# The Gardens of the Alhambra and the Search for Spanish Modernism, 1953–75

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n October 1952, twenty-four Spanish architects spent three days at the famous palace complex of the Alhambra in Granada, begun by the fourteenth-century Nasrid rulers of Al-Andalus. Their purpose in gathering was to reflect on possible future paths for modern architecture in Spain, following a decade of architectural traditionalism imposed on the nation by General Francisco Franco's regime since the end of the Civil War (1936-39). The result of these architects' debates was the publication in January 1953 of the *Alhambra Manifesto*. Compiled by architect and academic Fernando Chueca Goitia and signed by all the other conference participants, the Manifesto emphasized the need for a modern Spanish architecture rooted in local traditions. If the academic architecture of Francoist Spain invoked the monumental classicism of the sixteenth-century royal complex of the Escorial, for these designers the palaces of the Alhambra offered a refreshing new paradigm that abandoned rigid classical hierarchies in favor of more informal asymmetrical layouts and fostered fluid relationships among buildings, patios, and gardens (Figures 1 and 2).

In fact, the *Manifesto* identified the interpenetration of house and garden as a key aspect of the Nasrid model, in which "the garden is embedded in the house, or the house sprawls into the garden." Moreover, it argued that outdoor space ought to follow the model of the Islamic garden, in the

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form of a living room "with the sky as the ceiling." Going forward, the work of this younger generation of architects often emphasized the asymmetrical interplay between house and garden, especially in their designs for single-family houses that became increasingly popular in the late 1950s and early 1960s.

In this article, we explore the influence of Hispano-Islamic architecture and gardens in the modernization of Spanish architecture. As revealed by the *Alhambra Manifesto*, this process began to accelerate about a decade after the end of the Spanish Civil War. To understand how this occurred, we will examine how buildings and gardens interacted in the designs for single-family homes built from the time of the publication of the *Manifesto* in 1953 until 1975, the year of Franco's death.

## The Albambra Manifesto

To understand the *Alhambra Manifesto* we must contextualize it in terms of the critical debates on modern architecture that arose in Europe in the early 1950s. It was during this period that the future Team 10 members began to convene and to question the Congrès Internationaux d'Architecture Moderne's doctrinaire approach to architecture and urbanism, and Ernesto Nathan Rogers pleaded for a modernism rooted in context in his editorials in *Casabella-continuità* (1953–65).<sup>3</sup> Because of its isolation after the Civil War, Spain found itself in a situation similar to that of Portugal; both nations were in a relatively marginal position with respect to the developing discourse on modern architecture. Texts such as "The Problem of the Portuguese House," published in 1945 by







**Figure 2** Alhambra, Granada, fourteenth century (authors' photo).

Fernando Távora, sought to uncover the essence of a modern Portuguese architecture without conforming to the universal canon of CIAM's modernism.<sup>4</sup>

In Spain, the need for renewal became evident in the late 1940s, when different professionals promoted discussion forums in Barcelona and Madrid. In 1952 in Barcelona, a group of eight Spanish architects—inspired by the 1949 lectures of Italian architects Gio Ponti, Bruno Zevi, and Alberto Sartoris—founded Grupo R (the R standing for renewal, regeneration, and revision), which proposed a version of modernism based on the study of the Mediterranean vernacular tradition.<sup>5</sup> Madrid, far from the coast and more strongly imprinted by the austerity of official policies, offered a slightly different situation. Nonetheless, the "Sessions on Architectural Criticism" organized by the Revista Nacional de Arquitectura, the journal of the Official College of Architects of Madrid, stimulated new discussion. Beginning in October 1950 with a lecture about the new United Nations Secretariat Building in New York, these sessions opened a window onto the international scene at a time when the Spanish architectural profession sought to dismantle a decade of isolation by turning to new models. Luis Gutiérrez Soto's emulation of the Escorial in his design for the headquarters of Spain's Ministry of Aviation (1942-54) epitomized the Franco regime's concept of a truly national architecture (Figure 3).6 Yet

by 1951, as revealed in a presentation on Gutiérrez Soto's building, the younger generation began to question these principles.<sup>7</sup>

The participants in the sessions held at the Alhambra in October 1952 thus aimed to articulate a new Spanish approach to modern architecture. The choice of venue underscored the paradigm shift: it turned away from the Escorial—the undisputed emblem of Spanish Renaissance architecture—to focus instead on the Alhambra, an Islamic palace that at the time did not enjoy the same critical acclaim. During the conference, the architects considered different aspects of the Alhambra complex in terms of contemporary design issues, moving away from the traditional romantic approach that privileged its picturesque qualities.<sup>8</sup>

The conference at the Alhambra was attended by prominent architects such as Secundino Zuazo (1887–71), Carlos de Miguel (1904–86), and Pedro Bidagor (1906–96), who had established practices before the war, as well as by younger figures such as Rafael Aburto (1913–2014), Francisco de Asís Cabrero (1912–2005), and Miguel Fisac (1913–2006). Also in attendance was Fernando Chueca Goitia (1911–2004), who would become the editor of the *Alhambra Manifesto*; following the revocation of his architectural license by Franco's regime, Chueca Goitia had devoted himself to the study of architectural history. The group divided into smaller subgroups to



**Figure 3** Luis Gutiérrez Soto, Ministry of Aviation, Madrid, 1943–58 (authors' photo).

study the Alhambra and to explore specific questions regarding its form, construction, decoration, and gardens. For these architects, the Alhambra offered a number of key lessons, including the privileging of the human module as the foundation for design; the emphasis on simple, cubic volumes; the honest use of materials; and the interweaving of building spaces with garden spaces. After conducting two further sessions in Madrid, the participants agreed on these principles as the foundation for the *Alhambra Manifesto*. <sup>10</sup>

As the editor of the *Manifesto*, Chueca Goitia played a key role in promoting the reassessment of the Alhambra. He was influenced by his mentor, Leopoldo Torres Balbás (1888–1960), who had been chief architect and conservator at the site from 1923 until 1936, when he was replaced by Prieto Moreno for political reasons. Torres Balbás, professor of the history of architecture and the fine arts at the Higher Technical School of Architecture of Madrid since 1930 and a prolific writer, brought new attention to the Andalusian monument through both his teaching and his books, which include *La Alhambra y el Generalife* and *En torno a la Alhambra*. Chueca Goitia served as Torres Balbás's assistant and later also received an appointment as a professor of architectural history at the Higher Technical School of Architecture of Madrid.

According to Chueca Goitia, Hispano-Islamic architecture displayed certain invariant characteristics, including the fragmentation of space, the clustering of rooms around patios, the interlocking of those patios at right angles, and the concealment of space by permeable architectural elements, such as screens, to interrupt continuous axial perspectives. <sup>13</sup>

### The New Relevance of the Garden

It is not surprising that the architects who gathered at Granada paid special attention to the Alhambra's gardens and outdoor spaces: during this time one of the few foreign trends to enter the Spanish architectural discourse was the organicism seen in the work of Frank Lloyd Wright. Prior to the Granada conference, Alejandro de la Sota (1913–96)—who graduated from Madrid's School of Architecture with Fisac, Cabrero, and Aburto—prepared a session titled "Architecture and Landscape," and Luis Ruidor Carol organized a session addressing the role of gardens in architecture. <sup>14</sup> As noted above, the integration of garden spaces was one of the four main themes discussed at the Alhambra conference, and the group responsible for this topic—Fisac, Chueca Goitia, Fernando Lacasa (d. 1963), and Francisco Prieto Moreno (1907–85)—concluded that the interweaving of buildings with gardens and landscapes was one of the Alhambra's main lessons for modern architecture.

