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RIYADH, SAUDI ARABIA

The city of Riyadh (plural of *rawdhab*, oasis) was founded on the ruins of several communities around 1740. Although it was chosen as the capital of the second Saudi state in 1824, it came to prominence only after its independent governor, Abdulaziz Al-Saud, began a campaign to consolidate modern Saudi Arabia in 1902. The speed and scale of Riyadh's transformation since, particularly during the 1970s, has had few parallels. From a walled city of less than 1 square kilometer in 1920, it has grown into a sprawling modern capital of 1,500 square kilometers. Its population has increased from an estimated 14,000 in 1902, to 666,480 in 1974, to more than 2.8 million in 1992, to an estimated 3.5 million by 1998.

The physical transformation of Riyadh began in the mid-1930s with King Abdulaziz's decision to build a large palace and administrative complex two kilometers north of the existing city. Known as al-Murabba', it covered an area of 16 hectares and was linked to the town by a paved stone road. The complex was complemented in the late 1940s by a new residential quarter, al-Futah, to the west of the road, where palatial mansions were built for the king's younger sons. Abdulaziz's building program had several lasting impacts on the form of the city: it stretched its size, it set a northerly direction for its future growth, it showed that the old walls could no longer be considered a barrier to growth, and it introduced a new means of transportation—the private motor vehicle. Architecturally, the buildings of al-Murabba' relied on traditional processes, techniques, and materials adapted by local craftsmen to a new scale and new requirements. The result was a magnificent Najdi style.

Transformation of the city continued after World War II with construction of an airport and a railway. Railroad tracks were laid between Riyadh and the Persian Gulf city of Dammam, with a station built 4 kilometers east of the old city in 1951. In 1952, a terminal building and mosque were constructed 7 kilometers north of the city at a landing strip that had been in use since 1946. In 1951, Crown Prince Saud also built a palace at the garden plot of Nasiriyyah northwest of the city. These three projects necessitated the city's first major road-building program. Nasiriyyah was linked to Murabba' Palace and the town, with a branch leading to the railway station. Another road was built connecting the airport to the city center. The early 1950s also brought the end of the old city as an intact physical entity. Its walls were removed, the old governor's palace and main mosque were rebuilt, and streets were widened to provide access for motor vehicles.

After succeeding to the throne in 1953, King Saud made three decisions directly bearing on the future of Riyadh. He transferred all government agencies from Mecca and began a program of building new ministries to the west of the airport road; he ordered construction of al-Malaz, a new suburb 4 kilometers northeast of the city, to house transferred government

employees; and he expanded and rebuilt his palace at Nasiriyyah. By 1957, seven ministry buildings, designed by the Egyptian architect Sayid Krayim, were complete. Nasiriyyah had been expanded to cover 250 hectares, employing a grid pattern of boulevards, gardens, and modern structures, and al-Malaz was well on the way toward a goal of providing 750 villas, 180 apartment units, buildings for a new university, and support facilities. These projects brought new conceptions of space, street patterns, building types, and materials to the city, and together they came to be known as New Riyadh (although al-Malaz, in particular, acquired this name). Al-Malaz would have a particularly important impact because it introduced the grid as a street pattern and the villa as a house type, forms that would become pervasive in the future development not only of Riyadh but also of every city and town in Saudi Arabia.

As Riyadh continued growing through the 1950s and into the early 1960s, other neighborhoods were built, and apartment buildings appeared along al-Thumairi, al-Wazir, and al-Khazan Streets. Distinct among these were the Fahd bin Moh'd building (late 1950s), the Moh'd bin Saud building (1959), the al-Riyadh building (1960), and the Zahrat al-Riyadh building (1968). Two larger noteworthy projects were also initiated in the late 1960s. These were the Riyadh Intercontinental Hotel and Conference Center (1971) by Trevord Dannat, which avoided the faceless style typical of the time by adopting indigenous architectural elements, and the King Faisal Specialist Hospital (1974), designed by Hospital Design Partnership.

