de San Carlossince the Independence of México had been led by Spanish teachers who had acquired political strength because of their links with the Scottish masonic lodge. There were profound changes in the institution throughout 1844, and Joaquín Heredia, principal of the Architecture School, made the first regulation for the career and he decided that it would be divided into three main areas: drawing, construction and composition. After these transformations it was possible to decide the subjects that the academic program would include in 1847, and again, it was modified in 1857. During this year, some changes were approved to make new academic programs for some careers like Architecture and Civil Engineering. In 1865 the Italian and PHD Javier Cavallary was appointed as the new principal at Architecture school.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup>UNESCO (2023), World Heritage Convention, *Historic Centre of Zacatecas*, available in: https://whc.unesco.org/en/list/676, last review: December 31st, 2023.

<sup>&</sup>lt;sup>2</sup> Cosío Villegas, Daniel (1955-1972), Obras 3, Historia Moderna de México: El porfiriato, México: El Colegio de México, pp. 15-24.

<sup>&</sup>lt;sup>3</sup> Garibay, Roberto (1990), *Breve historia de la Academia de San Carlos y de la Escuela Nacional de Artes Plásticas*, México: División de Estudios de Posgrado, Escuela nacional de Artes Plásticas, UNAM, p. 24.

The Academia de San Carloswas closed on May, 1863, and reopened in June of the same year, although with the name of *Academia Imperial de las Nobles Artes*. In this year, México was already ruled by an emperor from Austria, Maximilian of Habsburg, who wanted to support the construction of this recently born nation. In 1867, Benito Juárez became president of México and La Academia de San Carlos changed again its name to *Escuela Nacional de BellasArtes*. With all these modifications there was confusion between the careers and this is why, Architecture school became part of the Engineering school, institution who granted the students with the degree. During this period architecture was considered as another engineering study, a situation that would affect in a huge way the performance of the profession in the Porfiriato. In 1876, Architecture school went back to Escuela Nacional de BellasArtes, with the academic program designed by Caballari, which was changed until 1897. In this year, it was decided that the studies would last nine years, in order to fulfill the requirements that the career had then in Europe. This change was introduced by new teachers as Carlos M. Lazo, Carlos Ituarte, Emilio Dondé, Federico and Nicolás Mariscal. All of them were Mexican and some had studied in European schools. Foreigners like MaximeRolsin and AdamoBoari became teachers at Architecture school too. All of them introduced into the teaching the transformations that were taking place in the world scene, this meant imitating the Parisian model. The treaties of Alberti, Algarotti, Aviler, Durand, Palladio, Reynaud, Scamozzi, Serlio, Vitruvio and Viollet-le-Duc were then recovered and reviewed.<sup>4</sup>

As a result, one of the foreign influences that La Academia de San Carlos and the Escuela Nacional de Bellas Arteshad at least since 1865, came from the Italian Javier Cavallary and Adamo Boari. However, it must be considered too the teachings of the French Maxime Rolsin and Mexican architects like Antonio Rivas Mercado, professional who was undoubtedly influenced by the theoretical French principles. He shared his ideas with Samuel Chávez and Nicolás Mariscal, famous theorists and architects who were in charge of the new study plan for the architecture career in 1902. This academic plan worked while Rivas Mercado was the director of the Escuela Nacional de BellasArtes, and it had evidently great French influence, beside the fingerprint of Antonio, who was appointed as the director of the school at January 6, 1903.<sup>5</sup>

It must be said that in 1864, when Rivas Mercado was 11 years old, his father Don Luis Rivas sent him to London to obtain further education. Rivas Mercado began his studies at the Baylis House school (England), and then he moved to France where he studied the secondary school at the LiceoImparcial in Bordeaux, and finally he attended to architecture school at Les Beaux-Arts in Paris until 1878. Antonio came back to Mexico and he had to take a test at Escuela Nacional de BellasArtes in 1879 to work as an architect, the one that he approved in a remarkable way.<sup>6</sup>

Beside this, there are other facts that must be considered. As Marta Olivares explained, the 19<sup>th</sup> century's bourgeois architecture responded to three main features that were basically born in England and France: the first one affirmed that the architect had to fulfill the needs and requirements of the society living in those days, this idea was created by the English Pugin, Ruskin and Morris; the second one talked about the rationalist or structural approach of the architecture discipline, although this thinking was born in England, it was perfected by the French Viollet-le-Duc and faithfully repeated by Auguste Choisy; finally, the academic architecture teaching was spread around the world, and the most remarkable example was undoubtedly L'École de Beaux Arts.<sup>7</sup>

As a summary it might be said that the architects who got a degree at the Mexican school of architecture and were working to fulfill the needs of the nation along the Porfiriato, in all their studies had without any doubt, foreign influences. This is the case of Italy, because of the teachers Javier Cavallary and AdamoBoari; of France, because of MaximeRolsin and the Mexican Antonio Rivas Mercado who attended the architecture school at Les Beaux-Arts in Paris, a professional who influenced with his ideas to other Mexican teachers like Samuel Chávez and Nicolás Mariscal. Rivas Mercado hadalso been studying in England, as a result, some of his experiences at Great Britain had been equally introduced at the teachings of Escuela Nacional de BellasArtes.

As has been explained, Mexican architecture hadin fact in the XIX century, foreign influences because of the teachers and leaders who have been sharing their knowledge and ideas to their students at La Academia de San Carlos and the Escuela Nacional de BellasArtes. However, as it will be clarified in the next section, there were some other reasons why the architecture produced in México along the Porfiriato had great influence from other countries in its designs, construction systems and materials. Equally in this regard, La Academia de San Carlos and Escuela Nacional de BellasArtes played an important role.

#### Architects and civil engineers along the Porfiriato

The static concepts of style and beauty were extremely important for the architects in México until the last years of the XIX century. Furthermore, the resolution of those students who obtained their degree at La Academia de San Carlos, was that the buildings built should be carried out with a great artistic quality, enough to be considered works of art, or the necessity

<sup>4</sup> Garibay S., Roberto (1990), Breve Historia de la Academia..., Op. Cit. pp. 128, 131, 138.