Many early twentieth-century European architects admired Islamic gardens. Beyond the romantic re-creations such as that by Ferdinand Bac at Les Colombières on the French Riviera in the early twentieth century, landscape architect Jean-Claude Nicolas Forestier drew on the designs of Islamic gardens of Spain and Morocco in many of his projects, including not only the exhibition grounds he created in Barcelona (1929) and Seville (1929) but also many of the private commissions he realized all over Spain as early as 1911.<sup>15</sup> Forestier published an article on Andalusian gardens in 1922, and his pupil Nicolau Rubió i Tudurí, later appointed parks and gardens director of Barcelona, carried these ideas forward. 16 In his 1934 book El jardín meridional, Rubió i Tudurí surveyed prominent Islamic gardens in Spain-including those of the Generalife (the summer residence of the Islamic rulers of Granada) and the royal palace known as the Alcázar of Seville-in an effort to define the essential elements of the Mediterranean garden.<sup>17</sup> As he observed, these elements included axial clipped hedges to structure the garden; flowers, used sparingly and grouped by color; and potted plants, sited strategically for emphasis. Native, scented species mingled with exotic specimens, supplied with water by a gravitydriven irrigation system of pools and tanks.<sup>18</sup>

Rubió i Tudurí's contemporary Javier de Winthuysen, a painter and landscape designer from Seville, attempted a more comprehensive approach to Spanish gardens in his book Jardines clásicos de España. 19 Similar to publications of the time on Italian and French gardens, Winthuysen's contribution was conceived as an ambitious four-book series, with each book corresponding to one of Spain's four regions, with its particular climate, soil conditions, and cultural traditions. The plan was to dedicate one book each to northern Spain, the eastern coast, southern Andalusia, and central Castile, but only one book, on the last of these regions, was published in 1930. Although Winthuysen claimed that different regions demanded different garden types, in practice he often resorted to typical Hispano-Islamic elements, such as geometrical patterns, ceramic tiles, and fountain basins set at ground level, as in his designs for the marquis of La Romana's residence (1920) and the former School of Civil Engineering (1925), both in Madrid.<sup>20</sup> Even as he praised Forestier, he also found fault with the superficial imitations that Forestier's work had triggered, insisting that the Andalusian garden with its "embedded Moorish spirit"-represented a logical synthesis of nature and art, not merely the vain application of tiles that turned gardens into "ceramic showrooms."<sup>21</sup>

During his service as chief architect and conservator at the Alhambra, Torres Balbás introduced gardens that supported his own approach to heritage preservation. As an advocate of so-called scientific restoration practices, he argued that buildings should not be returned to their original form but instead should be preserved in their present state, as witnesses to complex historical change. While preservation efforts should prevent ruin, they should not add to or take away any of the existing remains.<sup>22</sup> To achieve these goals, Torres Balbás introduced plantings to define access routes through the excavation sites and to serve as a backdrop for the buildings; he also sought to give an idea of former spatial arrangements by installing green mock-up planted versions of lost archways and other missing elements.<sup>23</sup> In addition, he created new gardens: at the Partal Palace, between the excavated palace of Yusuf III and the Torre de las Damas, he planted a terraced garden that incorporated the existing albercas, or pools, into his new design.

After the Civil War, Hispano-Islamic gardens became even more popular, promoted as genuine expressions of Spanish character that could in turn support the nationalistic ideals of the Franco regime.<sup>24</sup> In September 1950, the International Federation of Landscape Architects (IFLA) held its second international conference in Madrid, hosting 172 delegates from twenty-two countries; following the conference, the Franco government—recognizing an opportunity to show its best side to the world after a decade of political isolation—offered the participants a one-week organized tour of gardens in Seville, Granada, and Cordoba. In this

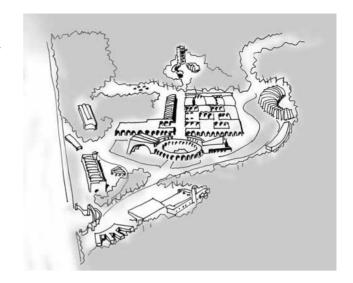
"green diplomacy," which included receptions at the royal palaces around Madrid and was widely covered by the general press, the Islamic heritage of southern Spain assumed a primary role, as featured both in the excursions and in the discourses delivered by high-ranking officials, such as General Director of Agriculture Gabriel Bornás and General Director of Architecture Francisco Prieto Moreno.<sup>25</sup> Prieto Moreno, who also participated in the Alhambra meeting, spoke on the Hispano-Islamic domestic garden in ways that anticipated some of the principles of the Manifesto.<sup>26</sup> According to his analysis, the study of the Hispano-Islamic tradition generated "splendid conclusions to be applied to the modern garden," offering a balance between the quest for comfort through technology and the desire for communion with nature.<sup>27</sup> According to Prieto Moreno, this balance was achieved in the Spanish domestic garden, with its regular, symmetrical layout and its asymmetrical plantings of cypresses (Cupressus sempervirens), orange trees (Citrus sinensis), bay (Laurus nobilis), and oleander (Nerium oleander) around a labvrinth of fountains and water channels.<sup>28</sup>

During this period, designers laid out Islamic-inspired gardens in unexpected contexts. One example is Javier de Winthuysen's scheme dating from 1950 for the Botín residence in Puente San Miguel near Santander, in northern Spain, a region where historically the Arabs had left almost no trace. In 1952, just a few months prior to the session in Granada, garden designer and prolific lecturer Teresa Ozores y Saavedra, marquise of Casa Valdés (1902–83)—who studied at the Royal Horticultural Society in England and would eventually write the book Jardines de España—presented an award-winning proposal at the Chelsea Flower Show in London that re-created the Generalife's Patio de la Acequia at a smaller scale, with a central rectangular sunken pool among box hedges.<sup>29</sup>

In contrast, the architects who attended the conference at Granada did not aspire to this folkloristic kind of imitation. Instead, by unraveling some of the underlying principles of Islamic architecture and gardens, they hoped to find a way to leave academicism behind. As Chueca Goitia asserted, the Islamic garden, following the Qur'an, represented a paradise on earth, with "the blessed" resting in floating pavilions among clear waters and greenery. 30 The patio was an outdoor room, vaulted by the sky, while lightweight and transparent architecture enabled the garden to penetrate the home with its scents and sounds.<sup>31</sup> The Hispano-Islamic garden offered an ideal model for contemporary gardens in Spain, with its terracing designed for the steep topography and arid climate of the Iberian Peninsula. Its basic element, water, adopted different geometrical forms corresponding to its three natural states: bubbling forth from hidden sources, symbolized by circular fountains; flowing movement, symbolized by linear waterways; and stillness, symbolized by rectangular pools.<sup>32</sup>

Some scholars argue that the Alhambra Manifesto had a limited impact, given the dominance of the established architects who attended the Granada conference, but a number of these figures, such as Francisco Prieto Moreno, enjoyed influential positions in Franco's government. As general director for architecture in Spain (1946-60), Prieto Moreno exercised direct influence on national building policies.<sup>33</sup> He not only controlled the Boletín de Información de la Dirección General de Arquitectura, one of Spain's most important professional journals, but he also served as chief conservation architect at the Alhambra (1937-77), where he succeeded Torres Balbás. At the Nasrid site, like his predecessor, Prieto Moreno not only directed the restoration of the buildings and gardens but also implemented his own designs.<sup>34</sup> He spearheaded the transformation of the historic monastery of Saint Francis within the Alhambra precinct into a parador (a state-owned hotel) and converted the old medieval kitchen gardens below the Generalife into the so-called New Gardens, with an adjoining open-air theater.<sup>35</sup> The theater, with its stage outlined by cypress trees (Cupressus sempervirens), hosts the International Theater and Dance Festival to this day. Despite the conservative nature of these interventions, Prieto Moreno contributed to the general popularity of Hispano-Islamic gardens through publications such as Los jardines de Granada and El Generalife y sus jardines.<sup>36</sup> He also had a direct impact on architecture practitioners as a lecturer at the School of Architecture in Madrid, where he taught a course on garden and landscape history at the same time that another advocate of the Manifesto, Fernando Chueca Goitia, was spreading his creed among a younger audience.<sup>37</sup>

