

中國優秀工程設計

Excellent Project Designs of China



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EXCELLENT PROJECT DESIGNS OF CHINA

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蘇丹友誼廳工程設計

佔地 6.29 公頃、由國際會議廳、宴會廳、展覽廳、影劇院和中小會議室等組成，總建築面積 24700 平方米。建築位于青白尼羅河交會處的濱江大道上，總體設計的軸綫佈局與自由佈局相結合，組成一個不對稱的平面，整個建築物沿濱江大道展開，形成視野開闊，氣勢雄偉的建築效果。立面採用大面積遮陽板，漏空花格以及折綫形拱，造型簡潔，具有阿拉伯民族熱帶建築的特色。工程竣工後，受到蘇丹政府和人民的贊揚。經聯合國國際會議有關組織鑒定，基本符合國際會堂標準，是聯合國認定的國際會議場所之一。

該工程由上海市民用建築設計院設

Taking up a site area of 6.29 hectare, the Friendship Hall consists of an international assembly hall, a banquet hall, an exhibition hall, a theatre and medium and small meeting rooms. The building of which its total building area is 24700m², is located at the boulevard along the intercourse of River Nil el Abyad and River Nil el A'zraq. According to the general layout, the axial distribution organically combines with the natural distribution thus creating a general plan which is not very symmetrical. The whole building extends itself

along the riverside boulevard and maintains a vision-wide and magnificent architectural result. Featured as Arabian tropical building, its elevation employs a large amount of use of abatjourns, hollowed-out flowery grids and acute arches while at the sametime, its entire appearance being quite simple.

After completion, it is highly praised by the Sudan government and people and after being appraised by relevant organizations of UN it is regarded as reaching the standard of international conference hall and appointed by UN as one of the assembly places of international conferences.

Designed by Shanghai
Civilian Architecture Design



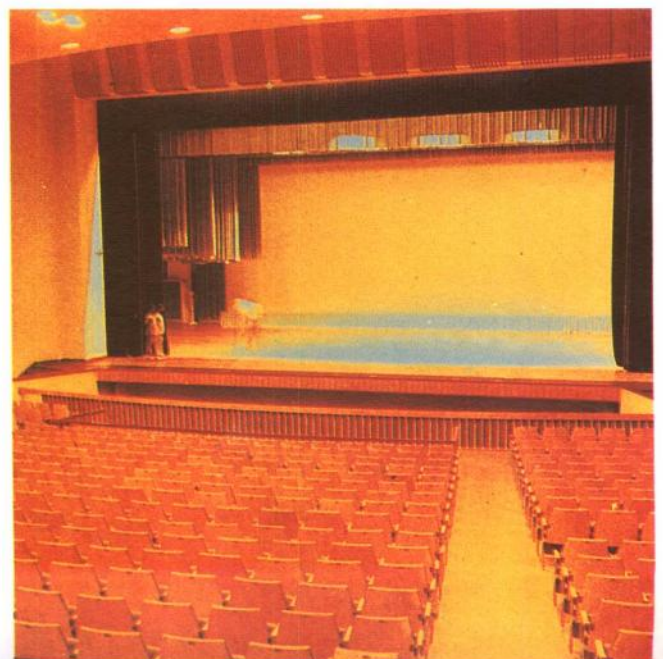
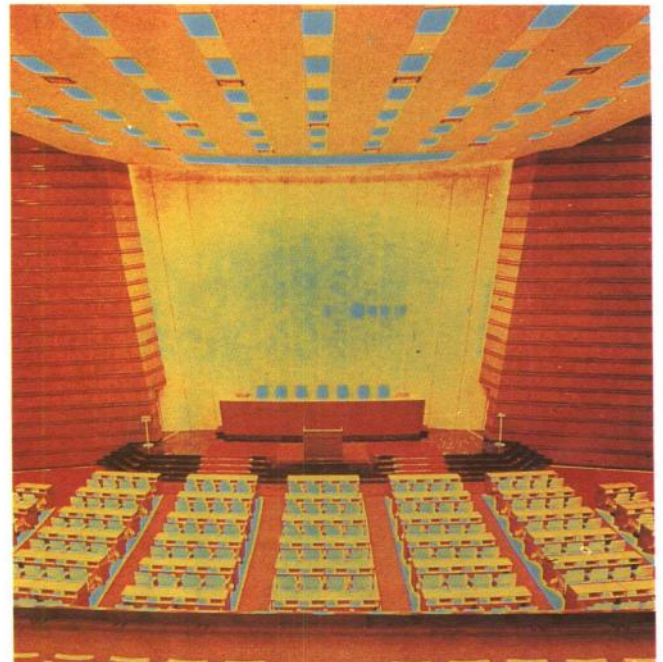
▽ 蘇丹民主共和國友誼廳外景
Exterior of Friendship Hall of Sudan Democratic Republic

