Concrete Modernities:

Architecture, Power, and Social Transformation in Pahlavi II Iran

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Cover image. Shahyad Tower under construction, Tehran, ca. 1969.
Unidentified photographer, Hossein Amanat website.



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Acknowledgments

To my parents —
whose quiet strength became the foundation of all I am. You taught me that endurance is not resistance, but shaping time — like concrete under the sun. Your love remains my most permanent structure, subtle yet unwavering, carrying every weight I could not bear alone. Through your example, I have learned that strength is often silent, that resilience grows gradually, and that true support is both steadfast and invisible. Every lesson you imparted, every sacrifice you made, has been a pillar upon which I continue to build not only my work, but also my sense of self and purpose.

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Abstract

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A monarchy restored to power in 1953 by a foreign-organised coup could not draw authority from consent, but it could draw authority from construction. This thesis examines reinforced concrete as the instrument through which the Pahlavi state converted oil rent into visible proof of capacity between 1941 and 1979, and it proceeds from the premise that the material carried no political meaning of its own — an indeterminacy that allowed a fragmented field of ministries, private consultancies, court patrons and foreign contractors each to load the same substance with a different argument. Three questions follow: what political and economic conditions made concrete useful to a state that needed to demonstrate capacity it could not otherwise claim; how the material acquired the contested meanings it already carried before it reached a Tehran building site; and which audiences ratified, contested, or broke the meaning assigned to it at four buildings. The study adapts Ali Madanipour's distinction between the ideas, resources, and rules and agencies governing urban development, applying it to a single material rather than to a city, and reads four case studies — the Saman Towers (1968–70), the Shahyad Aryamehr Tower (1971), the Aryamehr Sports Complex (1974) and the Tehran Museum of Contemporary Art (1977) — as tests of that claim rather than as illustrations of it. An original interview with the architect Kamran Diba, conducted in June 2026, supplies primary evidence where the archival record is silent, most consequentially on the construction workforce; alongside it the study draws on two directly consulted period journals — the Iranian *Honar o Me'mari* [Art and Architecture Journal] and the American *Architectural Record*, each addressing the other's readership and read against one another rather than separately — and on works whose English editions were inaccessible under the research conditions described in the thesis, among them Bani-Masoud's survey and Abrahamian, consulted in Persian and translated by the author, all of it set against an established body of scholarship on Pahlavi architecture and Iranian urban development, from Grigor and Karimi to Madanipour, and on the cultural history of the material itself, chiefly Forty. Chapter 4 resolves the claim tested across the thesis by introducing a variable the case studies disclose only collectively: the audience each building was built to be seen by. Where that audience was distant and mediated, at Shahyad, the assignment of meaning held completely; where it was small and self-selecting, at the museum, it held; where it was a general readership addressed through the press, at the Saman Towers, it held under public contest and required active repair; where it was physically assembled at scale, at Aryamehr in September 1974, it failed outright. The same fragmented production system that permitted the assignment also distributed accountability, producing four distinct modes of documentary silence about construction labour — non-recording, the collective noun, the photographed but undescribed operative, and retrospective testimony — while the fate of the museum's Western collection after 1979 turned a building designed to take custody of visitors into one that took custody of objects. Concrete's indeterminacy let the Pahlavi state say whatever it liked; it could not make the statement stick.

[it]

Una monarchia reinsediata al potere nel 1953 da un colpo di Stato orchestrato dall'estero non poteva trarre la propria autorità dal consenso, ma poteva trarla dalla costruzione. Questa tesi esamina il calcestruzzo armato come lo strumento attraverso cui lo Stato pahlavide convertì la rendita petrolifera in prova visibile di capacità tra il 1941 e il 1979, muovendo dalla premessa che il materiale non possedesse un significato politico intrinseco — un'indeterminatezza che permise a un campo frammentato di ministeri, studi di consulenza privati, mecenati di corte e appaltatori stranieri di caricare la medesima sostanza di argomentazioni differenti. Ne derivano tre quesiti di ricerca: quali condizioni politiche ed economiche resero il calcestruzzo utile a uno Stato che necessitava di dimostrare una capacità che non poteva rivendicare altrimenti; in che modo il materiale acquisì i significati contesi che già recava prima di giungere nei cantieri di Teheran; e quali pubblici ratificarono, contestarono o infransero il significato a esso attribuito in quattro edifici. La ricerca rielabora la distinzione formulata da Ali Madanipour tra idee, risorse, regole e agenzie che governano lo sviluppo urbano, applicandola a un singolo materiale anziché a una città, e interpreta quattro casi studio — le Torri Saman (1968–70), la Torre Shahyad Aryamehr (1971), il Complesso Sportivo Aryamehr (1974) e il Museo di Arte Contemporanea di Teheran (1977) — come banchi di prova di tale tesi, anziché come mere illustrazioni. Un'intervista originale all'architetto Kamran Diba, condotta nel giugno 2026, fornisce evidenze primarie laddove i registri d'archivio tacciono, in particolare per quanto riguarda la manodopera edile; parallelamente, lo studio si avvale di due riviste d'epoca consultate direttamente — l'iraniana *Honar o Me'mari* [Arte e Architettura] e la statunitense *Architectural Record*, ciascuna rivolta al pubblico dell'altra e lette in chiave comparativa anziché isolata — nonché di opere le cui edizioni in lingua inglese risultavano inaccessibili nelle condizioni di ricerca descritte nella tesi, tra cui la panoramica storica di Bani-Masoud e gli studi di Abrahamian, consultati in persiano e tradotti dall'autore. Il tutto si inserisce nel corpus storiografico consolidato sull'architettura pahlavide e sullo sviluppo urbano iraniano, da Grigor e Karimi a Madanipour, e nella storia culturale del materiale stesso, in primo luogo Forty. Il Capitolo 4 sviluppa la tesi esaminata nell'opera introducendo una variabile rivelata dai casi studio solo collettivamente: il pubblico a cui ciascun edificio era destinato. Laddove tale pubblico era distante e mediato, a Shahyad, l'attribuzione di significato tenne pienamente; laddove era ristretto e autoselezionato, al museo, resse; laddove si trattava di un pubblico generico interpellato attraverso la stampa, alle Torri Saman, resse sotto pubblica contestazione e richiese una continua rettifica; laddove si trovò fisicamente riunito su vasta scala, ad Aryamehr nel settembre 1974, fallì del tutto. Lo stesso sistema produttivo frammentato che permise tale attribuzione distribuì anche le responsabilità, producendo quattro distinte modalità di silenzio documentario sulla forza lavoro edile — la mancata registrazione, l'uso del sostantivo collettivo, l'operaio fotografato ma non descritto e la testimonianza retrospettiva — mentre il destino della collezione occidentale del museo dopo il 1979 trasformò un edificio progettato per accogliere i visitatori in uno destinato a custodire oggetti. L'indeterminatezza del calcestruzzo permise allo Stato pahlavide di affermare qualunque cosa desiderasse; non poté, tuttavia, renderla duratura.

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00

Introduction

As Lawrence Vale has pointed out, "We can learn much about a political regime by observing closely what it builds."[1] Between 1941 and 1979, what the Iranian state built was concrete — dams, universities, apartment towers, monuments, stadiums, a museum — and it built at a pace that outran almost every other instrument of legitimacy available to it. A monarchy restored to power in 1953 by a foreign-organised coup could not draw authority from an unbroken constitutional record or an uncontested popular mandate. It could draw authority from construction. A tower, a stadium or a museum requires no ratification and admits no dissent; it can be poured, cured, photographed and inaugurated, and each completion stands as a fact that argument cannot easily reverse.[2] This thesis asks what happened when a state with that particular need for visible capacity met a material — reinforced concrete — that carried no fixed political content of its own, and it asks the question through four buildings and one substance rather than through policy documents alone.

The claim under examination is specific enough to be wrong. Reinforced concrete entered Pahlavi Iran already bloc-coded by its Cold War associations, part-financed by American aid, licensed from foreign manufacturers, and defended in the Iranian professional press against the Soviet example — and yet the material itself adjudicated nothing about what any given building would be made to mean. That indeterminacy was not a gap in the ideological programme; it was the mechanism that let a fragmented field of ministries, private consultancies, court patrons and foreign contractors each load the same substance with a different argument, often within the same decade and occasionally within the same street. A precast panel could argue for the market in one commission and for the nation in the next. What decided whether an argument held once it was made — what separated an assignment of meaning from a meaning that actually stuck — is the question this thesis pursues into its final chapter, where four case studies are read not as illustrations of the claim but as tests of it.

All four buildings stand in Tehran, and the concentration is not a convenience of research design. The capital was where oil rent was spent, where the foreign press corps was housed, where diplomatic visitors were taken, and where a professional and propertied class large enough to be addressed as a market had formed; it was also the only place in the country where a hundred thousand people could be assembled inside a single structure. Land reform sent a rural population toward that same city, and the inequality it produced was legible in the built fabric itself, along a north–south axis Chapter 1 traces in detail. A state that needed to be seen building had to be seen building where the seeing happened. Tehran is where the audiences were, which is why it is where the argument is. The city is therefore not the setting of this history but its material form — the place where architecture, infrastructure and planning did the work of putting political authority into daily contact with the people living under it. Section 1.5 develops that reading; what matters here is that the four buildings are not four objects that happen to share a location.