The Manifesto's influence can thus be traced through the work of those architects who were involved in the Granada sessions as well as through that of the following generation (Figure 4).<sup>38</sup> However, it is in the design for single-family houses that became popular in the 1950s where this interaction between indoor and outdoor space is most clearly seen, as demonstrated in a design by Miguel Fisac for his own house in Madrid (Figures 5 and 6). Sited above a long garden at the top of a hill, the house consisted of three wings surrounding a smaller garden that was eventually engulfed by additional bedrooms. Placed initially behind the house, the small garden included a pond with granite boulders and probably a Japanese pagoda tree (Sophora japonica). Transformed into an inner courtyard covered by a translucent roof, the garden was ultimately integrated into the living room through the elimination of the two front glass panels. Ivy (Hedera helix) covered its two back walls, while indoor species replaced the initial plantings, such as a giant yucca (Yucca elephantises) and a Swiss cheese plant (Monstera deliciosa), and a rubber fig tree (Ficus elastica) replaced the Japanese pagoda tree. Although the landscaping recalled models Fisac had seen in his travels to China and Japan, the integration of the

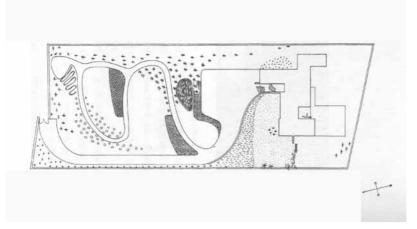


**Figure 4** Francisco de Asìs Cabrero, Feria del Campo fairgrounds, Madrid, 1950 (authors' sketch).

garden into the living room through elements such as a green corner behind the fireplace recalled the integration of green spaces into the chambers of the Alhambra.<sup>39</sup> The scents of flowering plants and the whispering sound of the indoor fountain permeated this inner space much in the fashion of the water basins in the Abencerrajes and Dos Hermanas halls flanking the Patio de los Leones at the Alhambra.<sup>40</sup>

At the same time, as a number of scholars have noted, the double view of nature offered by the living room recalled the views at certain spots in the Alhambra, such as the Hall of Comares and the portico of the Partal Palace, where the intimate perspective of the patio contrasted with the wide prospect of the landscape. Fisac later observed, "[The Alhambra] is one of the buildings from which I have learned the most, together with Japanese architecture. In a 1994 lecture titled "What I Have Learned from the Alhambra," delivered at the Official College of Architects of Granada, he underlined the importance of gardens—with their aromatic plants and flowers, as well as water in its different forms—in the creation of architecture to be experienced through all five senses.

A decade later, Fisac's unbuilt scheme in Cádiz for Viscount Ednan (1968) again used a patio as the core of the house (Figure 7). A series of terraces extended the inner space outdoors along the sloping site. Fisac placed the children's area at the level of the upper terrace, the master and guest bedrooms at the intermediate level, and the entrance hall, living room, and service areas on the ground floor, close to the swimming pool. Two flights of stairs linked the three levels, a primary stair connecting the living room with the guest area and the master and children's bedrooms, and a secondary stair connecting the service rooms and children's area. This secondary staircase ended at a viewing tower that transformed the







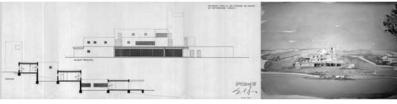






Figure 5 Miguel Fisac, plan of Fisac House at Cerro del Aire, Madrid, 1956 (Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real).

Figure 6 Miguel Fisac, Fisac House at Cerro del Aire, Madrid, 1956, exterior and interior view of living room with patio (Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real).

Figure 7 Miguel Fisac, scheme for house for Viscount Ednan, Cádiz, 1968, section, elevation, and view (Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real).

Figure 8 Partal Palace, Alhambra, Granada, fourteenth century (authors' photo).

southern elevation into a modern version of the Partal Palace and the Torre de las Damas (Figure 8). A series of courtyards separated the individual architectural elements: the entrance patio, the main court, and the service yard on the lower level; an enclosed garden between the master bedroom and the children's bedroom wings; and a stepped play area for the children along the secondary staircase (Figure 9). All these courtyards were connected by a network of water rills that recalled the design of Yusuf II's palace at the Alhambra,

traversing the living room and then flowing into the rectangular swimming pool much in the same way as water flowed into the ground-level fountain basins in the halls flanking the Patio de los Leones.44

In contrast to Fisac's designs, Cabrero's evocations of Islamic gardens assumed a more abstract character, reflecting his interest in technical construction issues. In 1954, Cabrero visited Ludwig Mies van der Rohe's buildings at the IIT campus in Chicago. 45 Mies left an enduring imprint on his

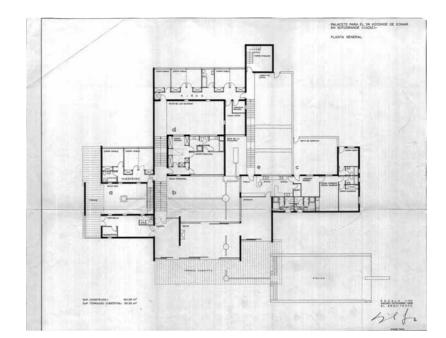
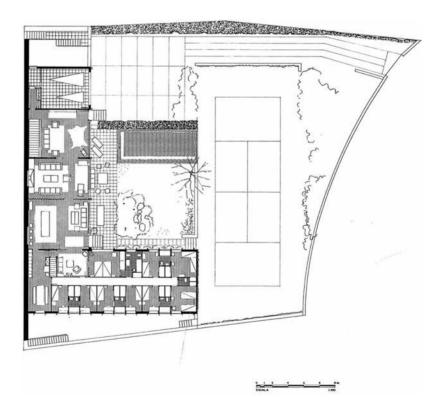


Figure 9 Miguel Fisac, plan of house for Viscount Ednan, Cádiz, 1968: a, entrance patio; b, main patio; c, service yard; d, bedroom patio; e, children's patio (Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real).

**Figure 10** Francisco de Asís Cabrero, plan of Cabrero House, Madrid, 1961–62 (FCT/P127, Cabrero Archive, Colegio Oficial de Arquitectos, Madrid).

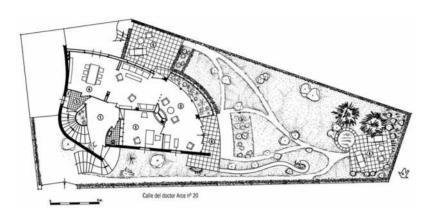


work, but Cabrero's design for his second home in Madrid (1961–62) also referenced the Alhambra's Patio de la Alberca. <sup>46</sup> The L-plan of Cabrero's steel-frame structure divided the plot into two halves (Figures 10 and 11). At the lower level, by the entrance, an ivy-covered wall separated a clay tennis court from the street. The house itself stood to the north and west, enclosing a raised courtyard on two sides that looked over the tennis court. A high clipped hedge of Arizona cypress (*Cupressus arizonica*) on the eastern flank of the courtyard concealed the

driveway from view. The courtyard also featured a porch of slender steel columns along the living room façade, visually connecting the house interior with the rectangular swimming pool set in the courtyard lawn. At opposite corners of the lawn, a Lebanon cedar (*Cedrus libani*) and a cherry plum (*Prunus cerasifera*) provided shade and color according to the season. The sensual realm of the garden enhanced the rational architecture of the house, extending it into a grass-carpeted room enclosed by green walls.







**Figure 11** Francisco de Asís Cabrero, Cabrero House, Madrid, 1961–62, garden and interior views (Philipe Imbault, Madrid).