<sup>5</sup> Olivares Correa, Marta (1994), A propósito de la vida y obra de Antonio Rivas Mercado, tesis para obtener el grado de Doctor en Arquitectura, México: Universidad Nacional Autónoma de México, Facultad de Arquitectura. Available in:http://132.248.9.195/ppt1997/0209709/Index.html, last review June 26th, 2023, pp. 48, 49, 272, 273, 279, 280.
<sup>6</sup>Ibidem, p. 136.
<sup>7</sup>Ibidem, p. 40.

couldn't be fulfilled. This radical position seriously affected the profession. The engineers meanwhile, were prepared to satisfy the most urgent social needs (workshops, schools, train stations), leaving the beauty in a second place, although in fact they were taught with minimal artistic knowledge. The architects considered this an offense against the main feature or their career: creating beauty. Their minds were closed although there was an urgent need of solving social problems. This is why the architects were left behind along the first stage of the construction of the modern and nationalist Mexico that was required in those days. The engineers on the other hand, fulfilled the task: solidity and good construction quality, economy and speed of execution. Among them there were military engineers that after the ending of the wars, and during the period of peace offered by the Porfiriato, were a labor demanding force. Porfirio Diaz's own son was a military engineer.<sup>8</sup>

The statistics about the construction professionals reflected this situation. In 1868, when the Society of Engineers and Architects of Mexico was founded, of the 39 first members, 14 were engineers, 16 were engineer-architects and 9 were architects. In 1895, 80 architects and 718 engineers lived in Distrito Federal (nowadays México City). In 1868 there used to be three engineers by each architect; in 1895, there used to be nine by each architect. In 7 years the growth of the engineers was 900 percent, a comparatively higher number.If14 engineers were registered in 1868 and that the number increased to 718 in 1895, this mean a growth around 4000 percent. The number of engineers was overwhelmingly higher than the architects, and it seems that the situation didn't change along the Porfiriato. The distribution of professionals along the territory showed that most of them used to work in the capital city of the country in comparison with the rest of the nation: in 1918 the 88 percent of them lived in Mexico and the 22 percent in the rest of the Republic.<sup>9</sup> According with this source, the concentration of the architects was absolute, this means that all of them but one – Robleda Guerra who worked in Puebla –, used to work in the capital city of the country.

More recently, it was found that the architect Luis F. Molina, who studied at Escuela Nacional de BellasArtesleft Mexico City in 1890. This professional was working hard along those years at Culiacán, Sinaloa: he helped to introduce remarkable changes in this place accordingly with the modernization that was taking place in most of the capital cities of the country. Molina had the support of the governor of Sinaloa, who was close friend of the president Porfirio Díaz.<sup>10</sup>This means that few architects who had got their degrees in Mexico City were working along the Porfiriato in other cities of the nation. However, they were few in comparison with the growing necessities of the county.

All this information allows us to understand why foreign architects were very welcome to Mexico when finally the country experienced some peace, and the rebuilt of the nation took place, along the Porfiriato. As it has been seen, the number of Mexican architects was reduced, and most of them were working in Mexico City, although significant changes were taking place at the urban scene of other capital cities: lot of houses were built or modified taking advantage of the wide variety of new mass-produced materials, direct result of the industrial revolution that had arrived to these lands; new technologies and infrastructures such as electric light or pipes to separate the clean and dirty water, were suddenly available to solve the daily needs; the projects and construction of a great number of buildings such as theatres, prisons, markets, hospitals, among others, were suddenly required in most Mexican capital cities. As a result, there was an enormous need for professionals related with construction, like architects and civil engineers.

Although the majority of the licensed architects lived and worked in Mexico City, this doesn't mean that the construction activity stopped in the rest of the country. The truth is that new buildings were built, remodeled or re adapted. The rebuilding wave was also taking place also in other capitals of the Mexican nation. This was the case of the city of Zacatecas.

#### Construction in the city of Zacatecas throughout those years

The papers and books that some academic researchers have written about the buildings and urban infrastructure developed in Zacatecas along the Porfiriato, show that between 1877 and 1911 without any doubt, there was a remarkable construction activity in this city. This surely was an outcome, not only because the rebuilt of the country was taking place, but because the cities were the perfect places to show the structures and hierarchies of a society. The desires of a national identity turned towards the setting up of the urban spaces, introduction of new infrastructures and architectural languages, change and arrangement of land uses, administration, operation of institutions, consolidation of the city space and public scope. The individuals that had the power to change the appearance, the urban façade, as symbol of their power, worked to make it fit to their interests and made everything they could to create an image according with their ideological thoughts about the world.<sup>11</sup> As a result, changes took place in the urban environment of the city of Zacatecas, and some of them involved the construction of new buildings. It has been found that between 1877 and 1911, the next public buildings were built: González Ortega

<sup>&</sup>lt;sup>8</sup> Vargas Salguero, (coord.), Chanfón Olmos, Carlos (coord. General) (1998), *Historia de la Arquitectura y el urbanismo mexicanos*, Volumen III, Tomo II, México: Facultad de Arquitectura, División de Estudios de Posgrado, UNAM, pp. 99-101.
<sup>9</sup>Ibidem, 280-283.

<sup>&</sup>lt;sup>10</sup>Sandoval Bojórquez, Martín, *La arquitectura en Culiacán durante el Porfiriato: 1880-1910*, Profesor e investigador Universidad Autónoma de Sinaloa, available in: http://historia.uasnet.mx/rev\_clio/Revista\_clio/Revista23-24/3\_ArquitecturaCuliacanPorfiriato.1880-1910\_MartinSandoval.pdf, last review: June, 2014, pp. 1-19.

<sup>&</sup>lt;sup>11</sup>Ribera Carbó, Eulalia (2006), "Imagen urbana, nación e identidad. Una historia de cambios y permanencias en el siglo XIX mexicano", México: Instituto de Investigaciones Dr. José María Luis Mora, available in: https://dialnet.unirioja.es/descarga/articulo/2936692.pdf, last review: April, 2015,pp. 203-206.

Market, New Hospital, Fernando CalderónOpera House, Meteorological observatory, North tower of the Zacatecas Cathedral, Animal slaughterhouse and Centenario Market.

Furthermore, at least twenty three houses located on Hidalgo Avenue - the most important street of the city in this period -, were deeply and evidently remodeled or even rebuilt during those years. This is remarkable because some of these residences still remain on the same street, where other important buildings like the Cathedral of Zacatecas, Fernando Calderón Opera House and González Ortega Market are placed. These dwellings are the context that surrounds these beautiful public buildings. It is important to explain that Hidalgo Avenue along the Porfiriato was the result of the union of six streets that were named as it follows from south to north: Merced Nueva, De la Caja, Frente al Mercado, 1<sup>a</sup> deCatedral, Jardín Hidalgo and Tres Cruces. The research related with the modernization of the houses located on Hidalgo Avenue that belonged to the Zacatecan elite along the Porfiriato, included the first five streets. The modernization of the residences implied that they were entirely built from their foundations, or extensively remodeled.<sup>12</sup>It was also considered in the investigation, the house that it is located at the ending of the De Rosales alley (little street that comes up from Hidalgo Avenue), because there is proof that it was designed and built by one of the foreign architects that were working at the city of Zacatecas in the Porfiriato. In the next section it will be clarified what builders were working in this place between the years of 1877 to 1911.

