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**A HISTORY OF  
MEXICAN ART**

**SET 9**

**MODERN ARCHITECTURE:  
UNIVERSITY CITY**

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## INTRODUCTION

The National University of Mexico, the oldest on the continent, was founded in 1551; however, its new buildings, located on the outskirts of Mexico City, present a striking panorama of modern Mexican architecture.

Plans for the new university complex were initiated by ex-President Miguel Alemán, an alumnus, in 1950. At that time the university buildings, many of them old and crumbling, were scattered throughout Mexico City, with a radius of over four miles from the central administration offices. To remedy this situation, Alemán acquired 1730 acres in the Pedregal, an ancient lava field on the southern edge of the city.

The lava bed of the Pedregal is about two and one-half miles wide and six miles long, varying in depth between twenty to fifty feet. The lava originated from the now extinct volcano Ajusco. The date of the volcanic overflow is a matter of debate, estimates ranging from 2,000 to 10,000 years ago. Beneath the lava pottery and human bones of an unknown people have been discovered, probably pre-Aztec. The Pedregal, now becoming a fashionable residential area, was barren for centuries; only recently have foliage and grass begun to cover it.

Carlos Lazos, a prominent young architect and Minister of Public Works, was commissioned to carry out the general project, and under his direction the vast enterprise was completed in three years by a team of 150 architects, engineers, painters, and sculptors, and approximately 6,000 workmen.

The complex, which cost over \$50 million, includes a 15-story science building, an Olympic Stadium seating 102,000, a cosmic ray laboratory, a liberal arts building nearly a quarter of a mile in length, and a 12-story library with space for over a million volumes. The buildings are impressively modern in design. No elaborate Baroque façades are seen here, with carved columns and pilasters, pro-

jecting cornices and receding niches. The emphasis has shifted from perspective to the plane surface, varied by the use of many different materials: glass, concrete, onyx, glazed tile, granite and lava. Windows are cleanly cut in the surface, unadorned with frames, garlands, or pilasters, and the rectangular lines characterizing most of these buildings are allowed to dominate, no longer disguised, as in colonial edifices, by towers and curved espadañas. The Baroque custom of elaborating one side of a building as the chief façade and leaving the side walls severely bare has been abandoned. The university buildings are made to be viewed from all sides, and the visitor cannot gain complete knowledge of a building without walking all around it.

With its wide sweeps of lawn and abundant trees, the university complex is set off from the eerie landscape of the surrounding Pedregal, having something of the air of a jealously tended oasis. Walking through the campus, one is constantly impressed by the harmony and variety of the buildings, many linked by graceful covered walks, and all arranged to provide an inspiring series of vistas as one progresses.

A distinctively Mexican feature of the university buildings is the use of colorful mosaics to decorate portions of the exterior. Designed by leading Mexican artists, the mosaics illustrate allegories and historical eras. Although many of these have a modern flavor, the technique is based on an ancient tradition, for pre-Conquest temple platforms and palaces were frequently ornamented with murals, mosaics, and painted reliefs.

✓ 1. Main Library. Architects: Juan O'Gorman, Gustavo Saavedra, and Juan Martínez de Velasco. Murals by O'Gorman.

From northwest.

The most striking building on campus is the library, a square building with a 10-story tower, covered with colored mosaics. The tower, which contains two million volumes, periodicals, microfilms, etc., was designed without windows, in the interest of temperature control. The mosaics by Juan O'Gorman illustrate the cultural history of Mexico, from prehistoric times to the present.

Each wall represents a different epoch. The north wall, seen here on the left, depicts the pre-Conquest era. Above, in the central axis, is the sun, center of ancient Indian religion. Day and Night are symbolically represented below, along with the symbols of the Aztec astronomical system. Above, on the left, are the two terrible Aztec deities, Tezcatlipoca and Chalchihuitlicue, while on the right are the beneficent Quetzalcoatl and Tlaloc.

The west wall depicts the blending of the Indian, Spanish, and modern elements.

2. Main Library. West Side.

On the west side ancient motifs such as the serpent (symbolizing fertility) blend with depictions of modern buildings, people in modern costumes, symbols of bull-fighting, and slogans indicating the modern quest for unity. On the lower left two Indians flanking a white-faced figure indicate racial diversity; on the lower right, a football player represents the modern enthusiasm for sports.