**Figure 12** Alejandro de la Sota, plan of Aversú House, Madrid, 1955 (Fundación Alejandro de la Sota, Madrid).

Although Sota did not travel to Granada, his designs for single-family houses also reflected particular concern for the interaction between building and garden. For the Arvesú House in Madrid (1955), placed at the top of a small urban plot that sloped down toward the south, Sota made a detailed plan of the plantings (Figure 12).<sup>47</sup> A massive brick wall with almost no openings facing the street, along with a hedge of Arizona cypress (Cupressus arizonica) that outlined the site's boundaries, provided an abstract backdrop for the vertical silhouette of the aspen (*Populus tremula*) planted at the entrance. On the opposite side of the building, a winter garden and a covered area with an adjoining flower bed mediated between the living room and the open lawn. This expanse of grass, crossed by meandering paths, led down to a sundeck at the lowest part of the site, a modern version of the Alhambra's outdoor rooms, with a small round pond flanked by two cypress trees (Cupressus sempervirens). Despite the absence of a formal patio, Sota's design recalled the secret gardens of the Alhambra, hidden behind the mute walls of the street façades.

At a house built for Dr. Benigno Velázquez in Pozuelo de Alarcón (1959), Sota linked exterior and interior spaces by weaving together a carpet of vegetal and mineral textures (Figures 13 and 14).<sup>48</sup> The house stood on the northwest corner, while the rest of the site—protected from the street by a wall covered in jasmine (*Trachelospermum jasminoides*)—presented a variety of surfaces to accommodate different activities. The interior paving of the dining room extended outside for a patio with vines on the walls and sheltered by an almond tree (*Prunus dulcis*). A paved covered area also served as an exterior extension of the living room below several

existing pine trees (probably *Pinus sylvestris*). A rectangular lawn beyond ended at a swimming pool traversed by a bridge. Sota placed a sand pit on the slightly elevated roof of the garage as a play area for children, which included a slide down to the pool. A grove of *pine trees* (*Pinus sylvestris*), planted on a regular grid, filled the northeastern part of the plot, interspersed with occasional orange (*Citrus sinensis*) and olive trees (*Olea europea*). Large glass panes on the ground floor of the house allowed its interior to merge with the garden, creating a vibrant array of rooms outdoors within a regular, orthogonal matrix.

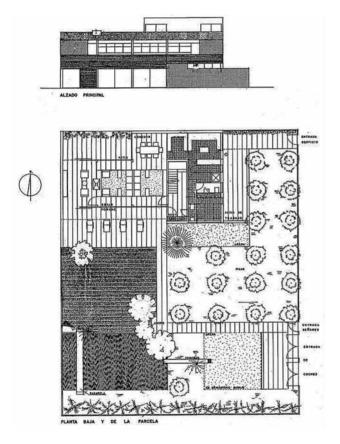
### The Hispano-Islamic Garden Revisited

Oriol Bohigas, a Catalan architect and founding member of Grupo R, stated in 1962 that the *Alhambra Manifesto* was more relevant at that time than it was when it was published. <sup>49</sup> By then Spain had become quite a different country, as its isolated, rural postwar society gave way to an expanding economy with rising living standards and international influence. The growing number of houses with gardens enabled architects to test their skills in designing living quarters as well as outside spaces. Even as the new American model of suburban living became more widespread, the Islamic tradition of the patio remained influential.

According to José Tito Rojo and Manuel Casares Porcel, Islamic gardens in Al-Andalus featured the simple division of space, orthogonal pathways, and water along their axes. <sup>50</sup> Among these gardens, they identify three main typologies: periurban agricultural plots with some planted areas for

recreation, urban gardens outside buildings, and courtyard gardens. <sup>51</sup> Mid-twentieth-century architects in Spain focused in particular on courtyard gardens, as these were better preserved than the other types in palaces and former mosques. Depending on their spatial arrangement, courtyard gardens can be again divided into two further typologies: those organized around a single axis and those employing the biaxial structure of the *chahar-bagh*. <sup>52</sup>

The design of the *chahar-bagh*—literally "four gardens"—usually features two axes intersecting at right angles. These axes do not always consist of four garden plots defined by crossed pathways; they may sometimes be suggested by the



**Figure 13** Alejandro de la Sota, plan of Velázquez House, Pozuelo de Alarcón, Spain, 1959 (Fundación Alejandro de la Sota, Madrid).

**Figure 14** Alejandro de la Sota, Velázquez House, Pozuelo de Alarcón, Spain, 1959, views from living room and porch (Fundación Alejandro de la Sota, Madrid).

placement of a central fountain or pavilion aligned with the doorways on the perimeter walls.<sup>53</sup> As D. Fairchild Ruggles observes, the placement of a pavilion above the intersection of the two axes came to be seen as a symbol of power.<sup>54</sup> Such a pavilion might also appear where the axes meet the façade of an adjacent building, as in the Patio de los Leones at the Alhambra (Figure 15). The monoaxial garden type, on the other hand, is elongated, with a water feature along its main axis. The walls running parallel to the water axis are usually plain, with almost no windows or ornaments, while the short façades often display richly patterned latticed screens or galleries, as in the Alhambra's Patio de la Alberca (Figure 16).

In the decades after the *Manifesto*'s publication, Spanish architects sought to reinterpret these two garden archetypes as they increasingly incorporated outdoor space into the layout of the modern house. As in the case of the Huarte House in Madrid (1965–67), designed by José Antonio Corrales (1921–2010) and Ramón Vázquez Molezún (1922–93), the house now merged with the garden rather than standing out against it, transforming the garden in its turn into an additional room. <sup>55</sup> The Huarte House was arranged around a series of landscaped courtyards, with a raised pool in the main patio. It recalled the Islamic architecture of southern Spain without reproducing its elements, following the line of argument advanced by Chueca Goitia at the Alhambra meeting (Figure 17).

Corrales and Molezún sank the service wing along the southern boundary halfway into the ground, siting a terraced garden on its stepped roof. This garden could be contemplated from the living room and from reception areas grouped in a parallel tract further north. The architects divided the space between the wings into three patios with two perpendicular volumes housing the dining room and the bedrooms. These three patios built up a sequence that became increasingly private from east to west. The first courtyard, in direct contact with the formal living room, featured an upper terrace planted with poplars (*Populus tremula*), while pansies (*Viola tricolor*), narcissus (*Narcissus spp.*), hyacinths (*Hyacinthus orientalis*), hydrangeas (*Hydrangeas spp.*), azaleas (*Rhododendron spp.*), and roses (*Rosa spp.*) filled the lower steps. <sup>56</sup> Three flat, round





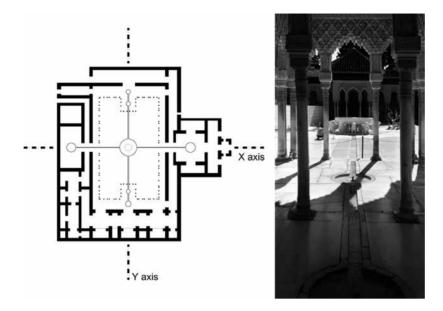


Figure 15 Patio de los Leones, Alhambra. Granada, fourteenth century (authors' drawing and

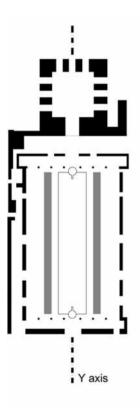
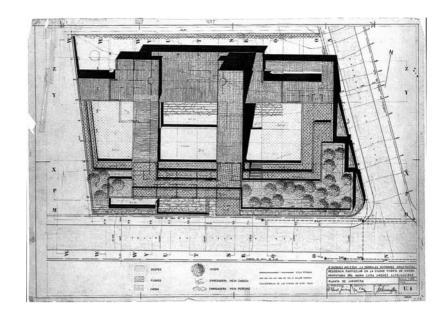




Figure 16 Patio de la Alberca, Alhambra, Granada, fourteenth century (authors' drawing and photo).

marble basins set flush with the lawn on its central axis, as a modern interpretation of an Islamic fountain, collected the water of three vertical jets. In contrast, the central courtyard was more informal, expanding the family living room with a paved area protected by a lightweight pergola carrying Chinese wisteria (Wisteria sinensis) and ivy (Parthenocissus tricuspidata) (Figure 18). This patio also featured a raised swimming pool recalling the albercas, or irrigation tanks, of southern Spain. The dining room, set between the formal and family

courtyards and with extensive glazing on both sides, performed as an enclosed garden pavilion, enjoying both the shade of the roof and the cross-breeze. The third courtyard, on the west end, was the most intimate, with the bedrooms overlooking a lawn with a weeping willow (Salix babylonica) and a catalpa (Catalpa speciosa) protecting the façades from the afternoon sun. Again, three round, flat basins—this time in polished pink granite—marked the long axis of the patio with their water jets.