A new phase of Riyadh's urban growth arrived in the late 1960s, when the Saudi government contracted with Doxiadis Associates of Athens to prepare a master plan for the capital city. The plan, approved in 1973, called for a supergrid of boulevards 2 kilometers apart, a major commercial and civic spine extending north to south with an administrative area perpendicular to it, and residential districts extending on both sides of the spine. Among other important effects, the plan confirmed the role of the private automobile as the primary mode of transportation in the city. To implement the plan, the government created a technical committee chaired by the Riyadh governor that would later form the nucleus for the Arriyadh Development Authority (ADA). Since its inception in 1974, this government authority has guided Riyadh's development and carried out large-scale building and renovation projects in the city center, the al-Murabba' district, and elsewhere in the metropolitan area.

Great changes arrived in Riyadh following the oil boom of the early 1970s, leading some critics to describe the city as the biggest construction site in human history. In terms of design excellence, three major projects stand out from the late 1970s: the General Organization for Social Insurance (GOSI) Headquarters (1978), the Saudi Arabian Monetary Agency Towers (1978), and the Saudi Fund for Development (SFD) Headquarters (1980). The GOSI Headquarters, designed by Nabil Fanous and Basim Al-Shihabi, is a graceful modern composition of interlocking Cubistic volumes reminiscent of the Boston City Hall. Its 1987 extension, also by Al-Shihabi (Omrania: Architects, Planners and Engineers), today provides a stark contrast to the original design by using reflective glass on a six-story triangular block to mirror the older building. In his design for the Saudi Arabian Monetary Agency, Minoru Yamasaki employed two massive ten-story towers, identical in structure and facade. In the SFD Headquarters, Urban Coile International took a different



King Abdulaziz Historic Center (1998), Beeah Group Consultants and Rasem Badran
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approach, attempting to create a modern office building with local roots. Its use of old Diriyyah buildings as a point of reference for exterior expression and its interior arrangements around a covered courtyard have since been emulated by a number of other projects.

Distinctive projects in the 1980s included al-Khairia Center (1982) by Kenzo Tange, the Institute of Public Administration (1982) by The Architects Collaborative and M. al-Sabiq, and the King Khalid International Airport Terminal Complex (1983) by HOK. Today, the twin, triangular 14-story office towers of al-Khairia Center provide a landmark for the northern areas of the city. By choosing a cylindrical shape for the dome of the center's mosque and an elegant square column for its minaret, Tange also introduced new forms into mosque architecture. The structure of the King Khalid Terminal, located 35 kilometers north of the city, consists of four equilateral triangles arranged in a linear form, providing the shortest possible walking distance from curbside or parking to departure and arrival gates. The triangular forms also provide an ample area for security controls while allowing open space to penetrate through to the arrival floor.

Another important 1980s addition to Riyadh was King Saud University (1984), designed and engineered by HOK + 4 consortium. The master plan for this 20,000-student campus by

United Planner Schwanzer GMBH Vienna called for individual buildings to be compactly clustered and interconnected by a system of "spines" serving both as pedestrian "streets" on the main level and as service ways at ground level. Courtyards were used on the upper level for climate control, and windows and other openings were kept small to minimize the intrusion of harsh sunlight.

Since the mid-1980s, local architects have assumed an increasingly important role in the design of the city, and individual buildings have attempted to become more sensitive to local tradition. These trends are especially evident in the work of two local design teams: Basim Al-Shihabi of Omrania, whose most impressive projects have been Tuwaiq Palace (1985), the General Organization for Social Insurance (GOSI) Headquarters Building (1978, 1987), and the Gulf Cooperation Council Headquarters (1987); and Ali Shuaibi and Abdulrahman Al-Hussaini (of Beeah Group Consultants), particularly their designs for al-Kindi Plaza (1986). International architects have also become more responsive to local conditions. One excellent example is King Fahad International Stadium (1987) by Ain Friezer and Partners, a masterpiece of tent architecture. Another is Imam Moh'd Bin Saud Islamic University (1988). The master plan and design for this 15,000-student campus was produced by Techni Beria using a compact organic plan and a system of

courtyards repeated throughout the academic buildings to provide human scale and shorten walking distances.

Especially noteworthy designs in the 1990s have included the Ministry of Interior (1992) by Mousalli, Shaker, Mandily and Archi-System, whose inverted pyramid form produced an instant landmark; the Ministry of Municipal and Rural Affairs (1995) by Zuhair Fayez, which takes the form of an oasis in the middle of the city; the Al-Jazirah Newspaper Headquarters (1995) by Suter and Suter and al-Shathri; and the King Fahad Cultural Center (1991) by Widle Plan.