Three questions follow from this framing, and the chapters that follow answer them in sequence rather than all at once.

1. Lawrence J. Vale, *Architecture, Power, and National Identity* (London and New York: Routledge, 2008), 3.
2. This formulation of the state's legitimacy deficit and its turn to construction as a means of addressing it is developed at length in section 1.1.

First: what political and economic conditions made reinforced concrete useful to a state that needed to demonstrate capacity it could not otherwise claim? Second: how did the material acquire the specific, contested meanings it carried by the time it reached a Tehran building site — meanings assembled abroad, in professional discourse and Cold War rivalry, before a single Iranian architect specified them? Third, and most concretely: when four buildings actually tested the state's capacity to assign meaning through concrete, which audiences ratified the assignment, which contested it, and which broke it outright? The third question is the one this thesis was built to answer, and Chapter 4 answers it directly rather than leaving the result to be inferred from the case studies.

Personal Motivation and the Project's Origin

My interest in reinforced concrete and in Pahlavi-era Iranian architecture predates this thesis by some years, and it did not begin as a research question. It began as an inherited relationship to a period I did not live through and a country whose modern built environment I encountered mostly at second hand — through family memory, through photographs, through buildings that were spoken of before I ever stood in front of them. Alongside that specific inheritance sits something plainer and harder to footnote: an affection for Iran itself, its cities and their unevenly documented modern history, which does not depend on any family connection to the period this thesis examines and would have drawn me toward the subject regardless.

This thesis is, among other things, an attempt to convert both into something I could examine rather than simply hold, and to understand a period of Iranian architectural history with more precision than family memory or attachment alone could supply.

The project acquired its specific shape during the second semester of my Master's in Architecture for Sustainability at Politecnico di Torino, in a course titled Environmental History of Architecture, taught by Professor Filippo De Pieri with the assistance of Professor Sofia Nannini. That course was not about Iran. What it left behind was a habit of asking a particular question of any concrete building — not what it means, but how it was produced, under what material conditions, and by whom — and, following from that, who is named in the record of its construction and who is not. It is a question this thesis eventually answered for Pahlavi Iran at some length, in the argument Chapter 4 develops as four distinct modes of documentary silence about labour.

The Diba interview that supplies this thesis's most original evidence turned out to be the only route past that same kind of silence, and not because it was sought out as a methodological solution: the official record simply did not contain what a researcher would need. The echo is worth noting once, here, rather than argued at length. A course that treated buildings as material processes rather than as finished objects, and a conversation with an eighty-nine-year-old architect in Paris, turned out to be putting the same question to two very different archives.[3]

3. "Diba, Kamran," in *The Grove Encyclopedia of Islamic Art and Architecture*, ed. Jonathan M. Bloom and Sheila S. Blair (Oxford: Oxford University Press, 2009), Oxford Reference.

Structure of the Thesis

The chapters that follow are organised around a distinction adapted from Ali Madanipour's account of Tehran's modern development, which separates the ideas that justify a city's transformation from the resources that make transformation physically possible and the rules and agencies that decide, project by project, what actually gets built.[4] This thesis borrows that tripartite structure and applies it to a single material rather than to the city as a whole.

The adaptation is not merely convenient. Madanipour built the framework to explain why a city develops as it does, and it scales down to a single material because concrete's career in Pahlavi Iran was governed by exactly the same three forces. An ideology of quantifiable development supplied the ideas that made building the state's preferred proof of competence; oil rent, licensed technology and a cement industry established by decree supplied the resources without which no such proof was physically available; and a fragmented field of ministries, consultancies, court patrons and foreign contractors supplied the rules and agencies that determined, commission by commission, what the material would actually be used to say. Remove any one of the three and the story collapses into something less interesting — a technical history of a building material, or a political history that happens to mention architecture. What the framework preserves is the dependence of each force on the other two, which is the relationship this thesis is about.

Chapter 1 addresses ideas: the political economy of oil rent, top-down planning and the White Revolution that gave the Pahlavi state both the capital and the developmental ideology to convert into built form, and the spatial inequality that resulted in Tehran itself. Chapter 2 addresses resources: concrete's own transnational history as a Cold War material, its arrival in Iran already carrying ideological freight from elsewhere, and the institutional and technological apparatus — licensed factories, foreign consultancies, transferred expertise — through which that freight was unloaded onto Iranian sites. Chapter 3 addresses rules and agencies: four buildings, four commissioning channels, and the argument, tested rather than merely illustrated, that a fragmented procurement field let every institution load the material with the meaning its own commission required.

Chapter 4 was written last, and its content could not have been anticipated when this structure was first sketched, because a conclusion cannot be planned before the evidence it concludes from exists. It resolves the claim tested in Chapter 3 by introducing a variable the earlier chapters do not isolate: the audience each building was built to be seen by. Commissioning explains what meaning was assigned to concrete in any given case; it does not explain whether the assignment survived contact with the people who encountered the finished building, and the four case studies are read against one another to establish where along that spectrum — ratification, contest, refusal — each of them actually landed. Chapter 4 also closes the labour-silence question opened across Chapters 1 through 3, naming four distinct shapes that the absence of construction workers takes in the documentary record — non-recording, the collective noun, the photographed but undescribed operative, and the testimony that exists only because one participant remained alive to give it.

4. Ali Madanipour, *Tehran: The Making of a Metropolis* (Chichester: John Wiley & Sons, 1998), 163.

It resolves an obligation left open in section 2.2 concerning the afterlife of the Tehran Museum of Contemporary Art's Western collection after 1979, including the Warhol portraits and the vault into which fifteen hundred works disappeared for decades. And it carries a short, explicitly out-of-scope epilogue reporting damage sustained by three of the four case-study buildings during the 2026 war between Iran and the United States and Israel — a documentation note rather than an argument, since this thesis's analytical scope ends in 1979 and the war falls outside any period it is equipped to interpret.

Sources and Methodology

This thesis rests on four primary sources, one of which required a research-format response this thesis did not originally plan for.

The first is an original interview conducted with the architect Kamran Diba, designer of the Tehran Museum of Contemporary Art and the Niavaran Cultural Centre, on 4 June 2026, via WhatsApp, and translated from the original Persian by the author. Diba's testimony is cited throughout Chapters 1 through 3 wherever the documentary record is silent on a question only a surviving participant could answer — most consequentially on the composition of the workforce that built the museum and the Saman Towers, a body of men displaced by land reform and land-poor migration whom no archival source names, counts or describes. What that reliance on a single interview conducted fifty years after the fact means methodologically — that it is a contingency rather than a corrective, available only because one participant happened to be alive and willing to answer a question — is addressed directly in section 4.2 and is not restated here.

The second primary source is a set of photographs taken by the author during a site visit to the Tehran Museum of Contemporary Art on 24 June 2021, used in Chapter 3 as documentation of the building's interior circulation and its concrete finishes as they exist today, prior to any damage the building may or may not have sustained in the 2026 war.

The third is the archive of *Honar o Me'mari*, the professional journal edited by Abdol-Hamid Eshragh and published in a tri-lingual format — Persian, French and English — from offices in Tehran, Paris and London, with contributions during these years from architects including Kamran Diba.[5] The journal is used throughout Chapters 2 and 3 as a primary architectural and documentary source: it is the closest surviving record of how the Pahlavi state's own architectural establishment described its monuments to itself, and its trilingual, tri-city publication structure is itself a piece of evidence about who that establishment understood its audience to be. It should not, however, be read as a neutral record. *Honar o Me'mari* was edited from inside the institutional and patronage networks this thesis examines, and its coverage juxtaposed images of the royal family with professional architectural critique in a manner that treated the two as continuous rather than separate registers; the author's own examination of the journal's volumes across the period indicates that it functioned — among its

5. Mohamad Sedighi, "Megastructure Reloaded: A New Technocratic Approach to Housing Development in Ekbatan, Tehran," *ARENA Journal of Architectural Research* 3, no. 1 (2018): 5; Kamran Diba, "Environmental Architecture Issues," ***Honar o Me'mari*** [Art and Architecture Journal], no. 16 (1972): 18–19, cited in Rana Habibi, *Modern Middle-Class Housing in Tehran: Reproduction of an Archetype: Episodes of Urbanism, 1945–1979* (Leiden and Boston: Brill, 2021), 180.

other, genuine editorial purposes — as one of the channels through which the state's own account of its architecture reached both a domestic professional readership and an international one. The journal is cited throughout as a source, in other words, and read throughout as an interested one; the two are not in tension, but the second should not be forgotten in the presence of the first.