The mosaics consist of an estimated seven and a half million stones, gathered from all regions of Mexico. The clarity and lustre of the colors seem to increase with the years.

3. Main Library. North Side, Lower Portion.

The main floor of the base of the building contains a lending library and a reading room accommodating 350 people. This portion is airy and naturally lit, in contrast to the upper stories. The walls are decorated with panels of mosaic designs.

4. Main Library. Fountain Sculpture on North Side.

A fountain on the north side springs from a relief in the lava wall. Portraying a face and hands, the relief is Aztec in spirit.

5. Main Library. From southeast.

The south side, seen on the left, portrays the colonial period, depicting conquistadores, priests, and the building of churches. The Spanish heritage is shown as well, with representations of Spanish contributions in the fields of science and architecture.

The east side, like the west, represents a blend of the cultures and traditions that have combined to form Mexico's present.

6. Main Library. Detail of East Side.

Aztec motifs figure in the upper portion of the east side. Here in the upper middle is a depiction of Quetzalcoatl, the Plumed Serpent and Sun God, his feathered wings spreading to form a disc. His legs are extended below, and his arms can be distinguished above. To the left and right of his feet are grinning skulls, representing the Aztec custom of human sacrifice to the sun. A snake, symbolizing fertility, springs from the skull on the left, representing the cycle of growth and decay. Signs of the zodiac abound, indicating the ancient Indian preoccupation with astronomy.

On the lower right is an Indian temple with a thatched roof, but on the left more modern motifs are creeping in: a colonial church and industrial chimneys.

7. Main Library. Southeast Corner. Relief on Wall Surrounding Garden Courtyard.

The wall surrounding the garden courtyard on the southeast is built of lava and decorated with mosaic reliefs by O'Gorman. Aztec motifs were chosen: flaming suns and fanged serpents with undulating bodies, and the sculptures are characterized by an Aztec vitality. The face has the angular frontality of much Aztec sculpture. The fluid lines of the flaming suns have a modern flavor, however. Ancient Indians rarely used the circle as a decorative motif - perhaps it was considered sacred - and they would have preferred the

sternly ordered lines of geometric patterns to the undisciplined ripples of these tongues of flame.

8. Central Administration Building.

Architects: Mario Pani, Enrique del Moral, and Salvador Ortega Flores. East Side.

The Central Administration Building stands at the highest point of the campus, near the main road leading to the city. It consists of a rectangular three-storied building, containing offices for student affairs, and a 12-storied tower, where the administrative offices are located. In the tower strips of windows alternate with solid horizontal bands. The window strips, meeting at the corners with no solid vertical support, impart an effect of floating delicacy, which is enhanced by the slender pillars supporting the two sections of the tower.

9. Central Administration Building.

East Side. Detail.

A great variety of materials was used in the façades: glass bricks, concrete, vari-colored glazed tiles, carrara glass, onyx, and plastics. A colorful panel with a geometric pattern decorates the east side of the building, suggesting a winged creature, possibly a butterfly or grasshopper, both of which were worshipped in pre-Conquest days.

10. Central Administration Building.

From southwest.

In the ground floor, extensive use has been made of onyx slabs, cut so thin that they give the effect of stained glass windows with their translucence.

11. Central Administration Building.

North Side. Sculptured Panel.

The north side of the building is ornamented with a sculptured panel of two hands, with significant dates of Mexican history noted on the left, marking the arrival of the Spaniards (1519-20), Mexico's Revolution and Declaration of Independence of Spain in 1810, and the Social Revolution of 1910.

✓ 12. Central Administration Building.  
South Side.

Mural by David Alfaro Siqueiros.

The plastic mural by Siqueiros represents Mexican students returning to the nation the fruits of their studies; the artist entitled it, *The People Go to the University, the University Goes to the People*. Embodying Siqueiros' conception of a mural for the modern age, the mural has a bold simplicity and clarity that allow motorists passing at 60 miles an hour on the highway to appreciate it. The brightly colored figures protrude from the background, adding depth and vitality to the mural. This combination of color and sculpture dates back to pre-Conquest tradition, when important buildings were decorated with painted reliefs.