◁ 蘇丹友誼廳工區大廳內景
Interior of Working Area Hall of Sudan Friendship Hall

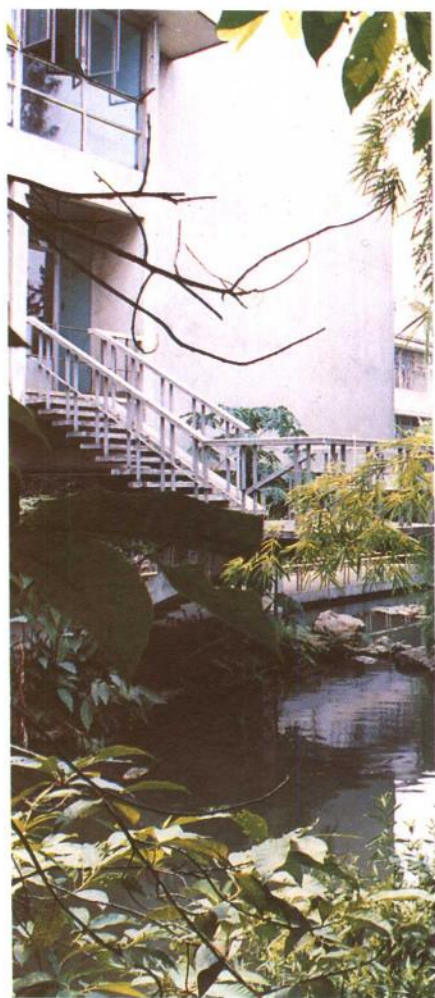
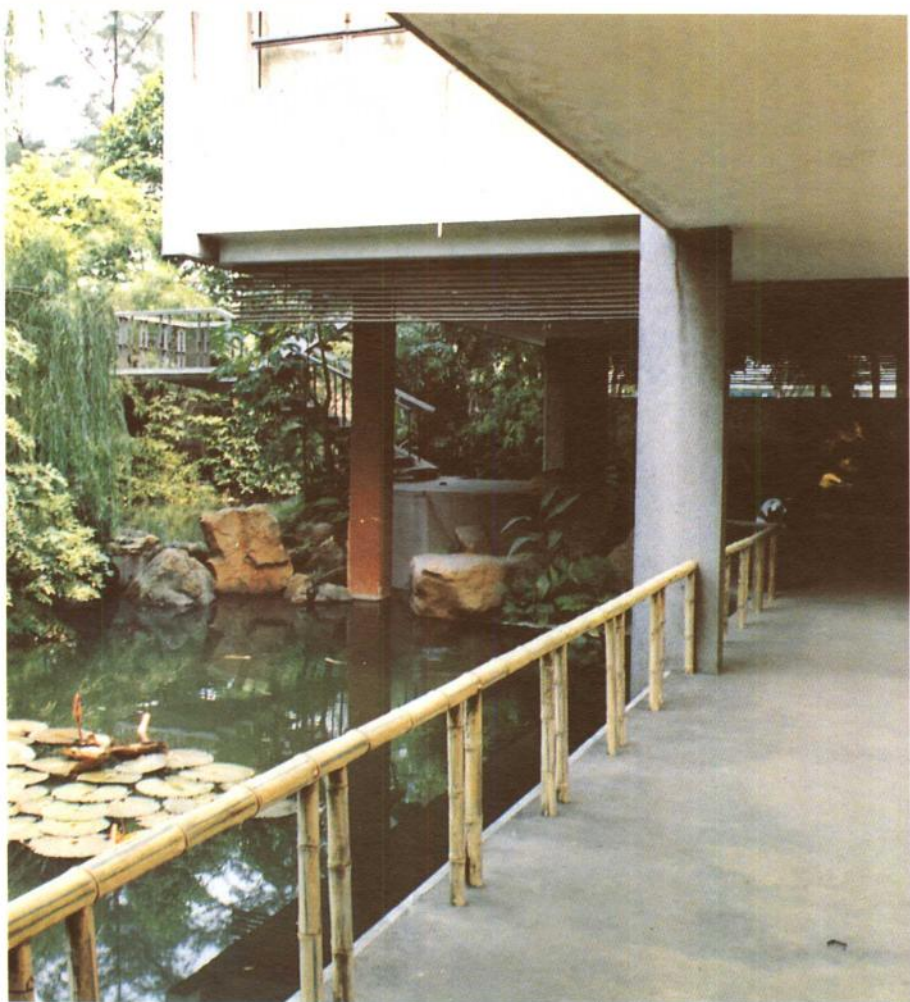
▽ 蘇丹友誼廳國際會議廳
Sudan Friendship Hall International Meeting Hall