The fourth is the American trade journal *Architectural Record*, consulted directly for the years in which it reported on Iranian projects and quoted in Chapter 2 across four separate articles. It functions in this thesis exactly as *Honar o Me'mari* does — as a primary record of period professional discourse rather than as secondary scholarship — with the difference that its interest ran the other way. Where the Iranian journal presented Iranian architecture to an international readership on the state's own terms, *Architectural Record* presented Iran to an American profession, and the projects it chose to feature, the terms in which it praised them, and the competition announcements it agreed to carry are evidence of what the Western architectural establishment was prepared to certify. Neither journal is disinterested; they are interested in different directions, and reading them against one another is part of the method rather than a complication of it.

The period sources this thesis draws on are not all of one kind, and the difference matters enough to state. The four listed above were consulted directly. Period newspaper coverage from *Ettela'at* and *Khandaniha* [Readings], which carries substantial weight in the Saman Towers analysis in section 3.2 — the developer's own statements about his intended market, the ten-day floor cycle, the 1971 rebuttal to public criticism of the towers' class character — reached this thesis at one remove, through the citations assembled in Yasamin Nemat-ollahi's article in *Dalan Journal*, rather than through consultation of the newspaper archives themselves. This is a limitation of access rather than a choice of method, and it is noted here because a reader assessing the Saman argument should know that its documentary base was verified against a scholarly intermediary rather than against the originals.

Three of the sources on which this thesis depends most heavily were read in Persian and translated by the author. The Diba interview was conducted entirely in Persian and translated for citation here. Amir Bani-Masoud's *Me'mari-ye Mo'aser-e Iran* [Contemporary Architecture in Iran], quoted extensively across all three body chapters as the standard survey of the period, and Ervand Abrahamian's *Iran Bayn-e Do Enqelab* [Iran between Two Revolutions] both exist in English editions; neither was accessible under the research conditions described below, and both were therefore consulted in Persian, with every passage reproduced here rendered into English by the author. Abrahamian's book was written in English in the first place, which means the passages quoted from it in this thesis have travelled from English into Persian and back again, and will not correspond word for word to the Princeton text. Translation is not a neutral operation, particularly where a source's political vocabulary is doing analytical work — where an author writes of tajaddod or nowsazi, the English equivalents available are neither exact nor interchangeable — and responsibility for every choice made in rendering these passages, including choices a different translator would have made differently, rests with the author.

Beyond these, the thesis engages a body of secondary scholarship whose anchoring figures recur

across all four chapters rather than being confined to any one of them: Talinn Grigor's account of Pahlavi architecture as a mirror of its own politics, Pamela Karimi's work on domesticity and consumer culture, Farshid Emami's writing on urban grandiosity and the late Pahlavi cultural establishment, Amir Bani-Masoud's history of Iranian modern architecture, Peyman Akhgar's work, with Golshan Moghassemi, on the arrival of modern construction techniques through the Trans-Iranian Railway, Ali Madanipour's institutional history of Tehran's development, and — for the material's own transnational history — Adrian Forty's *Concrete and Culture* and Kenneth Frampton's *Studies in Tectonic Culture*. None of these authors, with the partial exception of Grigor, Karimi and Emami, writes about Iran as their primary subject, and that concentration of the interpretive vocabulary elsewhere is itself something Chapter 2 registers rather than passes over. A fuller engagement with each of these bodies of work belongs to the chapters that use them, not to this Introduction.

Citations throughout follow the Chicago Manual of Style's notes-bibliography system. Persian-language sources are cited by transliterated title with an English translation in brackets on first appearance.

Archival and Fieldwork Constraints

Two separate conditions shaped what evidence this thesis could gather, at two different times, and they should not be conflated with one another.

The first concerns access to the *Honar o Me'mari* archive itself. That access was gained through Iranian websites, during a narrow window between two periods of internet shutdown connected to the unrest of Dey–Bahman 1404 (December 2025–January 2026). This is not the war discussed in Chapter 4's epilogue; it precedes it, and it is noted here because it shaped the scanned issues this thesis was able to retrieve and the ones it was not.

The second, and the more consequential for the thesis as a whole, is that in-person archival and field research in Tehran's libraries and archives was not possible because of the war between Iran and the United States and Israel of 28 February to 8 April 2026. A planned research trip to consult institutional archives directly, to verify physical and bibliographic details this thesis has instead had to establish at a remove, and to photograph the case-study buildings in their current condition did not take place, for reasons no research design could have anticipated or mitigated. This thesis therefore relies on digitised archives, a remote interview conducted by voice message rather than in person, and photographs taken five years before the thesis itself was conceived, rather than on the direct archival and site access a study of this kind would ordinarily seek. Where that reliance has left a gap in the documentary record — the unresolved status of the Saman Towers after the war is the clearest instance — this thesis states the gap plainly, in the relevant chapter, rather than filling it with inference the sources do not support.

Two further searches produced nothing and are recorded here for the sake of the ones that follow. The complete run of *Architectural Forum* from 1960 to 1980 was searched for coverage of Iranian projects, on the reasonable expectation that a journal of its standing would have reported on the Tehran building programme as *Architectural Record* did; it had not, and *Architectural Forum* is therefore cited nowhere in this thesis.

The complete run of *Me'mar* [Architect], the earlier Persian-language architectural journal that predates *Honar o Me'mari*, was searched under the same access conditions described above, in the expectation that it would carry the professional debate of the 1940s and 1950s into which the concrete question was first introduced; it yielded nothing usable for the period and the buildings this thesis examines, and it too is cited nowhere here. Negative results are worth stating. A future researcher should know that these two runs have been looked through, and should spend the time elsewhere.

A third consequence of working at a distance is harder to itemise than a cancelled trip, and it shapes the citations in this thesis more than any single missing document. Several of the sources on which the argument depends most heavily were consulted in digitised form only, and digitisation is not neutral with respect to what a scholar can verify. Bani-Masoud's survey, quoted in all three body chapters, was read from a scanned copy; the page references given here correspond to that scan and have not been checked against a print edition held in a library. Talinn Grigor's *Building Iran* was available only as a scanned image file without extractable text, which permits reading but not searching, and means that a phrase recalled from one chapter cannot be located in another without turning pages by hand.

The *Honar o Me'mari* issues retrieved during the access window described above vary in scan quality, and in several the page numbers are illegible at the gutter.

None of this invalidates a citation. It does mean that a category of small verification — confirming a publisher's imprint from a title page, checking whether a journal's running head matches its masthead, establishing whether an unsigned article carried an author's initials at its end — was unavailable throughout, and that where such details could not be confirmed this thesis has said so in the note rather than supplying the likeliest answer. A research trip resolves questions of this kind in an afternoon, at a reading-room desk, without anyone thinking them worth recording. That they had to be recorded here is itself a description of the conditions under which the work was done.

A Note on the Use of Artificial Intelligence

In accordance with Politecnico di Torino policy, this thesis discloses that artificial-intelligence assistance was used exclusively for polishing academic English prose — grammar, register and clarity — over the course of drafting. All research, source identification, translation from Persian, selection of quotations, and argumentation are the author's own.

Toward Chapter 1

What follows begins where any account of Pahlavi Iran's built environment has to begin: not with a building, but with the money and the doctrine that made building possible at the scale this thesis examines. Chapter 1 traces how oil revenue was converted into a developmental programme, how that programme reorganised Tehran along lines of visible inequality, and why a state governing under those conditions had particular reasons to prefer concrete over almost any other available instrument of self-representation. The money in question arrived as rent rather than as revenue in the ordinary sense — payments to the state for a resource in the ground, requiring no tax bargain

with a population and answerable to no domestic constituency — and a state financed that way owes its account of itself to nobody in particular, which is precisely what makes the account it chooses to give worth examining. The doctrine arrived with the White Revolution, and the land reform at its centre pushed a rural population into a capital that had made no provision for it, producing over two decades a city in which street width, building height and access to services all narrowed from north to south along a single axis. Neither of these is an architectural fact.
Both are the conditions under which every architectural fact in this thesis was produced, and an argument about who gets to assign meaning to a material cannot begin until it has established who was in a position to assign anything at all. The four buildings that test the resulting claim do not appear until Chapter 3. What has to be established first is why the state needed something to test in the first place.

01

Historical, Geopolitical, and Social Context of Pahlavi II Iran (1941-1979)



Figure 1.1. Associated Press, *Shah Mohammad Reza Pahlavi and Empress Farah departing Iran for the last time, Mehrabad Airport, Tehran*, January 16, 1979. Photograph. AP Photo Archive.

1.1 The Pahlavi II Era: A Contradictory Modernization

Between 1941 and 1979 the Iranian state set out to convert oil revenue into a modern nation, and to do it quickly. The project was state-led and directed from above by Mohammad Reza Shah (26 October 1919 – 27 July 1980), who drew on vast oil income and on Western support to centralize power and expand infrastructure, with the aim of transforming Iran into a global power. That formulation holds for most of the period but not for its first twelve years: between the Allied occupation of 1941 and the coup of August 1953 the young Shah occupied a largely constitutional position with no real executive authority, while power rested with parliament, successive prime ministers, and a European-trained technocratic bureaucracy, and it was only after 1953 that authority consolidated around the monarchy itself.[1] The era is pivotal in Iran's history, and complex.