✓ 13. Olympic Stadium.

Architects: Augusto Pérez Palacios, Raúl Salinas, and Jorge Bravo. Exterior from east, showing Polychrome Stone Relief by Diego Rivera.

The Olympic Stadium, one of the most notable structures in University City, is situated in the western half of the site, connected with the campus by a tunnel under the Avenida Insurgentes. The exterior is faced with lava and decorated with a plastic stone mosaic by Diego Rivera, depicting the story of sports in Mexico from the days of the ancient Indian empires down to the present.

14. Olympic Stadium. Interior.

One of the five largest stadia in the world, the stadium seats 80,000 and including standing room accommodates up to 110,000. The stadium can be emptied in 20 minutes by means of 48 sloping tunnels.

As the design was based upon the principle of soil compensation, reinforced concrete was used only for the press gallery, the tunnels, and bleachers extending out 30 feet. The construction was carried out by the methods used in building ancient pyramids, thousands of workers moving the earth excavated from the center and piling it up around the circumference to build the ramp and slopes. The walls rise upward on the long sides, where the best seats are located, and slope down-

ward at the two goal-post ends of the football field. The construction resembles an artificial crater, its double curves providing views outward into the volcanic landscape of the Pedregal.

15. School of Architecture and Art Museum.

Architects: José Villagran García, Alfonso Liceaga, and Xavier García Losurain. Main Entrance (North Side) seen from northwest through Gallery.

The main building of the School of Architecture contains a number of rooms grouped around a vestibule: lecture halls, a library, a theater seating 400, an examination room, and an art museum. Here the main entrance is seen from the northwest. The projecting portico, which continues westward, links up with the post and telegraph offices, shops, and the bank. The building has a severe dignity, produced by the restrained use of color, the plainness of the walls, and the bold divisions of the window area.

16. School of Architecture and Art Museum.

Interior Court from southeast.

The building has a charming inner court; through the glass walls one views the sunlit garden from the comfortable coolness of the interior. The theater, museum, library, and exhibition room open off the gallery surrounding the court.

The interior court has a long tradition in Spanish and Mexican architecture, but it is a new idea to enclose it with glass walls so that the court seems to become part of the interior of the building itself.

17. School of Architecture and Art Museum.

Passage from South Entrance to the Vestibule, seen from the Vestibule.

Another pleasant contrast between sun and shade is seen in this passage leading from the south entrance to the vestibule. The floor of the passage is paved with large blocks of irregular size and shape, reminiscent of ancient Aztec flooring. The sides are planted with shrubs, and a statue decorates the entranceway. Although inside, one has the feeling of being outside as well. This interpenetration of interior and exterior space is typical of modern architecture.

18. School of Architecture and Art Museum.  
Sculpture on South Side.

The paving outside of the south entrance is adorned with an expressive sculptural group in lava, a man and a woman embracing. The sculptor shaped the figures with a generalizing treatment of detail, focusing attention on the rough, vibrant grain and surface of the stone. The modern sculptor takes great interest in the texture and natural features of his medium.

19. Humanities Building. Tower of the Humanities Institutes. Architects: Team including Enrique de la Mora, Manuel de la Mora, Manuel de la Colina, Enrique Landa, etc. From west.

The Humanities Building, situated on the north side of the campus, is a large complex housing the Department of Philosophy and the Schools of Law and Economics. All the lecture rooms are contained in a 3-story building over 330 yards in length. To the west of this rises the 9-storied tower of the Humanities Institutes, with its gleaming curtain walled façade.

Seen in the foreground is a colonnaded covered walk providing protection from sun and rain.

20. Humanities Building. From southwest.  
Architects: Vladimir Kaspé and José Han-  
hausen (School of Economics), Alonso  
Mariscal and Ernesto Gómez Gallardo  
(School of Law), and Enrique de la Mora,  
Manuel de la Colina, and Enrique Landa  
(Department of Philosophy).

Here the 330 yards of the lecture room building stretch into the distance, the western, nearest portion housing the Department of Philosophy, the mid-section the School of Law, and the far end the School of Economics. The ground floor is colonnaded, giving access to all the units and annexes and providing a passage from the service road to the campus. The upper stories contain glass-walled lecture rooms. Between this building and the Tower of the Humanities Institutes to the west is a patio, flanked by the faculty library, a theater, and the administration building.