▷ 蘇丹友誼廳全景
A full view of Sudan Friendship Hall

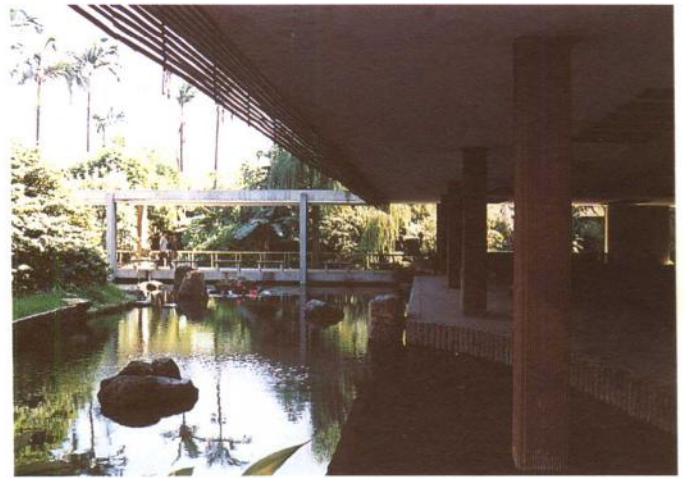
SUDAN FRIENDSHIP HALL PROJECT



廣州礦泉別墅



MINERAL WATER VILLA, GUANGZHOU



南京五台山體育館設計



NANJING MT. WUTAI GYM

南京五台山體育館，1972年9月籌建、同年10月至73年6月設計、73年5月開工，75年5月開始使用。

五台山體育館位於南京市中心地區五臺山體育中心，周圍丘陵起伏，環境優美，綠樹成蔭，並有廣州路、上海路等干道通過，交通方便，觀眾可以多路集散而不干擾市區交通。主館採用長八角形平面，南北長88.6m，東西寬76.8m，改善了大型體育館的視覺條件，觀眾席10000座分上下二層，樓座懸挑式看臺，既縮短了視距，減少了屋蓋覆蓋面積，又為下部空間利用創造了條件。人流組織簡捷、合理，觀眾、運動員、工作人員及貴賓等各股人流互不干擾。各部分空間組織緊湊，建築造型完整統一，淡雅素裝，樸實無華，別具風格。室內裝修尺度嚴謹，虛實對比。將建築藝術與建築結構、聲學、空調照明等融為一體，音質設計對體育表

該項目由江蘇省建築設計院設計。

演、集會和文娛演出等都獲得了良好的效果。投入使用以後，引起了廣大體育和建築設計界的關注，評該館為70年代的一個成熟的精心設計的代表作，並獲得了國家優秀設計獎和國家優質工程銀質獎。

Wutaishan in Nanjing was designed from Oct. 1972 to Jun. 1973, and put into use in May. 1975.