Since 1974, the ADA has also undertaken a number of large-scale building and renovation projects. One of the most important has been development of the Diplomatic Quarter (DQ). A 586-hectare site was allocated for this project 8 kilometers northwest of the city center after the Saudi government decided to transfer foreign diplomatic missions from Jeddah to Riyadh in 1975.

The master plan for the DQ was by Speerplan, Regional Und Stadtplaner GMBH; its central area urban design was by Beeah of Riyadh, and the layout of its residential districts was by Farahat Tashkandi. The DQ may one day hold as many as 120 embassies and 30,000 inhabitants. Today, more than 51 embassies and more than 40 other public or service-sector projects have been completed. Many of the embassies have been designed by well-known architects from their respective countries, including the Japanese Embassy (1985) by Kenzo Tange; the Canadian Embassy (1985) by Sanky Partnership; the Tunisian Embassy (1987) by Mimita, Bin Mahmoud and Faraj; and the French Embassy (1988) by Guy Naizot. Three other DQ projects have won international awards: Al-Kindi Plaza (1986) by Beeah; DQ Landscaping (1986) by Bödeker, Boyer, Wagenfeld and Partners; and Tuwaiq Palace (1985) by Atelie Otto, Büro Happold, and Omrania.

Four other ADA initiatives have been extremely important to the overall design of the city. One was the Ministry of Foreign Affairs (1984) by Henning Larsen and its attendant Staff Housing (1983) by Speerplan Regional Und Stadtplaner GMBH and CRS (with the involvement of Ali Shuaibi as ADA adviser). This successful housing project, employing dwelling clusters around cul-de-sacs with exterior access and an auto-free recreational spine, has now been emulated in the al-Hamra neighborhood (1994) of Riyadh, in Medina, and elsewhere in Saudi Arabia.

Also important has been ADA's rebuilding of Qasr al-Hukm, the Justice Palace District, including the entire old walled city and an additional area to its west. The first redevelopment plan here was by Franco Albini (1978); the second was by Beeah (1983), subsequently revised by ADA staff. Individual building projects have included the Governorate, Municipality, and Police Department buildings (1985) by Albini; the Great Mosque and Redevelopment of the Old City Center (1992) by Rasem Badran; the al-Migliyah Commercial Center (1992); the al-Ta'meer Center-1 (2000) by Dar Al-Mimar (Abdulhalim and Badran) with Arrow, Inc., and Site International; and the Riyadh Court Complex (2000) by M. Makkiyah and Saud Consult.

Finally, ADA has recently been involved in the redevelopment of al-Murabba', known as the King Abdulaziz Historic Center (1998). The urban design for this project was by Beeah and Rasem Badran, and it has subsequently involved the renovation or new construction of a series of buildings designed by several architects. This project represents a return to the city's

roots. Located on the old Murabba' site, its completion marks the centennial of the beginning of the process that led to Saudi Arabia's unification. Its high-quality urban spaces, magnificent architecture, and well-thought-out linkages of traditional and modern forms create a complementary focal point to Qasr Al-Hukm in the center of the city.

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See also Ministry of Foreign Affairs, Riyadh, Saudi Arabia; Mosque; Saudi Arabia

Further Reading

Of the following works cited, Facey provides a detailed history of Riyadh from its origins until the 1950s, including references to primary and secondary sources. Good overviews of the city's urban development are provided by al-Angari, al-Hathloul, and Daghistani. A record of the city's architecture since the late 1970s appears in the architecture magazine *Albanaa*. *Architecture for a Changing World* includes good coverage of several winning projects from Riyadh.

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ROADSIDE ARCHITECTURE

Roadside architecture, the bastard offspring of the automobile, had a pervasive effect on the American landscape during the 20th century. Often denounced for crassness and monotony yet irresistibly convenient to a population getting around on four wheels, roadside architecture was both the bane of the aesthetically sensitive and a boon to motorists looking for food, fuel, and lodging.

When the century opened, the automobile had been in existence just seven years, and only 8000 sputtering, self-propelled vehicles plied the streets and roads. The promise of freedom of movement proved so compelling, however, that the number of registered automobiles reached 458,000 by 1910, surpassed eight million by 1920, and exceeded 23 million by 1930. New