Claudia Castiglioni, a historian of contemporary Iran and the Cold War, describes a state working both sides of the Cold War: Pahlavi Iran was "attempting to take advantage of the competition between the United States and the USSR, in search of its own path to development but, at the same time, trying

1. Habibi, *Modern Middle-Class Housing in Tehran*, 12; Azadeh Mashayekhi, "The 1968 Tehran Master Plan and the Politics of Planning Development in Iran (1945–1979)," *Planning Perspectives* 34, no. 5 (2019): 4–5.

to embody the modernisation requested by Washington as a condition for economic and military support."[2] Sovereign development and compliance with a patron's terms are held together in a single sentence. That geopolitical positioning shaped the direction of Iranian modernization and its pace alike. The defining feature of the era, however, was its top-down character. Houchang Esfandiar Chehabi, an Iranian-American historian, states the consequence plainly: "Modernization imposed from above affected societies selectively, producing what have been called 'post-traditional' societies."[3]

Selectively is the operative word. Architecture and urban planning did not merely reflect these changes; they were key tools through which the state sought to give physical form to its power and its ideological vision.

Ervand Abrahamian, an Iranian-American historian and Professor Emeritus at the City University of New York, locates the regime's vulnerability in exactly that selectivity: "In the year 1977, the gap between the developed socio-economic system and the underdeveloped political system was so wide that only an economic crisis was needed to completely collapse the entire regime. Therefore, the revolution occurred not because of overdevelopment or underdevelopment, but because of uneven development."[4] The diagnosis is structural rather than conjunctural, and that is its strength.

It is also the source of its limit: the leftist analytical framework within which Abrahamian works gives priority to socio-economic causes, and leaves comparatively little room for the ideological and religious mobilization that gave the revolution of 1979 its particular form.

James A. Bill, an American political scientist known for his expertise on Middle Eastern politics, frames the same tension comparatively: "Despite this, at a more general level Iran is representative of many Third World societies: an authoritarian political system in a society with pronounced class divisions confronted by the unsettling challenge of modernization."[5] The dichotomy Bill names — a modernized, outward-facing infrastructure resting on a rigid, authoritarian political foundation — is critical for understanding the architectural and urban transformations of the period. Those transformations were not simply responses to functional necessity or economic development. They were visible instruments, through which the state projected political authority, technological progress, and a vision of national modernization. Large-scale infrastructure; monumental public buildings, universities and museums; highways and new urban districts — each materialized the developmental agenda, and each exposed the contradictions that accompanied it.

Both Abrahamian and Bill describe that gap as a condition: something the state suffered from, and eventually fell to. It was also something the state actively sought to manage through the production of a visible, material record of development.

2. Claudia Castiglioni, "Economic Development and Political Authoritarianism: The Pahlavi Iran Path to Modernisation in the Framework of the Cold War," *Rivista degli studi orientali* 84, nos. 1–4 (2011): 183.
3. Houchang Esfandiar Chehabi, *Iranian Politics and Religious Modernism* (London: I.B. Tauris, 1990), 9.
4. Ervand Abrahamian, *Iran Bayn-e Do Enqelab* [Iran between Two Revolutions], trans. Ahmad Golmohammadi and Mohammad Ebrahim Fattahi (Tehran: Nashr-e Ney, 2013), 524–25. Translated from the original Persian by the undersigned.
5. James A. Bill, *The Eagle and the Lion: The Tragedy of American-Iranian Relations* (New Haven: Yale University Press, 1988), 477.

A regime restored to power in 1953 by a coup organized by the American CIA and British MI6, rather than returned to it by any domestic mandate, could not readily draw authority from election, consent, or unbroken constitutional practice — and the dissatisfaction that followed the coup was registered at the time by the very technocrats charged with planning the country's development.[6] What such a state could do was build. Legitimacy that cannot be voted can still be poured, cured, photographed and inaugurated; a reinforced-concrete tower, stadium or museum is a demonstration of capacity that requires no ratification, admits no dissent, and accumulates one project at a time. This is not the single explanation for Pahlavi monumental construction, which had obvious demographic, functional and economic drivers, and its weight relative to those drivers is difficult to measure. But it accounts for something they do not — the insistence on visibility, on scale, and on the ceremonial moment of completion. The evidence for that reading is not in this chapter. It is in Chapter 3, where four buildings are tested against it. Traditional construction in Iran had evolved gradually, through local practices. The monumental projects of the Pahlavi period communicated something else entirely — speed, permanence, national ambition — and communicated it through scale and material presence, most often the presence of reinforced concrete. The shift is therefore not merely aesthetic. It belongs to a broader political project in which the built environment became one of the principal means through which the monarchy articulated its vision of a modern Iran. What sustained that project — oil revenues, international technology transfer, and reinforced concrete, which together supplied its material and institutional foundations — is the subject of the sections that follow.

1.2 Geopolitical Alignment and Economic Alliances

Modernization constitutes one of the central concepts of this thesis. Rather than referring simply to economic growth or industrialization, the term is used here to describe the state-led transformation of Iran's economy, infrastructure, institutions, and built environment during the Second Pahlavi period. This process extended beyond material development to encompass new systems of planning, engineering, and architectural production, many of which were introduced through international cooperation and technological exchange. Consequently, modernization is understood not merely as a domestic reform programme but also as a process shaped by Iran's relationships with foreign powers. Iranian modernization in this period is closely associated with its strategic and economic ties with Western countries, particularly the United States, Great Britain, and key European nations of West Germany, France, and Italy. In the post-coup era of 1953, the Iranian modernization process came in line with American interests to a significant extent. The American influence became overwhelming, as the country provided considerable capital, technological knowhow, and infrastructure inputs. The American impact further reshaped the Iranian cityscape, especially in the sectors of oil extraction, the construction of dams, and the implementation of new technology like precast concrete.

Although these developments reflected Iran's domestic ambitions for rapid modernization, they were also facilitated by international networks of finance, expertise, and technological exchange.

6. Mashayekhi, "The 1968 Tehran Master Plan," 4–5.

Even as the strategic role of the United Kingdom was overshadowed by the American role, the UK remained strong in the Iranian economy, especially in the sectors of oil and industry. Simultaneously, the need for know-how in architecture, urban planning, and education was also met by Western Europe. Turkish political scientist Kerem Türk, a researcher specializing in Iranian strategic alignments and security studies, observes: "Accordingly, the Balance of Threat Theory[7] provides a more comprehensive understanding of Iran's foreign policy under the Pahlavi monarchy. It accounts for the multidimensional nature of perceived threats—spanning ideological, religious, and strategic domains—and highlights how these perceptions influenced alliance behavior both in Iran and among its regional counterparts. The theory facilitates an analysis of Iran's relations with both neighboring states and global powers through the lens of perceived threat, rather than through a simplistic focus on power asymmetries. For example, Iran's alignment with the United States and other Western powers was largely motivated by the perceived threat of Soviet expansionism and the ideological spread of communism across the region."[8]

Türk's interpretation suggests that Iran's Western orientation should not be understood solely as an economic strategy for development. Rather, it emerged within the broader geopolitical context of the Cold War, in which security concerns influenced political alliances as well as opportunities for technological cooperation and knowledge transfer.

From this perspective, Iran's political and economic alliances during the Second Pahlavi period should be understood not merely as pragmatic partnerships for development, but as strategic choices shaped by security concerns and threat perception. The Shah's close relationship with the United States, and particularly with American administrations that viewed Iran as a reliable regional ally, reinforced Iran's integration into the Western economic and technological system. This alignment enabled the large-scale importation of industrial methods, construction technologies, and planning models, which were subsequently embedded in Iran's modernization projects. As a result, architectural and infrastructural transformation functioned not only as a symbol of progress, but also as a material expression of Iran's geopolitical positioning within the Cold War order. Precast concrete belongs to this category precisely: it entered the country not as a technique alone but as a licensed technology, manufactured on Iranian soil under a foreign agreement, and section 3.2 follows one such arrangement into a specific building. This political context also helps explain the growing presence of foreign expertise in Iran's architectural, engineering, and construction sectors during these decades. This dependency on foreign expertise was not limited to large-scale infrastructure; it permeated even the most culturally significant architectural projects of the era. As architect Kamran Diba, designer of the Tehran Museum of Contemporary Art, recalls: "In my office, especially in the museum project, I had a small number of American colleagues who helped us in project management, we had a shortage of personnel."[9]

7. Balance of Threat Theory argues that states respond not just to the power of other states, but to the perceived threat they pose. Threat is determined by four factors: overall power, geographic proximity, offensive capabilities, and offensive intentions.
8. Kerem Turk, "Strategic Alignments Under Fire: Iran's Pahlavi-Era Alliances and the Balance of Threat Framework," *The Journal of Iranian Studies* 9, no. 2 (2025): 459.
9. Kamran Diba, interview by the undersigned, WhatsApp, June 4, 2026. Translated from the original Persian by the undersigned.