The Gymnasium located near the center of Nanjing City and stands in picturesque surroundings, where there is a chain of undulating hills and greenwoods. Main lines of communication pass through nearby, so that spectators can be gathered and evacuated conveniently without obstructing the traffic.

The plan of the Gym is octagon in shape, 88.6M long, 76.8 wide having perfect visual sense.

The two story stands supported on the cantilevers have 10,000 seats,

therefore we can get good vision, and to lay good foundation for making use of the lower space and reduce the roof area as well.

Entrances for different kind of people, spectator, athlete, staff and distinguished guest, are clearly separated without interfering.

The dominant aim behind the architectural design of this Gym is to create a modern building, simple but tasteful, elegant and plain, as well as the rigorous interior decoration with skills of art.

During the design the architecture, structure, acoustics, air condition, as well as the lighting are comprehensively and thoroughly considered, arranged and perfect for performance and meeting.

The project of the Gymnasium presented after coming into appears to be well representative of the advancement of architecture in its design aspects, and won the Award of national meritorious design, Silver Medal Award of national high quality project.

Designed by Jiangsu Architecture Design Institute



▽ 體育館外景
External view of the Gym.

◁ 比賽大廳
Field for Games

▷ 體育館門廳
Lobby of the Gym.

杭州機場候機樓設計

候機樓呈一字形，長 84 米，寬 28 米，採用 4 米統一柱網，爲了滿足不同功能使用要求，大樓分爲三個部分：中間爲候機大廳，南翼爲貴賓接待，北翼爲機組人員和過境旅客臨時住宿部分。爲適應各種類型接待任務，貴賓候機休息室有大、中、小三種，以便靈活使用。中部候機大廳佈置在二層，大廳長 36 米，寬 28 米，高 8.5 米，大廳西面採用錯層處理，上部佈置餐廳等。問訊，銀行，郵政，電訊等設在錯層的夾層或挑臺下。整個大廳光綫充足，色採淡雅，爲旅客提供舒暢，明朗，整潔的環境。西門廳兩側佈置檢查和行李房。東面臨站坪，設有 3 米寬統長挑臺，便於人們室外迎送。

立面造型樸素大方，大挑檐下，四周白色列柱，間襯大面積玻璃窗，取得暢快，開朗的面貌。

候機樓內設有冷暖氣設備，空氣新鮮，溫度宜人，並鋪設國際通訊電纜，可辦理電訊業務。

結構採用鋼筋混凝土現澆片筏基礎和鋼筋混凝土框架結構，樓面採用預制小梁空心板，部分採用磚牆承重的混合結構。屋頂採用 28 米跨鋼屋架，白鐵皮屋面。

The terminal consists of a plain long rectangular building with the dimensions' of 84m by 28m in plan, where unified Column spacings of 4m are applied to. By placing the main waiting room in the middle, the reception room for high class guests



to the south wing and lodgings for crewmen and transit passengers to the north, the building is divided into three zones to meet various functional requirements. In order to gain convertibility, different arrangements in size and interior of the guests lounges are on hand. The central waiting room is located on the first floor, measuring 36m in length and 28m in breadth, and having a height of 8.5. The restaurant is found on the mezzanine to the west of the big hall, whereas inquiry, bank, postal and telegraphic services etc. Take place beneath the intermediate floor and balcony. Effected by the brightness and modest colours of the interior, passengers using the big hall enjoy the pleasure of a clean, pleasant and delightful environment. Inspection and luggage rooms are placed to the sides of the west entrance-hall. Near the passenger concourse at the east front, a 3 m broad balcony in full length provides convenience for outdoor activities.

As to the exterior treatment were made to secure an unpretentious facade of simplicity. The arrangement of large windows mounted in full between surrounding white columns under the broad overhanging eave creates the appearance of light and openness.