**Figure 17** José Antonio Corrales and Ramón Vázquez Molezún, plan of Huarte House, Madrid, 1965–67 (Archivo Molezún, Colegio Oficial de Arquitectos, Madrid).

**Figure 18** José Antonio Corrales and Ramón Vázquez Molezún, Huarte House, Madrid, 1965–67, eastern courtyard (left) and central courtyard (right) (authors' photo).



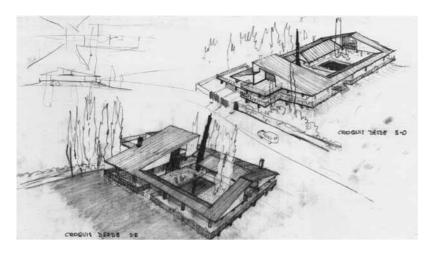


The composition of this house and garden challenged the traditional object–ground relationship by creating an inhabited topography. Here the variegated tile of the façades and paved surfaces and the green-red hues of the ivy (*Parthenocissus tricuspidata*) in the planters and along the walls blended the building into its surroundings and transformed the entire house into a garden. While some critics saw parallels to modern Scandinavian architecture, Corrales and Molezún explicitly insisted that, in turning its back to the street and looking for an inner landscape, the Huarte House was "more Islamic and Spanish than Nordic."

A few years later, Fernando Higueras (1930–2008) designed a house for actress Nuria Espert in Alcoceber (1968–71) that echoed the design of the Generalife. Standing just outside the Alhambra, the Generalife consisted of a series of narrow terraces irrigated by the Acequia Real, the 6-kilometer-long channel providing water for the upper city. The Acequia Real ran along the main axis of the elongated main court-yard, while a lightweight arcade offered views both across the intimate realm of the patio and out to the distant land-scape. Much in the same way, Higueras elevated the Espert

House on a platform, enclosing the patio in close connection to the living room by placing a lightweight gallery on its perimeter to meditate the intimate scale of the courtyard and the distant views of the coast (Figure 19). Again, a swimming pool assumed the role of the *alberca* as in the monoaxial schemes of the Alhambra. A group of cypress trees (*Cupressus sempervirens*) at one end of the courtyard further recalled the Islamic tradition (Figure 20).

Another member of the younger generation, Javier Carvajal (1926–2013), perhaps most explicitly interpreted the legacy of the Hispano-Islamic garden in a series of villas for the Spanish elite. Two houses on the outskirts of Madrid—the García-Valdecasas House for his father-in-law (1964–65) and the Carvajal House for himself (1964–65)—occupied adjoining plots, both looking toward the mountains to the northwest.<sup>59</sup> The García-Valdecasas house had two levels, while Carvajal's one-story house extended across a green terrace, its stepped geometry recalling that of the gardens of the Partal Palace in the Alhambra. The core of the house gravitated around two patios (Figure 21). The entrance patio featured ivy (*Hedera helix*) climbing on the concrete wall, two giant





**Figure 19** Fernando Higueras, sketch of Espert House, Alcoceber, Spain, 1968–71 (Fons Higueras, Arxiu Històric, Col·legi d'Arquitectes de Catalunya, Barcelona).

**Figure 20** Fernando Higueras, Espert House, Alcoceber, Spain, 1968–71, courtyard view (Fundación Fernando Higueras, Madrid).

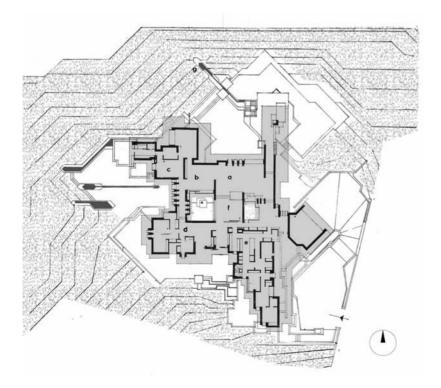


Figure 21 Javier Carvajal, plan of Carvajal House, Madrid, 1964–65: a, living room; b, library; c, master bedroom; d, children's area; e, service area; f, dining room; g, water channel (AGUN / Fondo Javier Carvajal Ferrer / Proyecto 164, Archivo General, Universidad de Navarra, Pamplona, colored by author).

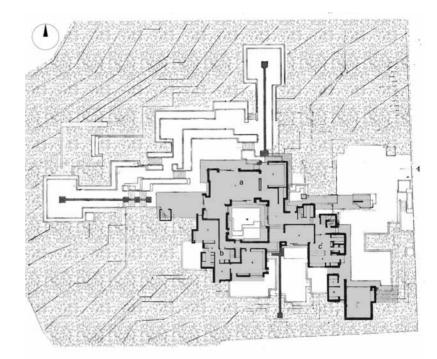


Figure 22 Javier Carvajal, plan of Garcia-Valdecasas House, Madrid, 1964–65: a, living room; b, master bedroom; c, children's area (AGUN / Fondo Javier Carvajal Ferrer / Proyecto 157, Archivo General, Universidad de Navarra, Pamplona).

yuccas (Yucca elephantises), and a Swiss cheese plant (Monstera deliciosa), among other plants. The larger courtyard was enclosed by the living room, the library, the master bedroom and children's area, and the dining room. With a cypress tree (Cupressus sempervirens) and a square fountain set at ground level, it recalled the Andalusian origins of the architect's wife, writer Blanca García-Valdecasas. A series of stepped platforms along the building's perimeter allowed the living quarters to sprawl into the garden. A fountain with a water channel extended the living room outdoors to the northeast, while the deck along the bedroom wing on the west served as an outdoor room with the sky as a vault, as stated in the Alhambra Manifesto.

Counterbalancing the horizontality of his own residence, Carvajal chose a vertical scheme for the neighboring García-Valdecasas house. Its two floors gathered around a single patio and its series of fountains and stepped terracing translated the vernacular system of cultivating a sloping hillside into the Brutalist forms of the late 1960s (Figure 22). The design incorporated key characteristics of Hispano-Islamic architecture, such as the fragmentation of space through a clustered arrangement of rooms; the use of courtyards to articulate spatial sequences; the extension of the building's geometry to organize outdoor space; and the use of fountains, water channels, and pools to structure the gardens. Three water channels on the house's perimeter linked the intimate space of the interior patio with the distant views. To the north, a water channel ended in a square, sunken pool visually connecting the open vista with the private realm of the family room, and a similar water channel linked the dining room with the southern garden. To the west, a cascading water

feature dividing the flight of stairs and connecting the living room with the lower parts of the garden recalled the water stairs at the Generalife. The water channel ended in a square sunken pool with a low, round fountain basin flanked by four cypress trees (*Cupressus sempervirens*) framing the mountainous profile of the horizon (Figure 23). This garden and its water feature oriented the viewer to the mountains in the same way the Alhambra precinct, with its galleries, pavilions, and oriels, framed the views of the Sierra Nevada. Carvajal's designs were among the few twentieth-century examples included in Casa Valdés' volume on Spanish gardens, which she pointed to as proof that "Arab traditions persist in modern dwellings in Spain."