#### The architects and engineers in Zacatecas along the Porfiriato

As it has been explained, due to the old fashioned ideas that most Mexican architects decided to keep during most of the years that Porfirio Díaz was the President of México, the engineers finally satisfied the urgent needs of the Mexican society. They were able to gather in their work: good construction quality, solidity, economy and speed of execution. Many of them were by the way, military engineers. It is clear that although most of the engineers and architects holding a degree could be located in México City, some of them were actually living and working in other states of the country. As a result, it was necessary to find out if at the city of Zacatecas, there were some of these professionals working between the years of 1877 to 1911.

Books, archives, photographs, letters between relatives, newspapers, first stones of some the buildings, architectural plans and layouts, beside other documents of those days, helped us to discover how many engineers and architects were in fact working inthe city of Zacatecas. These sources also provided in some cases their names, birth places, institutions that granted them with the degree or places where they acquired their building experience. Because the main aim of this paper is to find out if there is actually a foreign influence in some of the buildings erected in the city of Zacatecas, it was necessary to dig in the background of these professionals.

According with Lidia Medina, during the Porfiriato, there werea significant number of engineers in the city of Zacatecas. The names and their specialties are shown in the Table 1.

Name	Degree	
Alberto Carrillo	Engineer surveyor	
Adolfo Palacios	Engineer surveyor	
Julio Peredo	Engineer surveyor	
Luis Correa	Engineer surveyor	
Leonardo Muñoz	Engineer surveyor	
Reginaldo García de la Cadena	Engineer surveyor	
Alberto Jaime	Mining engineer	
Francisco Zárate	Mining engineer	
Lorenzo Floresí	Mining engineer	
Manuel Valerio Ortega	Mining engineer	
Pedro Espejo	Mining engineer	
José Árbol y Bonilla	Engineer surveyor and Tester	
Luis G. Córdova	Civil engineer	
Hamman a silda Cama illa	Surveyor and Mining	
HermenegildoCampillo	Engineer	
	Surveyor and Mining	
Ignacio Hierro	Engineer, Professor of	
	Medicine, Pharmacist	
AmbrosioRomo	Engineer	
Carlos Suárez Fiallo	Engineer	

#### **Table 1:** Engineers working in the city of Zacatecas between 1877 and 1910

Source: Medina Lozano, Lidia(2012), *El tránsito urbano hacia la modernidad. Proceso de transformación en Zacatecas,* 1877-1910, México: Textere Editores S.A. de C.V., Universidad Autónoma de Zacatecas, Anexos.

<sup>&</sup>lt;sup>12</sup>Gaytán Ortiz, Inés (2018), *El mundo desde una calle. La Avenida Hidalgo de la ciudad de Zacatecas y la modernización de la casa de élite porfiriana*, México: Texere Editores, S.A. de C.V, Crónica del Estado de Zacatecas, pp. 308-373.

It is necessary adding to this list other engineers' names: JoaquínLorenzana y Rivero, councilor in charge of the Finance Commission and Material Improvements around 1890;<sup>13</sup>Luis C. Espinoza, who around 1910 designed the Centenario Market,<sup>14</sup> and Ildefonso F. Flores, who was part of the commission that inspected the vault of the old Fernando Calderón Theater.<sup>15</sup>

Throughout the research focused on the modernization process of the elite houses located at Hidalgo Avenue in the city of Zacatecas along the Porfiriato, carried out by me between the years of 2014 to 2016, I was able to find the names of the architects who they worked in this city during these 31 years (1877-1911). As it may be seen in the Table 2, they were few in comparison with the number of engineers. Two of them were foreigners, and another one was a Mexican that got his degree at the United States of America.

Table 2: Architects working at Zacatecas state between 1877 and 1911					
Name	Degree/Profession	Nationality	School who granted the degree		
José Noriega	Architect and Civil Engineer	Mexican	Academia de San Carlos		
Rafael Ortega	Architect	Mexican	Civil Engineering school, San Francisco, California		
George Edward King	Architect	British	Unknown		
George Edward King Jr.	Architect	British	Architectural college in Philadelphia (1894-1896)		

Source: Made by the author based on Gaytán Ortiz, Inés (2018), El mundo desde una calle ... Op. Cit., pp. 397-404.

Now it is time to clarify who were their designers of some of the public and private constructions, built or extensively modified in the city of Zacatecas along the Porfiriatoas well as the foreign influences that they had.

#### Buildings in the city of Zacatecas along the Porfiriato and their foreign influences

According to what has been explained until now, it wasn't a surprise to find that in the city of Zacatecas, the engineers designed and built most of the main public buildings between the years of 1811 to 1911. The Table3 gathers the names of these buildings, their designers and their professions, as well as the years that the construction lasted.

Table 3: Public buildings built in the city of Zacatecas throughout the Porfiriato and their builders				
Name of the building	Designer/constructor/contractor	Profession	Year	
González Ortega Market	Carlos Suárez Fiallo	Military engineer	1886-1889	
New Hospital	José Noriega	Architect	1890-1901	
	George Edward King	Architect		
	George Edward King Jr.	Architect		
Fernando Calderón Theater	Fernando M. de Prez	Contractor	1891-1897	
	The construction was supervised by			
	Luis G. Córdova	Civil engineer		
Meteorological Observatory	The designer was Luis G. Córdova	Civil engineer	1904-1906	
Weteofological Observatory	The constructor was Alberto Carrillo	Engineer	1701700	
North tower of the	DámasoMuñetón	Renowned		
ZacatecasCathedral	Damasolviuleton	empirical builder	1904	
Zacatecaseatheurai		(alarife)		
	Antonio Zirión Sarabia and Francisco	Unknown		
	Orla and Comp. S. en C.			
Animal slaughterhouse	The construction was supervised by	Civil engineer	1908-1911	
	Luis G. Córdova		1,000 1,111	
	and	Renowned		
	DámasoMuñetón	empirical builder		
		(alarife)		
Centenario Market	Luis C. Espinoza	Civil engineer	1910	

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Source: Made by the author based on Gaytán Ortiz, Inés(2017), El mundodesdeunacalle..., op. cit., pp. 68-75, 377-379.