The terminal building is furnished with air conditioning system to ensure good air circulation and comfortable room-temperature. cables for international telecommunication have as well been layed out contruction outline:

Foundation, Reinforced concrete raft foundation.

Structure, Reinforced concrete frame with partially brick bearing walls.

Floor Construction: Precast reinforced concrete slabs and beams.

Roof: Steel truss 28m span. Galvanized sheet iron covering.

HANGZHOU AIRPORT LOUNGE



由浙江省建築設計院設計
Designed by Zhejiang Arch-
itecture Design Institute



北京325米氣候觀測塔設計

北京氣象觀測塔高 325 米，是目前亞洲最高的氣象專用塔，於 1979 年建成交付使用。十幾年來為我國氣象觀測部門開展大氣污染規律和大氣物理科學研究工作，提供了重要而有效的監測手段，從而取得了大量的觀測數據和豐碩的科研成果。在國家經濟建設、國防建設以及氣象科技國際合作交流等方面起到了重要作用。該工程的特點：(1) 總體方案為拉綫式桅桿結構，具有最佳氣象觀測功能和技術經濟指標；(2) 塔架為三角形格構式鋼管結構具有剛度好、用料省、風載小等優點；(3) 材料選用適宜，强度高、性能好，比國外同類結構設計省料 15~30%；(4) 構造設計合理，施工方便，速度快、質量好，費用省；(5) 研制應用橡膠減振裝置，在國內首次解決了高聳結構風激振動問題。

該項目由中國建築科學研究院標準設計所設計。

Beijing meteorological observation tower, 325m high, is a highest one of such purposes in Asia built and put into service in 1979. As an important and effective means for meteorological observation, it has contributed a lot for meteorological department in fulfilling program on regularity of atmospheric pollution and in the field of meteorological physics, having accumulated a great deal of data and acquired a plenty of