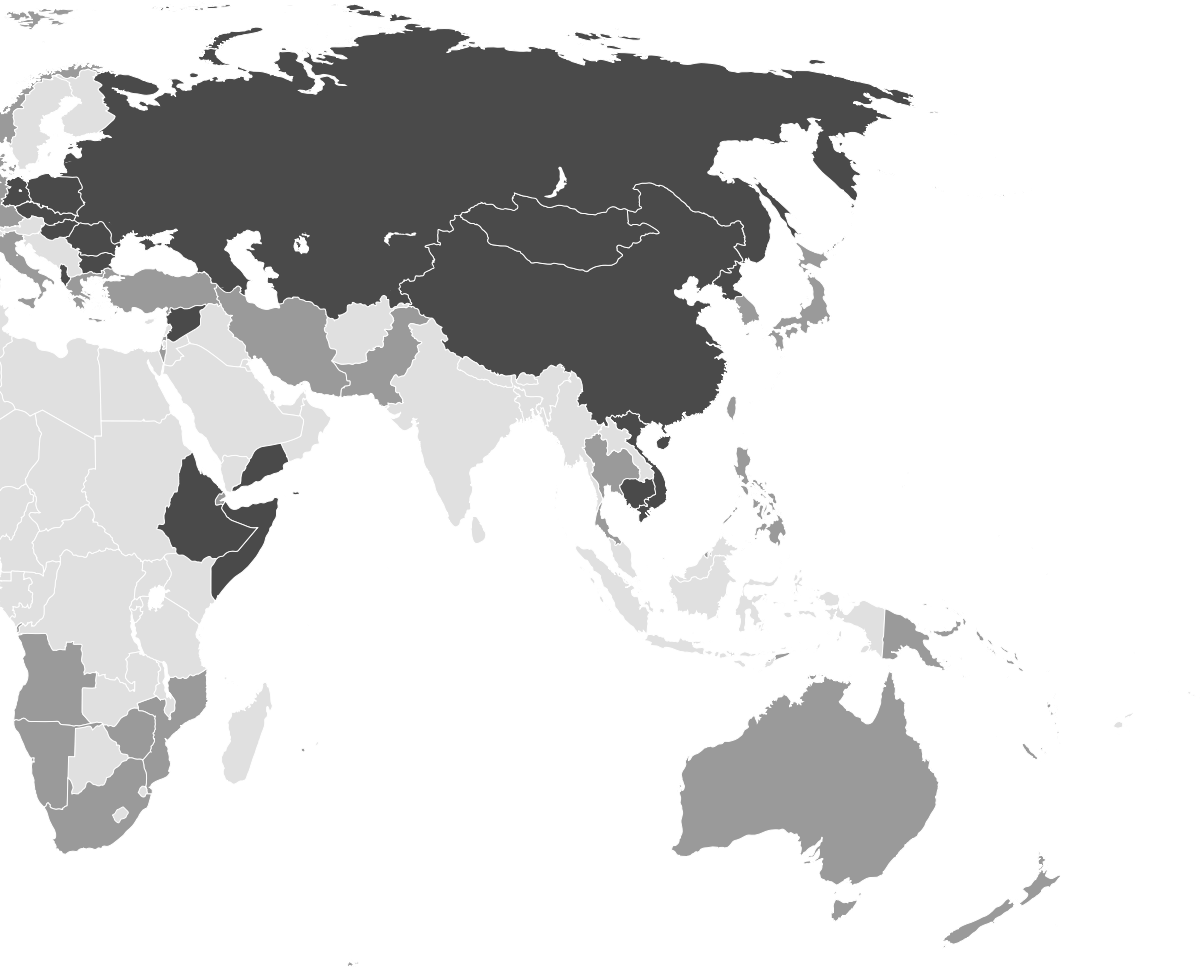


Figure 1.2. Vorziblix, *Cold War Alliances, mid-1975, 2013*. SVG map. Wikimedia Commons, CC0. Recolored by the undersigned. The source groups the Soviet and Chinese blocs into a single category, although the two were not allied by 1975. Its third category is defined negatively — states aligned with none of the three powers — and does not correspond to membership in the Non-Aligned Movement.

Diba's recollection indicates that international collaboration extended beyond technical assistance to include project management and everyday professional practice within architectural offices. Diba further notes that the dependence on foreign expertise was systemic across the profession: "Farmanfarmaian himself said that we didn't know how to draw execution plans. Foreigners did all the work. Later, the Plan and Budget Organization decided that Iranians should be trained and foreigners should be reduced."[10]

From inside an architecture office, that dependency reads as a purely technical condition: too few draughtsmen, a deadline, colleagues hired to close the gap. Outside the office it was a matter of open political dispute. Truman's Point IV program, the principal institutional vehicle through which American technical assistance reached Iran, drew hostility from nearly every direction of the Iranian political spectrum in the years before the coup. Pamela Karimi, as an architect and scholar specializing in the intersection of modern architecture, visual culture, and urban spaces in the Middle East, records incidents from 1952 alone that range from a taxi driver in Shiraz who verbally abused a Point IV employee and a factory worker in Isfahan who distributed anti-Point IV banners, to a public rally held in Tehran by the Iran Party at which speakers described the program as a means of colonizing the Iranian economy; the Society for Fighting Colonialism circulated material naming it the Point IV Spy Organization, the Tudeh press criticized American intervention consistently, Point IV personnel were assaulted by Tudeh members and by the Fada'iyan-i Islam, and the pro-Nazi SUMKA party published anti-Point IV cartoons in its own short-lived paper.[11]

10. Diba, interview by the undersigned, June 4, 2026.
11. Pamela Karimi, *Domesticity and Consumer Culture in Iran: Interior Revolutions of the Modern Era* (New York: Routledge, 2013), 117.



The scale should not be overstated: these are scattered incidents and organized criticism rather than a mass movement, and Karimi is equally clear that Point IV workers were valued by many ordinary Iranians and that the changes they introduced remained, in daily practice, fairly marginal.[12]

One episode belongs to this thesis more directly than the others, because it is about a building. Ardeshir Zahedi, whom Karimi identifies as then minister of foreign affairs, refused a Point IV request to install a sign at the entrance gate of the Kan residential apartment district acknowledging American involvement in its construction.[13] A sign at a gate is a small thing. Refusing it concedes something considerable: that visible foreign authorship of an Iranian housing district carried a political cost the government preferred not to pay.

The competition was symbolic on the Soviet side as well. In February 1948 the Soviet newspaper Krasnaya Zvezda ran an article arguing that impoverished Iranian conditions — shanty dwelling among them — were themselves a product of American technical assistance, and that the Americans were arming Iran's military rather than attending to the lives of its people.[14] Foreign technical presence in Iran was therefore never a neutral input. It was contested terrain, and what it built was read as evidence by both blocs.

This is the ground on which the trajectory Diba describes — from foreign dependency to gradual localization — should be read. It mirrors the broader geopolitical dynamic of the Pahlavi era: Western alignment as a vehicle for accelerated modernization, with Iranian professionals ultimately absorbing and internalizing imported models of practice.

12. Karimi, *Domesticity and Consumer Culture in Iran*, 117.
13. Ibid., 117.
14. Ibid., 117.



Figure 1.3. Nixon Foundation, *Mohammad Reza Pahlavi, the Shah of Iran with U.S. President Richard Nixon Shaking Hands, Tehran*, May 30, 1972. Photograph. Nixon Foundation Photo Archive.

But the mirroring is not merely formal. The decision Diba reports as administrative — that the Plan and Budget Organization would train Iranians and reduce foreigners — was taken in a country where foreign technical presence had already been publicly denounced as espionage and as economic colonization, and where the state had itself declined to advertise American authorship on a housing complex. Localization was a technical objective. It plausibly answered a political pressure as well, though no source consulted for this study establishes that the Plan Organization acted with that pressure in view, and the claim should be weighed accordingly.

1.3 The Political Economy of Oil and Technology Transfer

The reconstruction of the international oil consortium after 1953, led by the United States of America and the United Kingdom, was the catalyzing factor for the reintegration of Iran into the global capitalist system, and it established oil revenues as the major financial channel for Iran's modernization.

Amir Bani-Masoud— an Iranian-born architect and architectural historian, formerly a faculty member at the Islamic Azad University of Tabriz (1997–2018) and now based in Canada — describes what that channel did to the state: "The increasing oil revenues, which flowed directly into the government treasury, provided the Shah with significant financial and foreign currency resources outside the domestic economic system. These revenues, which reached the government directly, were distributed, enabling the government to finance infrastructure projects, expand its military-bureaucratic network, and increase its followers among technocrats and intellectuals."[15] Revenue that arrives from outside the domestic economy answers to nothing inside it. This centralization of fiscal power fundamentally restructured the state-society relationship, transforming the monarchy into a rentier entity that prioritized capital-intensive development to consolidate its political hegemony. James A. Bill records the Shah pressing for more of it: "In the mid-1960s, the shah also chose to confront the oil consortium about production levels allotted to Iran.