21. Humanities Building.  
Gallery from east.

The gallery on the ground floor has a pebbly flooring. The irregular stonework of the walls contrasts with the plainness of the large, rounded columns. Here the modern interest in a variety of surfaces and textures is seen.

22. Department of Natural Sciences.  
Architects: Raul Cacho, Eugenio  
Peschard and Félix Sanchez. Auditorium  
from north. Mural by José Morado.

The buildings housing the Department of Natural Sciences were the earliest group to be constructed. The buildings consist of a tower containing research institutes, an auditorium, a library, administrative offices, and laboratories. The auditorium, shown here, has a seating capacity of 500 and is topped by a thin-shell concrete roof. The curved façade is decorated with a vivid mural by José Chavez Morado, representing the god and sources of science.

23. Department of Natural Sciences.  
Auditorium. Detail of Mural.

Done in a flickering, intense style, the mural shows a turbulent scene of threatening flames, a leaping beast of prey, and a group of men apparently in the act of lighting torches from the fire, perhaps symbolizing the spread of knowledge.

24. Department of Natural Sciences.  
Lecture Halls Adjoining Auditorium.

Adjoining the auditorium on the south is a two-story building containing 26 lecture halls. The plain west wall of the auditorium is seen on the left; beyond is the lecture hall building, with a colonnaded ground floor and an intriguingly articulated upper portion. The rippling contour is due to the fact that each classroom has a sloping floor.

25. Department of Natural Sciences.  
Tower of Natural Sciences from west.

The 14-storied tower houses research institutes for chemistry, physics, astronomy, mathematics, geography, and geophysics. Both east and west sides are unshaded glass walls which, although beautiful, make working conditions difficult in the afternoon.

The auditorium façade is seen on the right.

26. Department of Natural Sciences.  
Tower of Natural Sciences and  
Administrative Offices.

The group of buildings stands on a large paved terrace. Here the tower is seen on the right, with its ground floor colonnade. On the right is the low building containing administrative offices.

27. View from Department of Natural Sciences  
through to the School of Medicine.

The buildings of the university are laid out so as to provide striking vistas from almost any point. The School of Medicine, to the northeast of the Department of Natural Sciences complex, is located in a sort of separate campus, along with the School of Veterinary Medicine, the School of Dentistry, and the Department of Biology. Here the façade of the laboratory wing of the School of Medicine is seen from the terrace of the Department of Natural Sciences. Separate though the two complexes are, they are skilfully linked visually.

28. School of Medicine (and Pavilion for Cosmic Ray Research). Architects: Roberto Alvarez Espinosa, Pedro Ramírez Vázquez, and Ramón Torres. Glass Mosaic on Façade of Laboratory Wing by Eppens.

The laboratory wing is seen again here on the left, its façade decorated with a glass mosaic by the painter Francisco Eppens Helguera. To the right is the west side of the School of Medicine Building, with vertical louvres in front of the corridors. In the right foreground is the quaintly shaped Pavilion for Cosmic Ray Research.

The mosaic shows a mask with three faces, with the Spanish father facing right, the native mother facing left, and the Mexican mestizo facing forward. The theme is the struggle between Life, represented by Aztec and Mayan symbols for fire, rain, and procreation, and Death, symbolized by red circles. Prominent in the design are the fanged serpent, worshipped by the ancient Indian as a fertility symbol, and an ear of maize, mainstay of the Mexican diet for thousands of years.

29. School of Medicine.  
Laboratory Façade. Mosaic Detail.

Here the fanged serpent is seen in detail, in the act of swallowing another creature. This subject was frequently depicted in ancient Indian art to represent fertility and the cycle of birth, death, and decay.

30. School of Medicine.  
Main Auditorium from north.

The fan-shaped building on the left contains lecture halls, research laboratories, and dissection rooms in the lower stories and an auditorium seating 1050 in the windowless top story. To the right is the west façade of the main building, connected with the lower building by a two-story bridge.