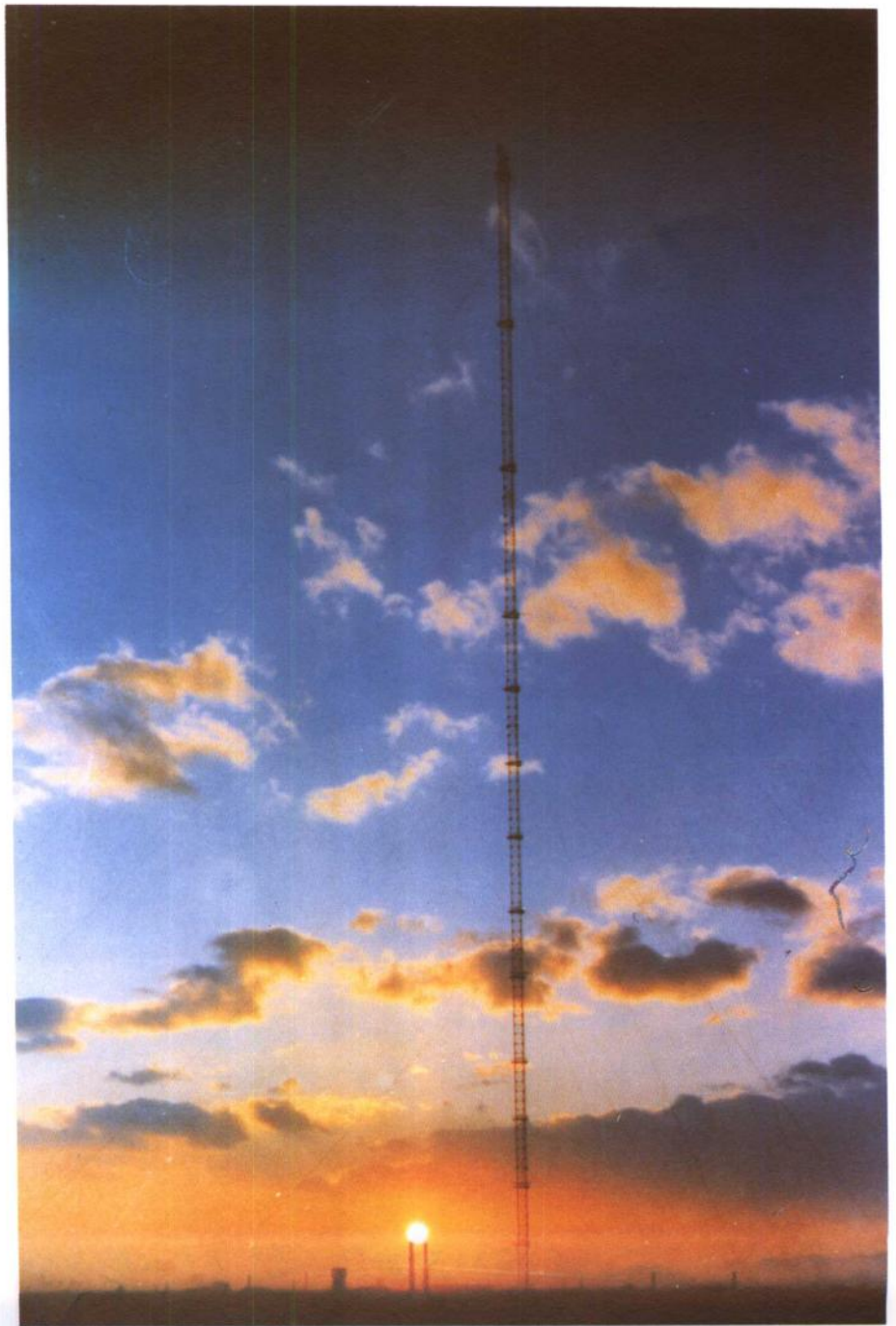


achievements. It thus played an important part in economical construction and construction of national defence as well as in international science and technology exchange of meteorology. This project is characterized by following features: (1) it is a guyed mast structure capable to meet functional requirements for meteorological observation in a best way with optimum technical and economical target; (2) the mast body is a triangular space truss comprised of pipes with high rigidity, less weight and less wind resistance; (3) high strength steel with favorite properties has been used giving an economy of steel by 15-30% in comparison with similar structure abroad; (4) rational design of structure which ensured an easy, quick and quality construction with low cost; (5) a kind of rubber damper has been developed and used for this project for the first time in domestic construction to eliminate excited vibration of high structures.

The project was designed by Standard Designing Institute under Chinese Architecture Science Research Institute

- ▽ 儀器伸臂構造
A structure of Apparatus Arm
- ▷ 塔架鋼錐形基座
Steel Awl-shaped Base of Tower Shelf
- ◁ 塔架總體
Major Body of Tower Shelf
- ▷ 325 m氣象觀測塔
325m Weather Survey Tower

DESIGN OF 325M METEOROLOGICAL OBSERVATION TOWER IN BEIJING



成都城北體育館設計

該項目系在原露天燈光球場上改建為多功能使用的中型體育館，造型新穎美觀，投資省，建造快，技術先進合理，綜合經濟效益好。容納觀眾 6000 座，建築面積 7428m²。

設計中首先充分利用原有建築材料，結合使用空間，因地制宜，考慮地區氣候因素，採用開敞式設計佈局，既改善了環境空間和建築的自然通風，又節約面積使建築佈局合理。外形和室內設計，重點突出大跨度空間和結構特征，表現剛勁挺拔、樸素大方和通透明朗的特點，具有鮮明的建築個性和地區特色。