Let us talk about Carlos Suárez Fiallo, the designer of González Ortega Market<sup>16</sup>.Carlos was born in Veracruz, and he lived most of his life in San Luis Potosí. He was probably military engineer, although he showed in his work the influence of some architectural treatises and the domain of several construction styles. He knew well the use of industrial materials, this is why he decided to use cast iron for the structure of the building. He priced the material in the United States and Europe, where he finally bought it from none other than the French company Fives Lille, builder of the Eiffel Tower elevators.<sup>17</sup>The figures 1 and 2 show the original project of González Ortega Market.

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<sup>&</sup>lt;sup>13</sup> Archivo Histórico del Estado de Zacatecas (AHEZ), Hemeroteca, La Crónica de Zacatecas, Tomo XII, Núm. 25, June 19,1890, p. 1.

<sup>&</sup>lt;sup>14</sup> Archivo Histórico del Municipio de Zacatecas (AHMZ), Hemeroteca, Correo de Zacatecas, Tomo 3, Año VIII, Núm. 412, May 8,1910. p. 1. <sup>15</sup> AHEZ, Fondo: Jefatura Política, Serie: Correspondencia General, Subserie: Obras Públicas, Caja: 1, April 24, 1880.

<sup>&</sup>lt;sup>16</sup> Ramos Dávila, Roberto (1982) Mercado González Ortega, México: Ediciones del H. Ayuntamiento de Zacatecas, p. 6.

<sup>&</sup>lt;sup>17</sup> Reyes Rodríguez, Andrés (2013), Refugio Reyes, una vida, el aprendizaje, México: Municipio de Aguascalientes, CONACULTA, pp. 96,

<sup>97, 100.</sup> 



Figure 1: On the left, González Ortega Market, designed and built by the engineer Carlos Suárez Fiallo, 1890. Source: Colección Fotográfica Federico Sescosse Lejeune (CFFSL), p. 126.



Figure 2: Cast iron structure, interior of González Ortega Market, 1887. Source: CFFSL, p. 191

The figure 3, shows the González Ortega Market nowadays.



Figure 3: González Ortega Market nowadays. Photographer: Inés delRocíoGaytán Ortiz (IRGO), city of Zacatecas, January 7, 2024.

Then, there is no doubt that the first foreign influence present at the Historic Centre of Zacatecas along the Porfiriato was French, because all the cast iron structure and decoration of González Ortega Market was made by a French company in Paris.

It is necessary to highlight the fact that the cast iron required for the construction of González Ortega Market, was priced in the United States and Europe, and finally bought in France. Unfortunately in those days, it didn't exist Mexican industries or factories that could provide the amount and quality of cast iron that the designer was looking for. However, cast iron was a material well known and widely used for construction purposes in other countries like United Kingdom, even during the 18<sup>th</sup> century:

Prior to 1750 cast iron had been used very little in engineering and building, and was employed chiefly for tools, utensils, firebacks and andirons, grave slabs, and particularly, cannon and implements of wars. For other uses it was a new material and regarded with the same cautious expectation that until recently was aroused by reinforced concrete, and is now aroused by such substances as plastics. But the seventy-year period from 1750 to 1820 is crowded with the names of adventurous, innovating, mechanical engineers, civil engineers and architects who appreciated the possibilities of the new material. Men like the Darbys, John Wilkinson and his brother, William Wilkinson, John Smeaton, [...] Tom Paine[...] John Nash [...]. These men used cast iron for engineering, for building and for decoration. Apart from the purely engineering uses in machine and engine construction, the material was employed for the first time for bridges, canal banks, locks and lock gates, aqueducts, stanchions, beams, lintels, sills, windows, tram and railway lines, columns, and often took beautiful and highly decorative forms as railings. English and Scottish iron founders were progressive and energetic men, with profound faith in the attributes and future of the material they had mastered. The great growth of the foundry at this time is indicated by examining the work of famous ironmasters, civil engineers and architects of the period.<sup>18</sup>

The truth is that in the city of Zacatecas before 1886, the native builders weren't experts in the use of cast iron. It seems that at that decade of 1880, they started to be acquainted with this material and others that were the result of industrial processes, standardization and mass production such as precut lumber, bricks, roof crests and finials, tailor made house door handlers, and wall paper with beautiful designs. There is no doubt that this modernization process in the construction of the city of Zacatecas was promoted bythe establishment of the Ferrocarril Central Mexicano, American company that was in charge of laying the railway rails from El Paso, Texas, crossing the Great River towards the old town of Paso del Norte (place already known in those days like Ciudad Juárez), and that had as final destination México City. Along the journey from El Paso to México City, travelers had the opportunity to visit on the main road, the terminals of many Mexican cities like Chihuahua, Jiménez, Lerdo, Fresnillo, Calera, Zacatecas, Aguascalientes, Lagos, León, Silao, Irapuato, Salamanca, Celaya, Querétaro, Tula and San Juan del Río.<sup>19</sup>In fact, it was on March 9, 1884, when the first train coming from México City arrived for the first time to the city of Zacatecas.<sup>20</sup>

In the year of 1886, when the construction of González Ortega Market started, cast iron was used too for houses remodeling on Hidalgo Avenue. This is the case of the residence located at Number 5, De la Caja Street, that belonged since 1830 to Antonio García Salinas (see figures 4 and 5);the property was inherited by his sons Jesús, José María and Joaquín García. When Joaquín died in the city of Aguascalientes in 1879, the property remained in the hands of his brothers, as it was declared in 1882. Both of them were widowers and used to live in Trancoso state.<sup>21</sup>It is clear that the house was remodeled, and it was added one more floor to it in 1886. It is possible to know this because the date 1886 was carved at the main wooden door (figure 6). The structure and architecture of the third floor it's very different to the other two. At thethird level cast iron was used, although the material it isn't present on the under levels, where the construction was made mainly with wood and pink sand stone (figure 7).



Figure 4: García's house in 1892. The building was refurbished in 1886 using cast iron columns around the patio. Source: CFFSL, p. 247.

<sup>19</sup>Campbell, Reau (1899), *Campbell's, New revised Complete guide and descriptive book of Mexico,* Sonora News Company, United States of America: Press of Thos. Printing and Binding Co., Chicago, book found in the Nettie Lee Benson Latin American Collection, The University of Texas at Austin in 2015, pp. 16, 17, 272, 320-339.