15. Amir Bani-Masoud, *Me'mari-ye Mo'aser-e Iran: Az 1304 ta Emruz* [Contemporary Architecture in Iran: From 1925 to the Present] (Tehran: Honar-e Memari-e Gharn, 2013), 265. Translated from the original Persian by the undersigned.

He argued that increased production was essential in order that Iran receive the revenues necessary for his modernization program."[16] Nikki R. Keddie, American historian of the Middle East, traces where the money went: "The influx of foreign exchange after 1954, chiefly from oil revenue but also from loans and aid, helped finance plan organization (PO) development projects, which progressed, however skewed they often were."[17]

This unparalleled windfall of petroleum funds not only reshaped the macroeconomic paradigm of Iran but also recalibrated the very bases of its society. Kamran Diba, practising in Tehran across the boom years, recalls the effect from inside it: "society had a very strange and rapid growth due to oil income. And income levels rose strangely; naturally, a middle class was created, and economic development was very striking."[18] The recollection is that of an interested witness, and it is offered here for what it reliably establishes rather than for its judgement: that the growth was rapid enough to be felt as strange by a professional living through it. The scale of the injection points to the state's deliberate attempt to commodify modernization, and where the figures measuring it appeared is equally telling. An American architectural trade journal reported in 1975: "Iran, with an estimated oil revenue of $102.2 billion by the end of its Fifth Development Plan (ending March 20, 1978) is expected to have a balance of payments surplus of over $17.5 billion, and with an average GNP growth rate of 26 per cent, this developing nation is more than ever a potential consumer of goods and services from more highly developed countries."[19]

Read as economic data, the passage measures the scale of Iranian purchasing power. Read as address, it is a market briefing: the closing clause, which places Iran among the customers of more highly developed countries, was written for firms deciding whether to bid. Iranian ambition and American professional appetite are legible in the same set of numbers — but the passage is direct evidence only of the second.

Yet this apparent prosperity masked a structural paradox: the same oil revenues that created a salaried middle class also concentrated wealth within a narrow technocratic elite, producing a built environment that celebrated modernity for the few while displacing the many. Revenue alone was not enough. The transformation of society required the parallel acquisition of technical capacity and institutional expertise, and the Shah's strategy therefore extended beyond revenue accumulation toward the systematic importation of Western knowledge, skills, and administrative models. A 1956 report by the United States Government Printing Office on aid operations in Iran registers the scale of that importation: "Between 1952 and 1956 unprecedented numbers of American technical advisers moved into Iran. According to published Foreign Service lists, in January 1952 fewer than 10 technical advisers were attached to the U.S. Embassy. By October 1952, the number had increased to 26, but it was after the fall of Musaddiq that the major increases occurred. In October 1953, the number of ICA advisers listed by name reached 133, and by January of 1956 the number had ballooned to 207.

16. Bill, *The Eagle and the Lion*, 170.
17. Nikki R. Keddie, *Modern Iran: Roots and Results of Revolution* (New Haven: Yale University Press, 2003), 138.
18. Diba, interview by the undersigned, June 4, 2026.
19. "Oil-Rich Middle East: The Next Big Client?" *Architectural Record*, February 1975, 42.

The actual number of the ICA staff at the beginning of 1956 was 308 technicians and support personnel, including almost 100 local nationals. Another 100 technicians were employed under contracts with American educational and professional organizations. Above and beyond this were another 3,800 Iranian employees working for American missions and programs."[20] The curve is steepest immediately after 1953. Rather than merely compensating for a shortage of technical personnel, this influx embedded American professional standards within Iran's planning institutions, influencing not only how buildings were constructed but also how architecture itself was conceived as a technocratic enterprise.

The institutional reliance intensified by the mid-1970s, and by then the transnational character of the Iranian built environment was visible from the American side of the exchange: "According to the May 16, 1974 issue of Engineering News-Record, of the top 500 (in billings) design firms in the U.S., 51 had jobs in Iran, Iraq, Kuwait, Lebanon, Saudi Arabia and the United Arab Emirates."[21] Iran had become not only a consumer of foreign technology but an important market within global architectural practice. Modernization operated through international professional networks rather than through domestic expertise alone.

U.S. Technical Aid to Iran, 1951–1956 (Millions of Dollars)

Fiscal Year	*Aid*
1951	1.3
1952	23.6
1953	23.2
1954	84.8
1955	75.5
1956	73.0

Table 1.1. U.S. Technical Aid to Iran, 1951-1956, Source: U.S. Congress, House, Committee on Government Operations, *United States Aid Operations in Iran*, 998–99.

What crossed with the personnel was not only engineering knowledge. Entire systems of professional practice moved with them — construction standards, material specifications, project management models — and they would shape Iran's architectural output for decades. Firsthand accounts from practitioners corroborate the institutional shift, among them Kamran Diba, who recalls that even the largest Iranian architectural offices of the period were initially dependent on foreign expertise for basic execution drawings. Capital and imported expertise found their most tangible expression in the transformation of the built environment. Oil revenues rose from thirty-four million dollars in 1954–55 to five billion by 1973–74, and to twenty billion by 1975–76 — a trajectory that turns sharply after the 1973 oil shock, and that enabled the state to reconceptualize the Iranian landscape as a neutral and malleable ground for modernization.[22]

20. U.S. Congress, House, Committee on Government Operations, *United States Aid Operations in Iran: Hearings before a Subcommittee of the Committee on Government Operations, House of Representatives, 84th Cong., 2d sess., May 2–July 16, 1956* (Washington, DC: Government Printing Office, 1956), 998–99.
21. *Engineering News-Record*, May 16, 1974, quoted in "Oil-Rich Middle East," 42.
22. Habibi, *Modern Middle-Class Housing in Tehran*, 136n1, citing Ervand Abrahamian, *A History of Modern Iran* (Cambridge: Cambridge University Press, 2008), 124.

Year	Oil revenues ($ million)	Oil revenues as % of foreign exchange receipts
1954–55	34.4	15
1956–57	181	43
1958–59	344	60
1960–61	359	60
1962–63	437.2	70
1964–65	555.4	76
1966–67	968.5	65
1968–69	958.5	53
1970–71	1,200	54
1972–73	2,500	58
1973–74	5,000	66
1974–75	18,000	72
1975–76	20,000	72

Table 1.2. Iran's Oil Revenues and Share of Foreign Exchange Receipts (1954–1976). Source: Fereidun Fesharaki, *Development of the Iranian Oil Industry* (New York: Praeger, 1976), 132.

Large-scale infrastructure projects — dams, highways, power plants, sports complexes — were undertaken as visible symbols of progress, and architecture became a critical medium through which state power and technological ambition were materialized. Dams held a particular position among them, since they addressed water management, hydroelectric production, agricultural development and the symbolic demonstration of technological capability simultaneously. No project illustrates this more concretely than the Amir Kabir Dam. Constructed between 1957 and 1961, the Amir Kabir (Karaj) Dam stands as one of the most prominent manifestations of Iran's oil-based modernization, demonstrating the rigid material logic of reinforced concrete on a national scale. By prioritizing reinforced concrete, the state effectively imposed a standardized industrial vocabulary that superseded traditional, localized construction techniques. The break with what had preceded it was not a by-product of the engineering; it was intended.

The dimensions are recorded in the Encyclopaedia Iranica: "One of the largest dams in the Middle East at that time, it measures 180 m in height and 390 m in length, with a reservoir lake 14 km long that has a capacity of 205 million m3."[23] The contract for the dam was finalized between 1954 and 1956, aligning precisely with the sudden surge in U.S. Technical Aid (ICA) reflected in Table 1.1; full source attribution for these figures is provided in the accompanying footnote. The coincidence of dates is the point. What was being exchanged was not petroleum capital for physical assets but petroleum capital for the systematic importation of Western technical services, engineering standards, and specialized education. Infrastructure thus became a vehicle for transferring knowledge regimes as much as for controlling water and generating power. This three-tiered transaction — leveraging oil revenues to acquire Western technology, expertise, and institutional practices — cultivated a new Iranian technocratic elite that operated as intermediaries between global technological systems and national development objectives, translating imported models into locally administered forms of governance and production.

The dam shows the arrangement in miniature. Executed by the American firm Morrison-Knudsen under the supervision of professionals such as Khalil Taleghani, a prominent engineer and former Minister of Agriculture, the 180-meter-high structure exemplified the hybridization of foreign expertise and state capital. To accelerate these developments, the state actively configured its administrative apparatus to court international participation, and an American trade journal set out the mechanism for its readers: "The government has not published a detailed list of its building program requirements, but has announced that it

23. Bernard Hourcade, "Karaj River," *Encyclopaedia Iranica* 15, no. 5 (2010): 543–44.



Figure 1.4. Unidentified photographer, *Foreign Press Correspondents and Embassy Attachés Visiting the Construction Site of the Amir Kabir Dam, Tehran*, c. 1960. Photograph. Mashruteh Digital Archive.

welcomes offers from foreign countries to speed its construction target dates. Will the government accept proposals from anyone? Yes, if the firm is qualified and financially sound. Most reputable foreign construction firms register with the Plan Organisation which grades them and includes them on an international list for bids."[24]

Beyond its immediate functional role, the dam contributed to the reconfiguration of Iran's industrial and administrative landscape, reinforcing concrete as both a material and symbolic medium through which modernization was articulated, legitimized, and spatially inscribed across the nation. Concrete emerged as the foremost material in this architectural transformation. Architecture was no longer rooted in the gradual evolution of Iranian vernacular traditions — mud brick, stone, localized construction techniques — and became instead an industrialized process in which oil revenues were effectively translated into form.