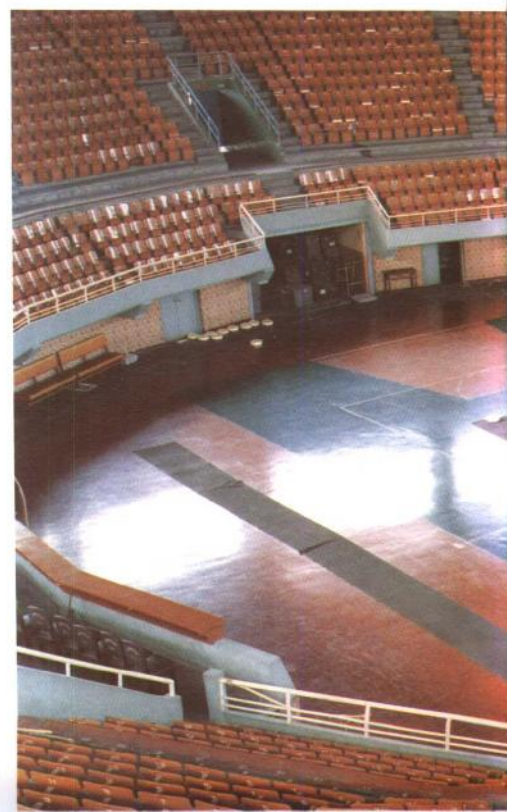
主體空間採用國內首創的 61 米直徑圓形無拉環雙層懸索屋蓋，自重輕、施工簡便，節省三材、經濟合理，可廣泛適用於圓形大跨度空間建築中，館內設計了較先進的集成電路式等離子計時記分自控裝置。操作靈活，壽命長，省電，室內燈光音響效果優良，滿足了功能使用要求。為適應國情，多快好省建設中小館提供了榜樣。

該項目由建工總局西南建築設計院設計。

**Project General Administration
Designed by Southwest**

**rchitecture Design Institute of
Construction**

This building is a medium-size multi-functional gymnasium reconstructed from an open lighting court. Being novel and artistic in shape, the project was constructed with advanced



CHENGBEI GYMNASIUM PROJECT IN CHENGDU



and rational technique, less investment, high speed and good comprehensive economical results. It has 6,000 spectator seats with a building area of 7428 M.

The designers made a full use of original building materials based on the former structure and usable space, and according to the local climate and other conditions, adopted opening arrangement in design which not only ameliorates the space environment and natural ventilation of the building, but also saves area and makes the architectural layout more rational. The appearance and internal design of this building gives prominence to the structural features of long span space, showing vivid architectural characteristics of "forceful and straight", "plain and tasteful" and "well-illuminated and ventilated", and a distinctive local style.

The main building took on the 61 M diameter, circular non-ring and double-deck steel strand roof which was first adopted in China. With superiorities of light dead weight, easy construction, material saving and rational design, such roof can be widely used for circular buildings with long span space. An advanced automatic integrated circuit time and scoreboard with advantages of convenient operation, long service life and less power consumption was designed for the gymnasium. The lighting and sound effects inside can meet all kinds of demands. This project has set an example for building medium and small-size gymnasium with greater, foster, better and more economical results under current condition of our country.

北京動物園爬行館設計

該館 1975 年設計，1979 年 8 月建成開館，日接待觀眾在萬人以上，總建築面積 4432m²。館內包括七個部分：蟒蛇廳、鱷魚廳、蜥蜴廳、飼養管理用房、休息廳、水榭、公廁。館內氣候條件可滿足來自世界各地兩栖和爬行動物自然習性的要求。

建築佈局採取自由式，造型活

The Reptile Hall was designed in 1975 and completed and opened in Aug. 1979. It can receive more than ten thousand visitors each day with total floor area 4432m² including halls for boa and snakes, crocodile, lizard and rooms for management and rest, pavilions and toilets. Artificial climatic conditions can meet requirements for natural behaviours of amphibious and reptile animals from all over the world.

Free type floor layout, live shape and variations of interiors give com-

fortable and spacious atmosphere. Landscaping, indoor plants, decoration in show windows and architectural finishes integrate with each other and are beneficial to each other. Simulated natural environment and lighting conditions are suitable for visitors and for animals' keeping as well. Good appraisalment has been made by the public.

該工程設計於 1980 年榮獲國家 70 年代優秀設計獎。

The design won the prize of the country's excellent designs in seventies in 1980.

由北京市建築設計院設計。
Designed by Beijing Mi Municipal
Architecture Design Institute