<sup>20</sup>Oliva Collazo, Rigoberto (2001), *El tranvía y el ferrocarril en la ciudad de Zacatecas durante el porfiriato 1877-1910*, Tesis para optar por el grado de Licenciado en Historia, México: Universidad Autónoma de Zacatecas, pp. 40, 61, 62.
<sup>21</sup> Registro Público de la Propiedad del Estada de Construcción de Cacatecas durante el porfiriado del Estada de Construcción de Cacatecas, pp. 40, 61, 62.

Registro Público de la Propiedad del Estado de Zacatecas (RPPEZ), Vol. 6, F 21 V, Zacatecas, Zac., April 4, 1882.

<sup>&</sup>lt;sup>18</sup>Gloag, John, Bridgwater, Derek (1948), *A history of cast iron in architecture*, United Kingdom: London, W.S. Cowell LTD, London and Ipswich, George Allen and Unwind, LTD, book found at the Architecture and Planning Library, The University of Texas at Austin in 2015, pp. 53, 54.



Figure 5: Main entrance, García's house. Photographer: IRGO, city of Zacatecas, January 7, 2024.



Figure 6: Picture of the main wooden door with the date 1886, carved in it. Photographer: IRGO, city of Zacatecas, January 7, 2024.



Figure 7: Cast iron columns around the patio, at the upper level. Photographer: IRGO, city of Zacatecas, May 10, 2016

The same kind of columns still exists at the house of the old Trancoso state. On October 10, 1893, it was added to this property another residence located just at the corner between De Rosales Street and De la Caja Street, marked with the

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numbers 1 and 3. This property was divided into two houses, and belonged in 1893 to the brothers Jesús J., Genaro and Antonio G. García.<sup>22</sup>

The next public building to analyze is the New Hospital built during the years of 1890 to1901.José Noriega, its designer, was born in México City in 1826. He got his architecture degree at La Academia de San Carlos. Noriega designed and built four opera houses, an achievement that not many professional have reached in the world, and even less in México. These opera houses were: Manuel Doblado in León; Morelos, in Aguascalientes; La Paz in San Luis Potosí and Juárez, in Guanajuato. He finished the first three. The theater located in Guanajuato was left in the hands of Antonio Rivas Mercado, because the construction experienced many problems. Unfortunately there is not too much information about the architect, but at least few of his drawings have been preserved. It is known that he stayed three years in Europe, from 1876 to 1879, where he was studying the old Rome architecture and the contemporary Paris, where he also had the opportunity to visit the newly opened Opera building designed by Charles Garnier. The influence of his travel and this particular building would be enormous for Noriega.<sup>23</sup>The construction of the Morelos Opera House in Aguascalientes began in 1882 and it was opened on August 25, 1885.<sup>24</sup>

It was found a document that shows that José Noriega was living in 1884 in the city of Zacatecas, because he was part of the commission that inspected the vault of the old Fernando Calderón Theater. The document also explains that Noriega worked as the engineer of the municipality. In this visit to the old opera house, he was joined by the engineers Luis G. Córdova and José A. y Bonilla.<sup>25</sup>

The conclusion of this inspection was delivered on May 28, 1884. The document was written and signed by José Noriega who talked about himself as "the architect of the municipality" (see figures 8 and 9).

Comt Lacatores, I'll av informa berhad 1 d'arguitecto all yo 2.0 Mino a' asta de yo 2.0 Jatma to figmion

**Figure 8, 9:** Document written and signed by José Noriega as "the architect of the municipality". Source: AHEZ, Fondo: Jefatura Política, Serie: Correspondencia General, Subserie: Obras Públicas, Caja: 1,May 28, 1884, F 1 F.

Salvador Vidal explained that the designer of the new hospital (see figure 10) was the architect José Noriega<sup>26</sup>.



Figure 10: Photography of the new hospital, designed and built by the architect José Noriega, 1890. Source: CFFSL, p. 36

pp. 42, 43. <sup>24</sup>Martínez Delgado, Gerardo (2009), *Cambio y proyecto urbano, Aguascalientes, 1880-1914*, México: Universidad Autónoma de Aguascalientes, Presidencia Municipal de Aguascalientes, Editorial Pontificia Universidad Javeriana, Fomento Cultural Banamex, p. 277. <sup>25</sup>AHEZ, Fondo: Jefatura Política, Serie: Correspondencia General, Subserie: Obras Públicas, CAJA: 1, May 19, 1884, F 1 F.

<sup>26</sup> Vidal, Salvador, *Bosquejo Histórico de Zacatecas*, Tomo IV, Segunda Parte 1877-1910, pp. 191, 192.

<sup>&</sup>lt;sup>22</sup> RPPEZ, Vol. 17, F 96 – F 121, Zacatecas, Zac., October 10, 1893.

<sup>&</sup>lt;sup>23</sup> Del Cueto, Mariano (2010), "Teatros del bicentenario. José Noriega, 4 veces arquitecto de la ópera", in *Pro ópera*, available at https://proopera.org.mx/wp-content/uploads/2019/12/42-Teatros-ene2010-%E2%88%9A\_compressed.pdf, last review: January 4, 20224, pp. 42, 43.

The hospital was located at Lomas delCalvario. Its first stone was placed on January 1, 1890.<sup>27</sup> Unfortunately, the construction stopped in 1901, when the building was completely finished.<sup>28</sup> The hospital was never used for the purpose that it was designed and built, but the beautiful construction remains until nowadays in the city of Zacatecas (figure 11).



Figure 11: Main façade of the hospital designed by the architect José Noriega. Photographer: IRGO, city of Zacatecas, July 20, 2019.

It is obvious that this project has European influences, mainly from Italy and France, not only because José Noriega got his degree at La Academia de San Carlos, institution that followed the program formulated by the Italian Javier Cavallary as it has already been explained, but because the architect visited the old continent between the years of 1876 and 1879. He was very interested in the old Rome architecture and the huge changes that Napoleon III and Haussmann recently had made in Paris.

Finally, we will talk about some of the buildings that were designed by the remarkable architect George Edward King (figure 12), located at Historic Centre of Zacatecas.



Figure 12: Photography of the English/British architect George Edward King. Source: Jaime Medina, Centro INAH, Zacatecas. The picture was presented by Francisco Ochoa, professor at Universidad Autónoma de Ciudad Juárez and the historian R.B. Brown, Historical Museum of Ciudad Juárez.