Reinforced concrete, precast systems, and steel frames enabled speed, scale, and monumentality, aligning Iranian architecture with Brutalist and Internationalist paradigms prevalent in the West.

24. "Oil-Rich Middle East," 42.

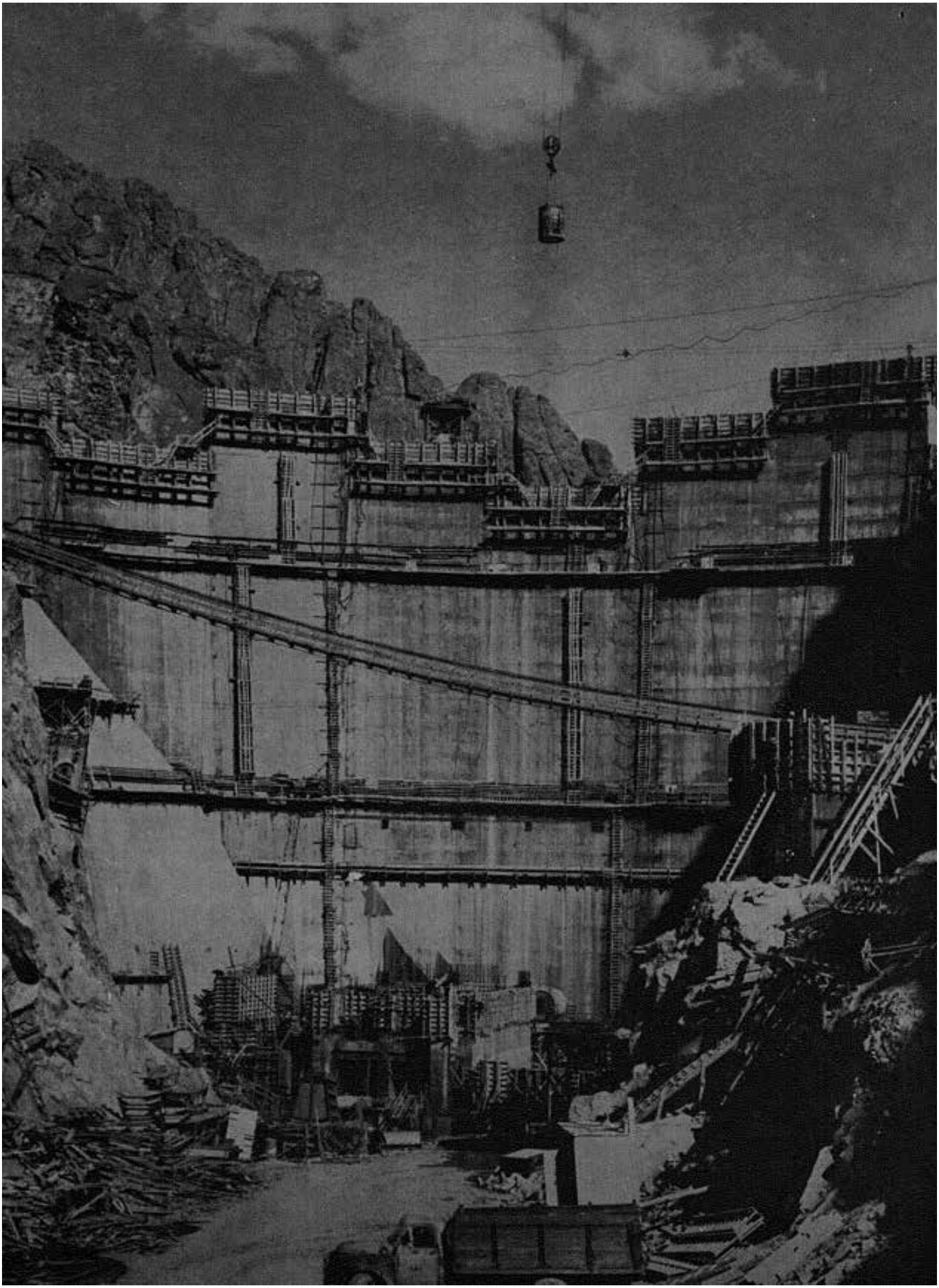


Figure 1.5. V. Simonian, *Amir Kabir Dam, Iran*, 1960. Photograph. *Iran Today: A Quarterly Review* 1, no. 5 (Spring 1960). Sourced from Wikimedia Commons.

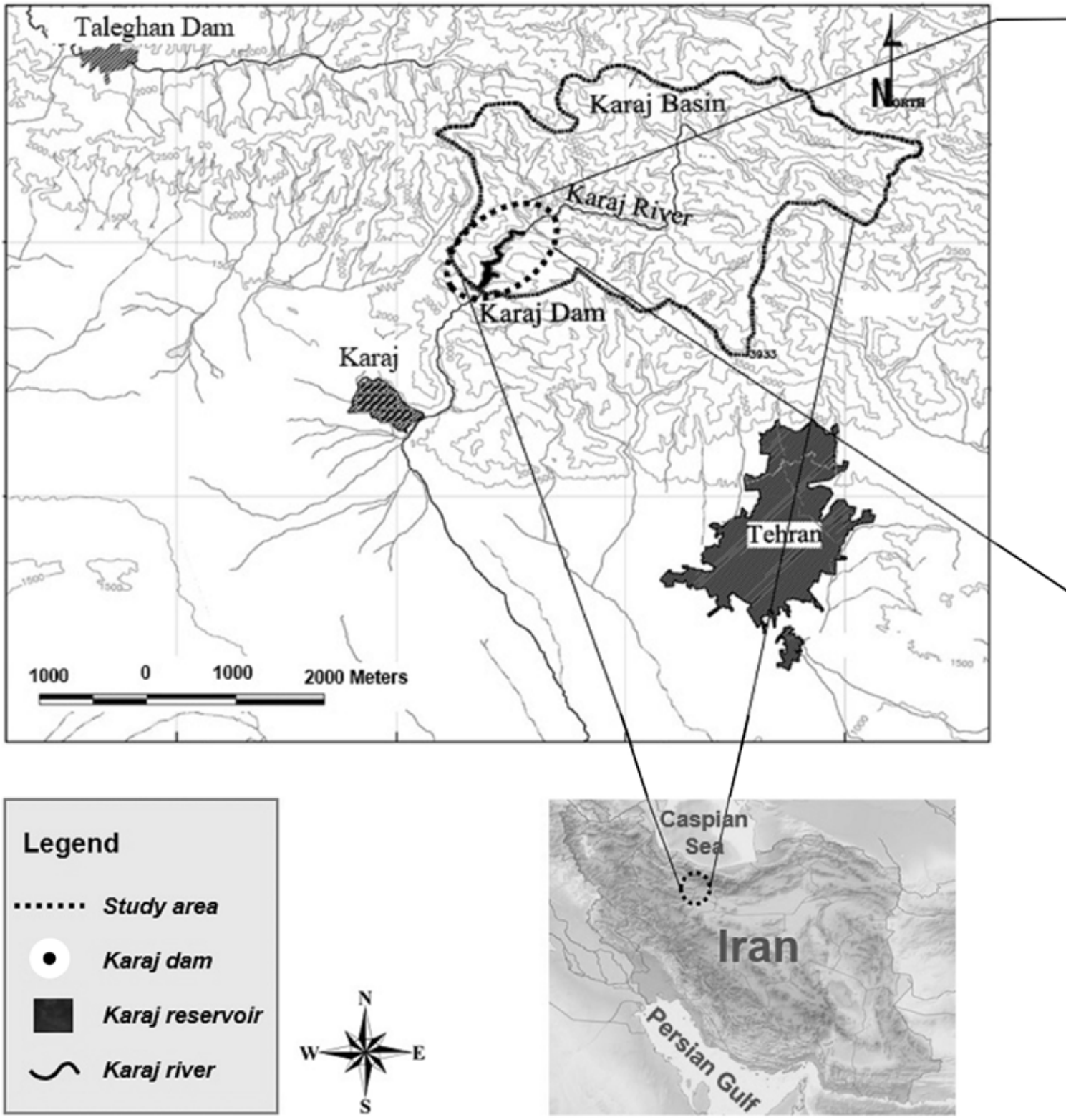
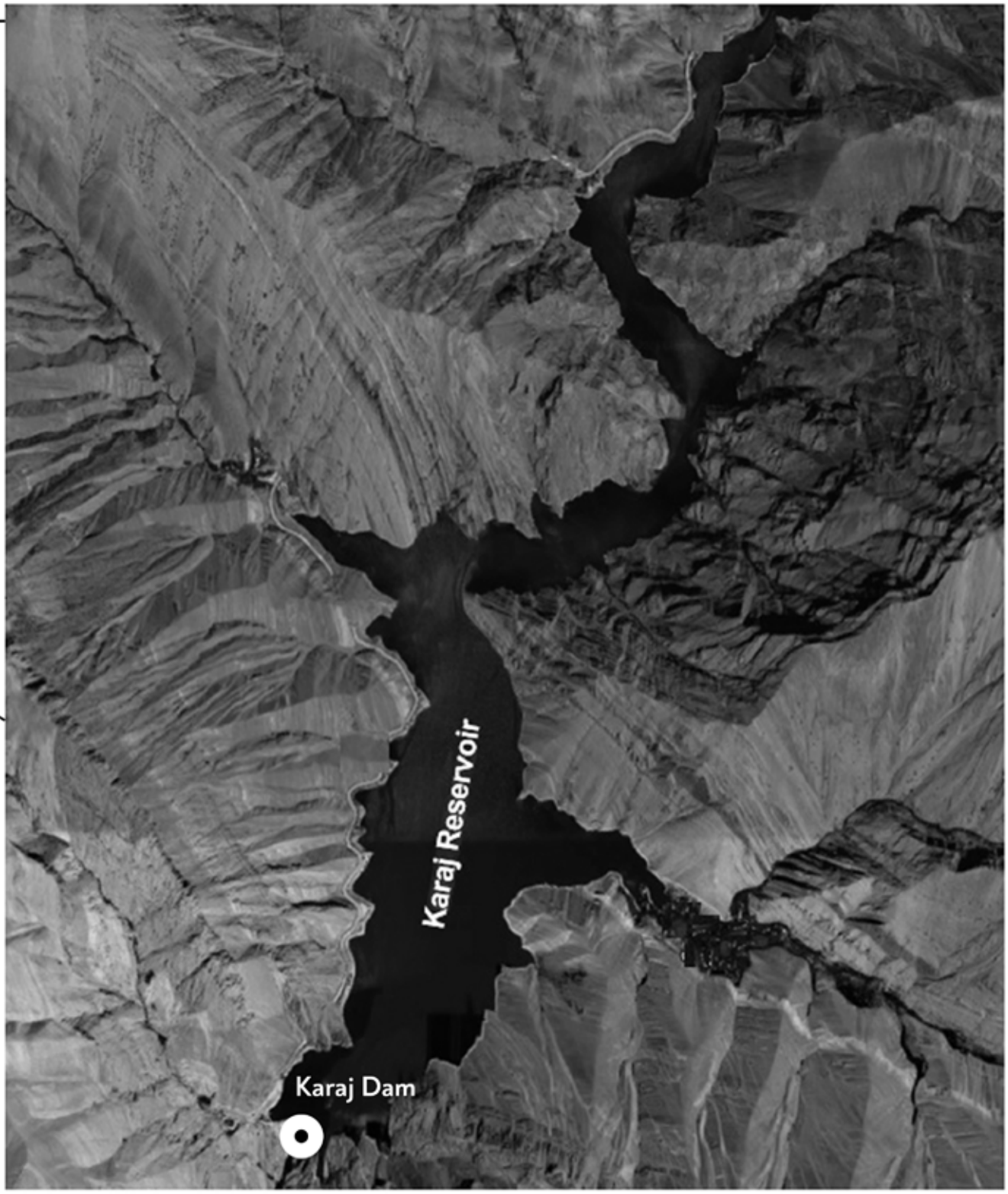