Carvajal used these themes once again in the house he designed for Nicholas Biddle Ducke in Cádiz (1965-67) (Figure 24).<sup>61</sup> Here, concrete gave way to simpler materials, such as plastered walls, as recommended in the Manifesto. This cluster of cubic prisms was stitched together by means of light, arched galleries defining patios and outdoor rooms. A module 5 meters square spanned by a cross vault provided the basic element for both interior and outdoor spaces, offering a system that could grow in any direction to meet specific needs. Three wings-hosting the children's bedrooms, the master bedroom, and the living quarters—embraced a patio closed on its fourth side by a transparent arcade of five cross-vault modules. Two water rills intersected at right angles in a modern version of the chahar-bagh in the square courtyard at the core of the house. The house's geometry also extended into the adjoining terraces, the swimming pool, and small fountains beyond (Figure 25).

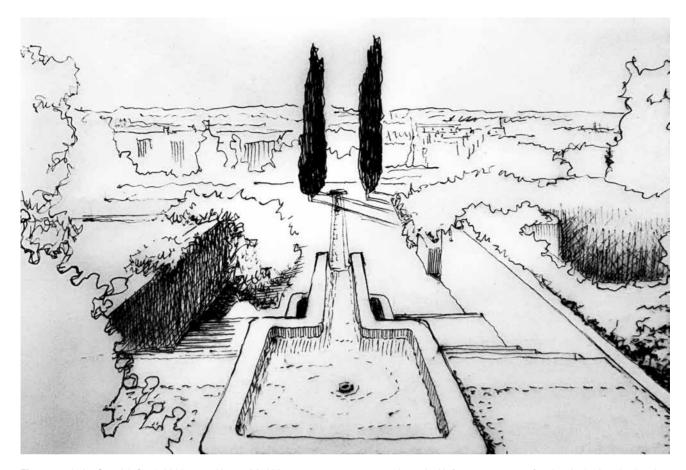
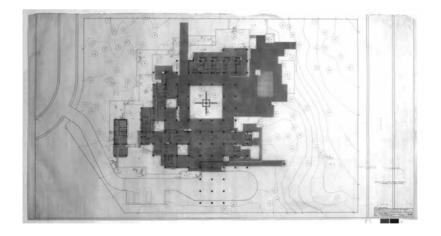


Figure 23 Javier Carvajal, Garcia-Valdecasas House, Madrid, 1964–65, western water channel with four cypress trees framing the horizon (authors' sketch).



**Figure 24** Javier Carvajal, plan of Nicholas Biddle Ducke House, Càdiz, 1965–67 (AGUN / Fondo Javier Carvajal Ferrer / Proyecto 166, Archivo General, Universidad de Navarra, Pamplona; shading by authors).

As these examples suggest, the writings of Forrestier, Rubió i Tudurí, and especially Torres Balbás, who shared his expertise with generations of students across almost three decades of teaching, helped to spread a wider appreciation of Spain's Islamic heritage. However, it was mainly through some of Torres Balbás's students—especially Chueca Goitia—that Spanish architects began to see the Alhambra not merely as an object inherited from the past but also as the path toward a future Spanish modernism, much as Gunnar Asplund

and Alvar Aalto were influenced by their experiences in the study of vernacular architecture in Sweden and Finland. 62 The conference at the Alhambra in 1952 and the *Manifesto* of the following year pointed to the palace and its gardens not as a formal model but as an inspiration to solve architectural problems in a new way, while leaving rigid academicism behind. This new approach not only enabled architects to reconcile the principles of modernism with local traditions but also endowed the garden with a new significance and relevance for

Figure 25 Javier Carvajal, Nicholas Biddle Ducke House, Càdiz, 1965–67, exterior and interior views (Fondo Javier Carvajal Ferrer, Archivo General, Universidad de Navarra, Pamplona).

**Figure 26** Fernando Higueras, reception palace for Sheikh Saif, Abu Dhabi, 1983, garden view (Fundación Fernando Higueras, Madrid).







the architectural design process, further blurring the boundaries between interiors and exteriors. Spanish architects of the 1950s and 1960s looked to the Alhambra as a paradigm of modern architecture and sought to emulate its buildings and gardens not in their meanings or forms but in their attention toward nature, materials, and place. According to Torres Balbás:

The sensation created by these [Islamic] dwellings, in which [the users] try to enclose part of nature within the privacy of the home, is completely opposed to modern single-family houses, where exterior walls are substituted with plate glass in the effort to live in the open countryside, rejecting the qualities of domestic intimacy and modesty that Oriental civilization values so much even today. 63

Following their 1952 encounter with the Alhambra, Spanish architects found new ways to reconcile the imported ideals of plate-glass modernism with the inherited sense of intimacy and modesty defended by Torres Balbás.

While Spanish architects of the 1950s and 1960s interpreted Hispano-Islamic architectural principles in an abstract way, without reproducing its formal features, the oil crisis of the early 1970s introduced an unexpected twist, as Middle Eastern nationals from oil-producing countries began purchasing property in the Mediterranean, creating new opportunities for architectural commissions. As the values of modern architecture began to be questioned, abstract interpretations of the Hispano-Islamic garden gave way to more literal quotations of elements and forms. In two designs for the United Arab Emirates, a hotel in Sharjah (1977) and a conference center in Abu Dhabi (1982), Fisac employed latticed façades, lush gardens, and reflecting pools.<sup>64</sup> In an international

competition for a hotel in Mosul, Iraq (1979-80), Corrales arranged the rooms around three courtyards with palm trees and sunken water canals.<sup>65</sup> Fernando Higueras, explicitly referencing what he called "the best Arab architecture of the past," prepared designs for a residential development (1982) and a reception palace for Sheikh Saif (1983) in Abu Dhabi (Figure 26).66 With Rafael de La-Hoz and Joaquín Loraque, he also designed several palaces, including one for Emir Henani in Jeddah, Saudi Arabia (1981).<sup>67</sup> Carvajal created villa designs for chiefs of state of the Arab League in Bahrain (1982) in which he returned to themes he had explored in the 1960s, such as the use of water rills and four-part gardens.<sup>68</sup> All of these proposals from the 1970s and early 1980s made explicit reference to Islamic architectural elements, such as domes, pointed arches, and intricate latticework. At a point when the modern movement in architecture was no longer accepted as a universal truth, renewed interest in architectural history also meant renewed interest in Hispano-Islamic heritage. Within the context of postmodernism, the complex and contradictory lessons of the Alhambra remained as relevant as ever.