Some documents explain that The Municipal Assembly of the city of Zacatecas decided, after the inspection of the old Fernando Calderón Theater's vault, that it was necessary to build a new building. This decision that was taken on October 13, 1890, required the approval of the Congress.<sup>29</sup> On October 22, 1890, the newspapers explained that Jesús Aréchiga, governor of the state of Zacatecas, had approved the construction of a new opera house, and Fernando M. de Prez would be the contractor.<sup>30</sup> The construction of the building began at the end of March, 1891. Fernando M. de Prez, from New York, had established a commitment to finish the theater on September 16, 1895, but he didn't fulfill it. When he arrived to the city of

 <sup>&</sup>lt;sup>27</sup> AHEZ, Hemeroteca ,*El Defensor de la Constitución, Periódico Oficial del Gobierno del Estado*, Tomo XIV, Núm. 2, January 4, pp. 2, 3.
 <sup>28</sup>Ramos Dávila, Roberto (1995), *Zacatecas: Síntesis Histórica*, México: Ed. Centro de Investigaciones Históricas, Estado de Zacatecas, 295.

<sup>&</sup>lt;sup>29</sup> AHEZ: Fondo: Ayuntamiento de Zacatecas, Serie: Actas de Cabildo, Monday, October 13, 1890, f. 42.

<sup>&</sup>lt;sup>30</sup> AHEZ, Hemeroteca, El Defensor de la Constitución, Periódico Oficial del Gobierno del Estado, Tomo XIV, Núm. 85, October 22, 1890,

p. 1.

Zacatecas, he was joined by the English architect George Edward King, designer of the project, who finally completed the construction and decoration of the new theater. He was helped in supervision by engineer Luis G. Córdova. The opera house was completed in June 1897 (see figure 13).<sup>31</sup>



Figure 13: Fernando Calderón Opera House, designed and built by the English architect George Edward King, between the years of 1891 to 1892. Photographer: IRGO, city of Zacatecas, January 7, 2024.

This building and other houses designed and built by King in the city of Zacatecas, have definitely influence from Great Britain and the United States of America, as it will be shown in the next paragraphs.

George was born in London, England, on November 15, 1852. He emigrated to the United States of America, country where he was already living in 1871. His older brother, John King, was a builder in England, specializing in assembling wooden structures such as stairs, door and window frames.<sup>32</sup>John King and James Martin (their sister's husband), used to visit to George in the United States frequently. The three men collaborated on several projects throughout the decades of 1870 and 1880. George was married with a woman named Harriet. "D. F. Gardner & Co., Leadville, Colorado" was the letterhead of a document written by John King in 1884. This means that the family was living in the United States of America when the eldest son of Harriet and George, George Edward King Jr., was born in 1875. George Jr., like his father, became an architect. He attended from 1894 to 1896, to the architectural college in Philadelphia.<sup>33</sup>

According to the Leadville, Colorado City Directory of 1879 (published once a year), George E. King had his architect's office at 29 Harrison Avenue, in the Dix Building, and he resided above the store. The 1880 directory shows that his office was located at 166 Harrison Avenue in the room above Haswell's Drug Store, and King's residence was in his new house designed and built in 1879, located at 212 West 9th Street. The 1881 document shows that his office moved to 502 Harrison Avenue, Apartment 20 of the Howell Building, under the business name of George E. King & Company. John King apparently joined his brother in business and resided with George in the house located at 212 West 9th Street. This business and living condition appear to be the same during 1885. Neither George King, John King nor the business appear in any directory after 1885.<sup>34</sup>King became a member of the Western Association of Architects (WAA) in 1885, according to the American Institute of Architects (AIA). In 1889, that association emerged as the American Institute of Architects, and its members were promoted to Associate status to equal WAA membership status. George E. King's residence according to the WAA membership list between 1885 and 1886 was still Leadville, Colorado.<sup>35</sup>The figures 14, 15, and 16 show some of the advertisements of George E. King architect's office in the Leadville, Colorado City Directory.

<sup>34</sup> Temple Israel: http://www.jewishleadville.org/architect.html, last reviewed August, 2015.

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<sup>&</sup>lt;sup>31</sup> Ramos Dávila, Roberto (1985), *Plazas, plazuelas y Jardines de Zacatecas*, México: Publicaciones del H. Ayuntamiento 1982-1985, Impresos Turísticos R., pp. 17, 18.

<sup>&</sup>lt;sup>32</sup>American Institute of Architects, Web site: http://public.aia.org/sites/hdoaa/wiki/Wiki%20Pages/ahd1023931.aspx, last review August 8, 2015.

<sup>&</sup>lt;sup>33</sup>The AIA Historical Directory of American Architects Home. A Resource Guide to finding information about past architects, Web site: https://aiahistoricaldirectory.atlassian.net/wiki/spaces/AHDAA/pages/36891721/ahd1023931, last reviewed December 28, 2023.

<sup>&</sup>lt;sup>35</sup>American Institute of Architects, Op. Cit.



Figure 14, 15, 16: Records of George E. King's office in the Leadville, Colorado City Directory, years of 1879, 1882 and 1884. Source:

http://www.historycolorado.org/sites/default/files/files/OAHP/Guides/Architects\_Colorado\_Database.pdf, last review August, 2015.

The question about what happened to George E. King, the years that followed; it is answered by the AIA Historical Directory of American Architects:

In the 1890s, George E. King, Sr., had offices in El Paso, Texas, and in Mexico City, with these letterheads: "Office of Geo. E King/Architect and Superintendent/Wells Fargo Bank Block/El Paso, Texas 5" and "Office of Geo. E King/Apartado 537/Mexico City. Mexico 4". According to his letters back to England, he built an opera house in Zacatecan and projects in other cities throughout Mexico including two government contracts in Guadalajara.<sup>36</sup>

That George had offices at El Paso, Texas, can be proved by the advertisements that appeared at El Paso City Directory (see figure 17).



Figure 17: Advertisement of the architect George E. King, at El Paso City Directory. Source: Jaime Medina... Op. Cit.

This information is provided to demonstrate that the architect George Edward King had acquired his maturity as a builder in the United States of America, although he had close ties with the construction carried out in England, not only because he was born and raised in London, but because his brother John, he had specialized in the assembly of wooden structures, and they worked together on several projects. This means that when the construction of the new opera house began in the city of Zacatecas, George had both influences: English and North American. This became evident when I developed an analysis of the architectural details, characteristic and materials used at the construction of new theater and the residences that King designed and built between 1891 and 1897 in the city of Zacatecas.

The wooden structure of the roofs, made by lumber pieces that were industrially precut, is one of the features that is common between some of the residences and the under level of the Fernando Calderón Theater, as well as the bay and bow windows that George used at least in four houses located at the Historic Centre of Zacatecas. The figure 18 shows the main façade of the house designed by the architect King for the Petit Escobedo family, located at the ending of the De Rosales alley.