31. Pavilion for Cosmic Ray Research.  
Architect: Jorge González Reyna. Technical Collaborator: Félix Candela.

The pavilion was built on the spot where the famous Mexican physicist Professor Sandoval Vallarta first investigated cosmic rays. The structure contains two laboratories for the measurement of cosmic rays and investigation of the phenomena of nuclear disintegration. In accordance with Vallarta's specifications, the structure is built with the thinnest concrete shells ever cast, only five-eighths of an inch at the ridge of the roof. The hyperbolic paraboloids used by Félix Candela for the first time in this building have since become a familiar feature in the panorama of modern Mexican architecture, occurring in market halls, warehouses, churches, and pavilions.

32. Pavilion for Cosmic Ray Research.  
View of Under Portion and Neighboring  
School of Dentistry Building.

Between the curved, tapering concrete legs supporting the pavilion, one sees a covered walk and a mural on the Dentistry Building. Another work by Eppens, the mural is a stylized version of the Mexican shield with eagle and serpent.

### 33. Covered Walk.

The many covered walks on campus were designed to protect students both from drenching downpours and from the fierce rays of the tropical sun. This particular walk was damaged in the earthquake of 1957; since that time the original 5-inch pillars have been replaced by 8-inch versions, and the sagging slab on top reinforced.

### 34. Main Restaurant. Exterior on North Side. Architects: Jorge Rubio, Eugenio Uguiza, and Carlos Zetina.

Many of the departments and institutes are provided with restaurants and refreshment rooms, but the university has a central restaurant as well on the south side of the campus, where students and professors can meet informally, away from the atmosphere of lecture halls and laboratories. The building contains a self-service cafeteria accommodating 300, a number of small dining rooms, and a soda fountain on the upper floor. Here the airy colonnade of the ground floor is seen. Like many of the university buildings, the restaurant seems to hover near the ground rather than rest heavily upon it.

### 35. Geological Institute, from northwest. Architects: Juan Sordo Madaleno, José Luis Certucha, and Luis Martínez Negrete.

The Geological Institute consists of two buildings, joined to form a T by a two-story bridge. The higher structure, shown here, accommodates the administration, technical offices, library, and collections, while the lower building (not visible here) contains laboratories. Parapets of asbestos cement reduce the glass areas of the façades, preventing the glare complained of in some of the earlier university buildings, and the structure has an air of crisp elegance.

### 36. Pathway for Pedestrians Under the Road, Looking Toward Main Library.

The university buildings are grouped in four main sectors: the campus, with its buildings for lectures and research; a recreation and sports area adjoining the south side of the campus; the Olympic stadium west of the campus, and a residential area to the southwest. The groups are encircled and linked by an excellent system of bypass roads. An underpass for pedestrians is seen here.

### 37. Athletic Facilities. Architect: Alberto T. Arai. Pool and Diving Tower.

The sports area contains a number of playing fields, tennis courts, and an Olympic-sized swimming pool. Here the pool, one of the world's largest, is seen with the ponderous diving tower in the foreground. The platforms of the tower are respectively 10, 16, 26, and 33 feet above the level of the water.

Underground rooms with plate glass windows are provided for the purpose of underwater photography.

### 38. Athletic Facilities. Exterior of Seating for Pool.

At one side of the pool is a large stadium to seat spectators of swimming meets. Seen here from the exterior, the stadium is a massive construction with sloping walls.

### 39. Athletic Facilities. Frontón Tennis Courts. General view.

The frontón tennis courts, with their thick lava walls, are one of the most striking architectural features of the university. Built in the form of truncated pyramids, they bear an uncanny resemblance to many Indian ruins, the Ciudadela at San Juan Teotihuacán in particular.

Frontón, a combination of tennis and handball, is extremely popular in Mexico. The game, which had pre-Conquest forerunners, is played variously with bare hands, a bat, a catcher's basket, or a tennis racket. In every case the ball is hit against the high, smooth walls enclosing the court on three sides.

### 40. Athletic Facilities. Frontón Courts. Exterior of One Court.

The size of the courts varies depending upon whether the game is to be played bare-handed or with additional equipment.

The sloping lava walls backing the perpendicular concrete walls of the courts provide space for showers and dressing rooms.

THE END