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### Notes

- 1. "El jardín se embebe en la casa, o la casa se desparrama en el jardín." Fernando Chueca Goitia, Invariantes castizos de la arquitectura española; Invariantes en la arquitectura hispanoamericana; Manifiesto de la Alhambra (Madrid: Editorial Dossat, 1981), 239. Unless otherwise noted, all translations are our own.
- 2. "El jardín, a su vez, se acota y se limita como una estancia habitable cuyo techo es el azul." Chueca Goitia, 239-40.
- 3. Ernesto Nathan Rogers, Editoriali di architettura (Turin: Einaudi, 1968). Team 10 was a group of younger architects who criticized CIAM's dogmatic approach to architecture and urbanism after World War II.
- 4. Fernando Távora, "O problema da casa portuguesa," Aléo, no. 9 (Nov. 1945), 10. Two years later, Távora published a second version of this essay with some variations. We thank Dr. Silvia Cebrián for sharing her insights on these texts with us.
- 5. Grupo R was initially established by José Antonio Coderch (1913-84), Manuel Valls (1912-2000), Joaquim Gili (1916-84), Josep Maria Sostres (1915-84), Josep Maria Martorell (1925-2017), Oriol Bohigas (b. 1925), Antoni de Moragas (1913-85), and Josep Pratmarsó (1913-85), but its membership grew during the following years. See Paloma Barreiros, "José Antonio Coderch y el Grupo R," Arquitectura, no. 268 (Sept./Oct. 1987), 104-13.
- 6. Carlos Flores, Arquitectura española contemporánea, vol. 1 (Madrid: Aguilar, 1961), 230.
- 7. Fernando Chueca Goitia, "Sesión de Crítica de Arquitectura: El Ministerio del Aire (Luis Gutiérrez Soto)," Revista Nacional de Arquitectura, no. 112 (Apr. 1951), 28-43.
- 8. Fernando Chueca Goitia, "Palabras preliminares a la nueva edición del Manifiesto de la Alhambra," in Manifiesto de la Alhambra, ed. Ángel Isac (Granada: Fundación Rodríguez-Acosta and Delegación de Granada del Colegio Oficial de Arquitectos de Andalucía Oriental, 1993), 12.
- 9. "Orden del Ministerio de Gobernación [Order of the Ministry of Government], 24 February 1940," Boletín de la Dirección General de Arquitectura, nos. 29-30 (July 1942), 9.
- 10. "Sesión de Crítica de Arquitectura: Sesiones celebradas en la Alhambra durante los días 14 y 15 de octubre de 1952," Revista Nacional de Arquitectura, no. 136 (Apr. 1953), 13-50.
- 11. Alfonso Muñoz Cosme, La vida y la obra de Leopoldo Torres Balbás (Sevilla: Junta de Andalucía, 2005), 152.
- 12. See Leopoldo Torres Balbás, La Alhambra y el Generalife (Madrid: Plus Ultra, 1953); Leopoldo Torres Balbás, En torno a la Alhambra (Madrid: Consejo Superior de Investigaciones Científicas, 1960).
- 13. Chueca Goitia, Invariantes castizos, 55-81.
- 14. See Alejandro de la Sota, "Sesión de Crítica de Arquitectura: La arquitectura y el paisaje," Revista Nacional de Arquitectura, no. 128 (Aug. 1952), 35-48; Luis Ruidor Carol, "Sesiones de Crítica de Arquitectura: La arquitectura y la jardinería," Revista Nacional de Arquitectura, no. 163 (July 1955), 21-28.
- 15. Ferdinand Bac, Les Colombières: Ses jardins et ses décors (Paris: Louis Conard, 1925). Although Bac had a crucial influence on architects of the time, such as Luis Barragán, his work does not seem to have been very well known in Spain, where none of his publications on gardens can be found in the library catalogues of architectural schools or architects' associations in Madrid and Barcelona. See Keith Eggener, Luis Barragán: Gardens of El Pedregal (New York: Princeton Architectural Press, 2001), 7-8, 75-76, 92.
- 16. Jean-Claude Nicolas Forestier, "Jardines andaluces," Arquitectura, no. 39 (June 1922), 298-306.
- 17. Nicolás Rubió i Tudurí, El jardín meridional (Barcelona: Salvat, 1934).
- 18. Nicolás María Rubió i Tudurí, Del paraíso al jardín latino: Origen y formación del moderno jardín latino (1953; repr., Barcelona: Editorial Tusquets, 1981),
- 19. Javier de Winthuysen, Jardines clásicos de España: Castilla (Madrid: Imprenta Industrial Gráfica, 1930).

- 20. See "Jardines unifamiliares: Residencia de los marqueses de a Romana" and "Jardines de instituciones y servicios públicos: Escuela de Caminos," both in Javier de Winthuysen, Jardinero (exhibition catalogue), ed. Carmen Añón (Madrid: Consejo Superior de Investigaciones Científicas, 1986), 52-53, 87.
- 21. Javier de Winthuysen, "Jardines sevillanos," La Voz, 31 May 1929, 3; Javier de Winthuysen, "Influencias del estilo sevillano," La Voz, 5 July 1929, 4.
- 22. Instituto Andaluz del Patrimonio Histórico, Leopoldo Torres Balbás y la restauración científica (exhibition catalogue) (Seville: Junta de Andalucía, 2013).
- 23. From 1923 to 1936, Torres Balbás kept an accurate diary of the works he carried out at the Alhambra and Generalife, including the extensive plantings within and around both precincts. These records were later published in the journal Cuadernos de la Alhambra 1-6 (1965-70).
- 24. José Tito Rojo, "El jardín hispanomusulmán: La construcción histórica de una idea," Awraq, no. 11 (2015), 53-56.
- 25. See Richard H. Coleman, "International Conference at Madrid," Landscape Architecture 41, no. 3 (Apr. 1951), 129-32; "El segundo Congreso Internacional de Arquitectura Paisajista," Cortijos y Rascacielos, no. 60 (1950), v-vii.
- 26. Francisco Prieto Moreno, "El jardín doméstico hispanoárabe," Boletín Informativo de la Dirección General de Arquitectura, no. 17 (1950), 5-8. Miguel Fisac, who eventually took part in the Alhambra sessions, participated in the IFLA conference as a member of the organizing committee.
- 27. Prieto Moreno, 5.
- 28. In this article, we use the term water channel to refer to linear waterways set either above ground level or flush with the pavement. We refer to narrower water channels cut into the surface of the pavement as rills.
- 29. Teresa Ozores y Saavedra, marquise of Casa Valdés, Fardines de España (Madrid: Aguilar, 1973). The marquise of Casa Valdés was a key figure in the promotion of garden and landscape design in Spain during the second half of the twentieth century, when she helped to expand the appreciation of gardens to a wider audience as a lecturer and active member of the International Association of Dendrology, the Sociedad Española de Amigos del Paisaje y del Jardín, and the Sociedad de Amigos del Jardín Botánico, among others. On her garden at the Chelsea Flower Show, see Brent Elliott, RHS Chelsea Flower Show (London: Frances Lincoln, 2013).
- 30. Chueca Goitia, Invariantes castizos, 239.
- 31. Chueca Goitia, 239.
- 32. Chueca Goitia, 240.
- 33. Javier Martín González, "El manifiesto de Fernando Chueca Goitia: Algunas consideraciones en torno a la autoría del Manifiesto de la Alhambra," Archivo Español del Arte 89, no. 355 (July-Sept. 2016), 281-98.
- 34. Aroa Romero Gallardo, Prieto Moreno, arquitecto conservador de la Alhambra (1936-1978): Razón y sentimiento (Granada: Universidad de Granada y Patronato de la Alhambra y el Generalife, 2014).
- 35. See Francisco Prieto Moreno, "Hospedería de San Francisco en la Alhambra de Granada," Revista Nacional de Arquitectura, no. 84 (Dec. 1948), 489-92; Francisco Prieto Moreno, "Teatro al aire libre en los jardines del Generalife," Revista Nacional de Arquitectura, no. 148 (Apr. 1954), 21-25.
- 36. Francisco Prieto Moreno, Los jardines de Granada (Madrid: Cigüeña, 1952); Francisco Prieto Moreno, El Generalife y sus jardines (Madrid: Everest, 1976).
- 37. The only two universities in the country offering degrees in architecture at the time were those in Madrid and Barcelona.
- 38. Some public structures of the time already featured interplay between buildings and gardens, as was the case with Cabrero's proposed plan for the Feria del Campo fairgrounds in Madrid (1948-75), which the architect was designing when he visited Granada. The exhibition pavilions were linked by arcades enclosing gardens, many of them in the asymmetrical fashion of the Alhambra. See Francisco de Asís Cabrero, "Primera Feria Nacional del Campo," Informes de la Construcción, no. 27 (1951), 169-73. Almost at the same time, Fisac designed the Teacher Training Center in Madrid (1953-57) as a set of brick prisms linked by slender concrete canopies defining a series of