<sup>&</sup>lt;sup>36</sup>The AIA Historical Directory of American Architects Home, *Op. Cit.* 



Figure 18: Main façade of the Petit Escobedo's house, built by the architect George Edward King and located at the ending of the De Rosales alley. Photographer: IRGO, city of Zacatecas, January 7, 2024.

The figures 19, 20 and 21show some of the architectural and structural features of the house like the roofs and bay windows. The residence's project was accepted and signed by the owner Juan A. Petit, by F. M. de Prez, as the contractor, and George E. King as the architect and designer on April 27, 1892.<sup>37</sup>



Figure 19: Interior view of the wooden roofs structure, Petit Escobedo's house. Photographer: IRGO, city of Zacatecas, October 21, 2021.

Figure 20, 21: Interior and exterior views of the bay windows of the Petit Escobedo's house, built by the architect George Edward King. Photographer: IRGO, city of Zacatecas, October 21, 2021.

There is another bow window at the residence that belonged during the period to the wealthy business man Benjamín Gómez Gordoa, located then at the corner between Plaza Principal and De la Reforma Streets, number 71<sup>38</sup> (see figures 22 and 23).

<sup>&</sup>lt;sup>37</sup>Gaytán Ortiz, Inés (2018), El mundo desde una calle... Op. Cit., p. 354.

<sup>&</sup>lt;sup>38</sup>RPPEZ, Vol. 19, F 233-237, Zacatecas, Zac., November 2, 1895; AHEZ, Fondo: Jefatura Política de Zacatecas, Serie: Notarios, Luis D. Hernández, F. 29 V.



Figure 22, 23: Exterior views of the bay window that George E. King placed at Benjamín Gómez Gordoa's House, when George E. King remodeled the dwelling, along the Porfiriato. Photographer: IRGO, city of Zacatecas, January 7, 2024.

It was found a picture of a bay window that is extremely similar to the ones that the architect George Edward King placed in these houses in the book *A history of cast iron in architecture*, published in United Kingdom (figure 24).



Figure 24: Picture of a bay window located at Brunswick Place, Southampton, England, that is very similar to the ones placed in some houses of the city of Zacatecas by the English architect George Edward King. Source: Gloag ,John, Bridgwater, Derek (1948), *A history of cast iron in architecture, Op. Cit.* p. 133.

It might be said as well, that these kind of windows were used in the past in North America, in cities like Victoria, British Columbia, Canada (figures 25 to 27).



Figure 25, 26, 27: Exterior views of a bay window located at downtown, Victoria, British Columbia, Canada. Photographer: IRGO, Victoria, British Columbia, Canada, January 12, 2019.

The same happens in London, city where these windows have been extensively used for dwellings, and they can be seen frequently in their main façades (figures 28, 29).



Figure 28, 29: Street views of dwellings located at South West London, close to Egerton Gardens and Egerton Pl. As it may be seen, bay and bow windows are extensively used to decorate and illuminate most of the main façades of the houses. There is no doubt that they are traditional architectural elements used in Great Britain. Photographer: IRGO, South West London, August 6, 2021.

In the past, there used to be a myth about these kind of windows that had never been used in the architecture of the city of Zacatecas before the Porfiriato. Some Zacatecan historians used to call them "French windows",<sup>39</sup> when the truth is that their names are *bay* and *bow window* according with the place of the façade where they are located (middle or corner). These architectural elements have been extensively used over time in many cities of the United Kingdom, United States of America and Canada. This means that it is necessary to clarify and recognize the influence that the construction of these countries actually has in the Historic Centre of Zacatecas' architecture. There is no doubt that George Edward King brought this influence with him to the city of Zacatecas. He was born and raised in London, where it is frequent to see these types of windows (see figures 28, 29). George continued to be involved with the use of these architectural elements throughout all the years that he lived and worked in the United States.

<sup>39</sup> Medina Lozano, Lidia(2012), *El tránsito urbano hacia la modernidad, Op. Cit.*, p. 89.

About the wooden roof structure used by him at the under level of the Fernando Calderon's opera house and several residences, there is no doubt that is related with balloon framing, "an example of early industrialized construction, relying on mass-produced machine-made products of a uniform dimension produced in large volumes. Carpenters and builders could replace custom components with interchangeable parts, shifting construction from a skilled specialized craft to repetitive, semi-skilled labor".<sup>40</sup>

Another interesting invention that George E. King brought to the city of Zacatecas, was the elevator, something that it wasn't even seen here before. George placed one at the opera house and another one at Benjamín Gómez Gordoa's house (figures 30 to 32).



**Figure 30, 31, 32:** Elevator placed at Benjamín Gómez Gordoa house. This house was evidently remodeled by George E. King, because an elevator like this, with the same mechanism to make it work, was found at Fernando Calderon's opera house. The information about the elevator was given by Carlos Sánchez Pesquera, Benjamín Gómez Gordoa's great-grandson, who used to visit his relatives living at this residence located in the city of Zacatecas. Photographer:IRGO, city of Zacatecas, July 30, 2019.

The house that belonged to the American-Italian doctor Luis M. de Jesi along the Porfiriato,<sup>41</sup> also shares these architectural and structural features. There is no doubt that this residence was designed and built by George E. King. The dwelling was originally located on the north corner between Tres Cruces Street and Jardín Hidalgo Street (figures 33 to 35).



Figure 33: Exterior view of Luis M. de Jesi's house. A bow window was placed just at the corner. Photographer: IRGO, city of Zacatecas, 2015.

<sup>&</sup>lt;sup>40</sup>Balloon framing is a well-known house construction design that was popular in the US and Canada between the 1880s and the 1950. Source: House Grail, "What is balloon framing? Advantages, disadvantage, types & FAQ", shttps://housegrail.com/what-is-balloon-framing/, last review January 4, 2024.

<sup>&</sup>lt;sup>41</sup> Gaytán Ortiz, Inés (2018), *El mundo desde una calle... Op. Cit.*, pp. 500, 501.



Figure 34 and 35: Exterior and interior views of the bow window that George E. King placed just at the corner, on the second floor. Photographer: IRGO, city of Zacatecas, 2015.

The figures 36 and 37, show that this dwelling also has the same wooden roof structure.



Figure 36 and 37: Interior view of the wooden roof structure at the second floor of Luis M. de Jesi's house. Photographer: IRGO, city of Zacatecas, 2015.