- landscaped patios. See Miguel Fisac, "Centro de Formación del Profesorado. Madrid, 1ª y 2ª etapa de construcción. Plano de jardinería," 1953, plan 54\_10, Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real.
- 39. See Sonia Vázquez-Díaz and Luis Suárez Mansilla, "La estética taoísta en la casa de Miguel Fisac en el Cerro del Aire," Boletín Académico: Revista de investigación y arquitectura contemporánea Escuela Técnica Superior de Arquitectura, no. 4 (2014), 43-52. As a founding member of Opus Dei, Miguel Fisac had the chance to travel abroad at a time when Spain was internationally isolated and most Spanish citizens were not allowed to do so. He traveled to the Far East from January to March 1953, shortly after the Granada meeting. Nicolás Maruri, "Como trazar el futuro," in Miguel Fisac: Medalla de Oro de la Arquitectura 1994, ed. Andrés Cánovas (Madrid: Consejo Superior de Arquitectos de España, 1997), 17-18.
- 40. Andrés Cánovas, "Cronología 1913-1959," in Cánovas, Miguel Fisac, 43. 41. D. Fairchild Ruggles, Islamic Gardens and Landscapes (Philadelphia: University of Pennsylvania Press, 2008), 5; José Tito Rojo and Manuel Casares
- Porcel, El jardín hispano-musulmán: Los jardines del Al-Andalus y su herencia (Granada: Universidad de Granada, 2011), 64.
- 42. Miguel Fisac, "Teacher Training Center," AV Monographs, no. 101 (May/ June 2003), 40.
- 43. Miguel Fisac, "Lo que he aprendido de la Alhambra" (lecture at the Official College of Architects of Granada, 21 Apr. 1994), in Cánovas, Miguel Fisac, 10-13.
- 44. Miguel Fisac, "Anteproyecto para palacete Vizconde Ednan, Sotogrande, Cádiz," scale 1:100, Dec. 1968, plan 249\_1, Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real.
- 45. Sara de la Mata and Enrique Sobejano, "Entrevista a Francisco de Asís Cabrero," Arquitectura, no. 267 (July/Aug. 1987), 110-15.
- 46. Francisco de Asís Cabrero, "Casa Cabrero II: Avenida de Miraflores 14, Ciudad Puerta de Hierro, Madrid," 1961-62, folder FCT/P127, Legado Cabrero, Archivo Histórico, Colegio Oficial de Arquitectos, Madrid.
- 47. Alejandro de la Sota, "Proyecto de hotel para el Dr. Arvesú en la calle Dr. Arce en Madrid," 1955, plan 55\_Z\_PL\_14, Fundación Alejandro de la Sota, Madrid.
- 48. Alejandro de la Sota, "Proyecto de hotel para el Dr. Velázquez en la calle Dr. Velázquez en Pozuelo, Madrid," scale 1:100, Mar. 1959, plan 59\_B\_PL\_A\_2\_lg, Fundación Alejandro de la Sota, Madrid.
- 49. Oriol Bohigas, "Granada, hoy," Arquitectura, no. 45 (Sept. 1962), 3-15.
- 50. Tito Rojo and Casares Porcel, El jardín hispano-musulmán, 107.
- 51. Tito Rojo and Casares Porcel, 74-107.
- 52. These are not the subcategories that Tito Rojo and Casares Porcel use, but we find them to be more suitable than their subcategories for classifying the modern interpretations that Spanish architects made of the Hispano-Islamic models. For a definition of the chahar-bagh, see Geoffrey Jellicoe et al., The Oxford Companion to Gardens (Oxford: Oxford University Press, 1986), 277.
- 53. See Ruggles, Islamic Gardens, 39-48. Ruggles points out that the term chahar-bagh has not always described a garden divided into four parts or multiples of four, as historians have believed until recently, although this is most frequently the case. Ruggles, 40, 43.

- 54. Ruggles, 42.
- 55. José Antonio Corrales and Ramón Vázquez Molezún, "Casa Huarte," in Corrales y Molezún: Medalla de Oro de la Arquitectura 1992, ed. Andrés Cánovas and Restituto Bravo (Madrid: Consejo Superior de Arquitectos de España, 1993), 114-27,
- 56. Consuelo M. Correcher, The Gardens of Spain (New York: Harry N. Abrams, 1993), 32-33.
- 57. Carmen Castro, "Los arquitectos critican sus obras: J. A. Corrales, R. Vázquez Molezún," Arquitectura, no. 154 (Oct. 1971), 27.
- 58. Fernando Higueras, "Vivienda para Nuria Espert en Alcoceber," scale 1:100, ca. 1968, plan H126F/5/27.1, H126F/5/27.1, Fons Fernando Higueras Díaz, Arxiu Històric, Col·legi d'Arquitectes de Catalunya, Barcelona.
- 59. See Javier Carvajal, "Provecto de vivienda unifamiliar en Somosaguas (Madrid) para los Sres. de García Valdecasas," Dec. 1966, plan 166\_planta, inventario provisional Carvajal, Archivo General, Universidad de Navarra, Pamplona; Javier Carvajal, "Proyecto de vivienda unifamiliar en Somosaguas (Madrid) para los Sres. de Carvajal," June 1966, plan 164\_planta, inventario provisional Carvajal, Archivo General, Universidad de Navarra, Pamplona.
- 60. Casa Valdés, 7ardines de España, 264-65.
- 61. Javier Carvajal, "Proyecto de vivienda unifamiliar en Sotogrande, Cádiz, para Nicholas Biddle Ducke," Nov. 1965, plan 157\_plano\_1, inventario provisional Carvajal, Archivo General, Universidad de Navarra, Pamplona.
- 62. Aalto visited Spain in 1951 to give lectures in Barcelona and Madrid, which left a lasting impression on many Spanish architects of the time. See Fernando Chueca Goitia, "El arquitecto Alvar Aalto en Madrid," Boletín de la Dirección General de Arquitectura, no. 13 (1951), 13-20. Asplund was less well known, but he was one of the few architects with whom Fisac was impressed after his visits to central and northern Europe in the late 1940s and early 1950s. Maruri, "Como trazar el futuro," 18.
- 63. "El sentido de estas viviendas, en las que se pretende encerrar un trozo de naturaleza en la intimidad del hogar, es opuesto por completo al que inspira las modernísimas casas unifamiliares, cuyos muros exteriores se sustituven por vidrieras para vivir en medio del campo ilimitado, con desprecio de la intimidad y del recato del hogar, tan caros hasta hoy a la civilización oriental." Leopoldo Torre Balbás, "Patios de crucero," Al-Andalus 33 (1958), 323.
- 64. See Miguel Fisac, "Hotel Golf Star, Sharjah," 1977, plan 303\_Hotel Golf Star, Sharjah, Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real; Miguel Fisac, "Hotel v edificio para conferencias internacionales: Abu Dabi," 1982, plan 342\_Concurso de Hotel y edificio para conferencias internacionales, Abu Dabi, Fundación Miguel Fisac, Colegio Oficial de Arquitectos, Ciudad Real.
- 65. Antonio Fernández Alba, ed., Corrales y Molezún (Madrid: Xarait Ediciones, 1983), 126-29.
- 66. "Nos hemos orientado a las mejores arquitecturas árabes del pasado, que a nuestro juicio todavía mantienen su vigencia y ejemplaridad." Fernando Higueras, quoted in Lola Botia, ed., Fernando Higueras: Desde el origen (1950-2008) (exhibition catalogue) (Madrid: Asimétricas, 2019), 296.
- 67. Botia, 276-79, 430-31.
- 68. Javier Carvajal, Javier Carvajal (Madrid: Munilla-Lería, 2000), 134–37.