Finally, there is another bow window at the house located beside the south side of Fernando Calderón Theater (see figures 38 and 39). For sure Feliciano Gómez González, his owner along these years, hired George E. King to design it and build it.<sup>42</sup>



**Figure 38:** Image of the bow window placed at the corner of Feliciano Gómez González' house, on a post card dated on February 11, 1900. The second floor of the dwelling was remodeled along the Porfiriato. Source: CFFSL, p. 279.

<sup>42</sup>*Ibidem*, pp. 415, 483, 484.



Figure 39: Exterior picture of the bow window of the house that belonged along the Porfiriato to Feliciano Gómez González. Photographer: IRGO, city of Zacatecas, January 7, 2024.

There is more proof that shows that these kind of architectural and structural elements weren't frequently used by the native builders working in the city of Zacatecas along the Porfiriato: the letter that George E. King Jr. sent to his relatives in England. The letter was sent when the construction of the Fernando Calderón Opera House was about to finish. This was the letterhead: "Office of Geo E. King Architect & Superintendet. Apartado 537. Mexico City, Mexico. 4, 2nd 1897". Here he wrote:

Dear Cousin George:

Just a few lines to let you know that I am still alive but I am almost ashamed to write to you after waiting such a long time but you will please excuse this long delay in answering your most welcome letter but I must state truthfully that I can offer no other excuse only that I was very careless and did neglect to answer same. But would like very much for you to see more of the Great United States. Of course you are acquainted with New York and Philadelphia but these are only 2 of the many large cities that we have.

At present I am, you can see, out of the United States and in the land of the Aztecs and Montezuma and I must say that I like the country very much but not the people, they are just about 100 years behind the people of the U.S [...] Mexicans, being naturally averse to all businesses enterprise or energetic action, have for years past left the development of their country to the strangers within their gates. Unless he is a man of wealth, the Mexican usually has one ambition, and that is to become a government employee. With this satisfied, he cares little about banking, trading or mining.

But it is mighty hard to get them to change their way of thinking, the same as in Father's business they will not build their buildings same as we do in the U.S. It takes them 5 years to construct a building we can construct in 12 months.

But then Father and I are doing well. Father has done building nearly all through the Republic. We have two large Government contracts as present in the city of Guadalajara where father is at present. He left here nearly 2 weeks ago and I will soon go there and relieve him when he is at home and I am taking care of the work so you see this is very nice as we both do not have to be away at the same time from home which makes it much pleasanter for Mother and Sisters and Brothers. I tell you this life of being away from home is not very pleasant, this you will know from experience. There is no place like home. But we must go where business calls us.

But we cannot tell when we must leave this earth, when He calls us we must respond. When your letter came same was sent to me from Mexico City to Zacatecas. But we have finished the Opera House with the exception of putting in the chairs which we will put in next month. The Opera House is to be inaugurated by the President on 5th May - a great holiday which they call Cinco de Mayo.

Dear Cousin must now close with love and best wishes from us all to yourself and all my cousins hoping that I may hear from you frequently and I will answer promptly. Hoping that some way we will meet one another. I remain. Your loving cousin. Geo. E. King Jnr. Love to all my Aunts, Uncles, Cousins and etc.?<sup>43</sup>

The remarks that George's Jr. made about the construction in Zacatecas, as well as other Mexican cities where he and his father were in fact living and working like Chihuahua, Guadalajara, Aguascalientes and Durango<sup>44</sup>, allow us to understand that the native builders of these places weren't familiarized with standardized construction like balloon framing, or some materials produced by industrial processes and mass production such as cast iron, precut lumber, bricks or roof crests and finials. George E. King and George Jr. were well acquainted with these kind of construction systems and materials. This is why the traditional way to

<sup>&</sup>lt;sup>43</sup>Source: Geraldine King, great granddaughter of John King, George Edward King's brother. The letter was obtained by personal communication with the film producer Julián Hugo Guajardo.

<sup>&</sup>lt;sup>44</sup> Gaytán Ortiz, Inés (2018), *El mundo desde una calle... Op. Cit.*, pp. 405, 410, 418.

build a building in Zacatecas would make the process slower and it would take five years to finish it instead of one. This letter also help us to realize that George Jr. was helping to his father to finish the Fernando Calderón Opera House.

Although there were two Mexican builders that had used throughout the decades of 1880 and 1890 new construction materials like iron cast in the design and construction of public buildings like González Ortega Market and the new Hospital, a more extensive use of them was possible until the arrival to the city of Zacatecas in 1891, of an English architect that had matured as a builder at the United States of America.

### Conclusion

Along the research carried out with the purpose of finding what foreign influences the architecture of the Historic Centre of Zacatecas had between the years of 1877 and 1911, period known in México as Porfiriato, it was possibly to find some answers.

Even though it has been generally said that the French influence was the only one that characterized the Mexican architecture built during the years that Porfirio Díaz ruled in México, as the researcher Carlos Lira Vázquez affirmed, this is perhaps true for some buildings located in México City, however, it is not what happened in other cities of the country, especially of the central and northern states. Lira Vázquez found that the people living in Jerez, Zacatecas are proud of their Hinojosa Theater because they affirm that it's a copy of Washington's Ford Theater, place where Abraham Lincoln was murdered in 1865. Lira Vázquez highlights the fact that the people living in Jerez along the Porfiriato didn't have their minds put in the architecture from France, but on the one from the United States of América.<sup>45</sup>Antonio Bonet explained that in order to comprehend how complex the architecture built during this period was, it must be understood that one thing is what happened in México City, and what happened in the capitals of other states is quite another. For the evolution of the architectural styles, the railway played a very important role, because it meant the interchange of ideas and constructive technology. Because most of the Mexican architects lived and worked in México City, in the capitals of the Mexican states, those who carried out most of the construction work were the engineers and the empirical workers known as *alarifes.*<sup>46</sup>

As it has been already explained, certainly the influences that first arrived to the city of Zacatecas between the years of 1877 to 1911 were French and Italian, because of the public buildings designed and built for the engineer Carlos Suárez Fiallo and the architect José Noriega. However, it is the time to recognize that the influence from Great Britain and the United States of America, was either printed at Zacatecan architecture by George Edward King. The influence of these countries still remains in beautiful buildings that King designed and built, located in the city of Zacatecas: Fernando Calderón Theater and the houses that belonged along the Porfiriato to wealthy people like Juan A. Petit and his wife Ana María Escobedo, the Italian-American doctor Luis M. de Jesi, Benjamín Gómez Gordoa and his uncle Feliciano Gómez González.

Carlos Suárez Fiallo, José Noriega and George Edward King are the names of the engineer and architects that along the Porfiriato brought to the architecture of the Historic Centre of Zacatecas, the Italian, French, English and North American influences.

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