Figure 1.6. Mohammad Mahdi Malekpour and Mahmoud Mohammad Rezapour Tabari, "Implementation of Supervised Intelligence Committee Machine Method for Monthly Water Level Prediction," *Arabian Journal of Geosciences* 13, no. 20 (2020), fig. 1: "The Location of the Karaj Amirkabir Dam."

Read as an engineering choice, this is a question of performance and availability. Understood as policy, reinforced concrete should be understood less as a neutral engineering solution than as the material form taken by oil revenue itself — capital converted, as at Amir Kabir, into 180 metres of standing structure. The material itself became inseparable from the image of modernization that the Pahlavi regime wished to project both domestically and internationally.

These structures projected an image of governmental solidity, permanence, and technological mastery, while simultaneously distancing the built environment from its historical and regional precedents. This architectural shift was not merely aesthetic. It was deeply ideological: the extensive use of concrete symbolized a deliberate rupture with the past and embodied the Shah's vision of Iran as a modern, industrial, and globally competitive nation.



It was also fundamentally top-down, imposed through economic power rather than organic social consensus. The hard, industrial forms of modern architecture were introduced into a society still negotiating the tension between traditional modes of life and the demands of rapid, state-driven modernization. Oil-based modernization in Iran functioned as that same strategic three-tiered transaction, and it redefined the nation's landscape: the government's systematic efforts to regulate foreign participation through the Plan Organisation and the massive influx of capital during the Fifth Development Plan are the evidence for it.

What the transaction produced was more than a set of buildings. This material and professional transformation set the stage for the architectural experiments examined in the following chapter, a transformation in

which concrete became the standard means by which oil revenue was converted into infrastructure and built form. Oil, technology, and reinforced concrete should therefore not be understood as separate components of modernization but as mutually reinforcing elements of a single developmental strategy through which the Pahlavi state reshaped both the physical landscape and the institutional culture of Iranian architecture.

1.4 Top-down Modernization and the White Revolution

The White Revolution, formally launched through a national referendum in January 1963 by Mohammad Reza Shah, consisted of a series of reforms aimed at modernizing Iran through a top-down process.[25] It represented a calculated attempt by the monarchy to preempt a communist or "red" revolution by addressing rural poverty and social stagnation, while simultaneously consolidating royal power and cultivating a new, loyal middle class. The term "white" symbolized a bloodless transformation, in contrast to the violent upheavals the reforms sought to avert.

British biographer Margaret Irene Laing, who interviewed the Shah and his court in 1977, provides a sympathetic observation characteristic of this era's idealistic discourse: "The Shah's only fault is that he is really too good for his people—his ideas are too great for us to realize them."[26] Read as an assessment of the Shah, the remark tells us nothing. Read as a symptom, it is exact: it belongs to a climate in which modernization was an ambitious, top-down mission rather than a gradual social evolution. As established in section 1.3, the extensive use of reinforced concrete in infrastructure and public buildings during this period was more than a technical choice — it functioned as a symbolic medium, a 'materialization of power', that embodied centralized authority, political stability, and the state's determination to impose a rapid transition toward modernity. What the White Revolution adds is the calculation behind the imposition. The reforms were a pre-emption: a revolution declared from the throne in order to forestall one from below, addressed in the first instance to the countryside. That address is the thread worth following, because it leads where the material argument alone does not — to the people the reforms displaced, and to what became of them once they reached the cities.

The programme's methods were on public display before it had legal form. In 1961, in Kermanshah, Mohammad Reza Shah, Prime Minister Ali Amini, and Minister of Agriculture Hassan Arsanjani distributed land ownership documents — several months before the Land Reform Law of January 1962 and more than a year before the referendum that ratified the six-point programme — visually asserting state authority and modernization in rural Iran.[27]

The distribution of land titles was a performance, and it exemplified the regime's strategy of using public spectacle to legitimize top-down reform — a logic that would later manifest architecturally in monumental concrete projects designed to project state

25. Ali M. Ansari, "The Myth of the White Revolution: Mohammad Reza Shah, 'Modernization' and the Consolidation of Power," *Middle Eastern Studies* 37, no. 3 (2001): 12.
26. Margaret Laing, *The Shah* (London: Sidgwick & Jackson, 1977), 231.
27. Unidentified Photographer. Date, location, and participants as identified in Catherine Legrand and Jacques Legrand, *Shah-i Iran* (Minnetonka, MN: Creative Publishing International, 1999), 90.



Figure 1.7. Unidentified photographer, Mohammad Reza Shah Pahlavi, Prime Minister Ali Amini, and Minister of Agriculture Hassan Arsanjani Distributing Land Ownership Documents, Kermanshah, 1961. Reproduced from Catherine Legrand and Jacques Legrand, *Shah-i Iran* (Minnetonka, MN: Creative Publishing International, 1999), 90.

authority onto the landscape. The spectacle did not persuade everyone. As Abrahamian notes, "many clerics opposed the regime because of land reform and women's rights."[28]

This clerical resistance reveals a fundamental tension within the modernization project itself: the state sought to impose a secular, concrete modernity upon a society whose deepest institutional loyalties remained rooted in religious tradition. Influential clerical actors opposed key elements of the reform programme, particularly land reform and women's rights, forcing the government into strategic compromises. Meanwhile the economic gains stayed where they had started. Despite overall economic growth during the 1960s and early 1970s, wealth remained highly concentrated among a narrow elite closely connected to the royal family. Rapid industrialization and rural displacement fueled mass migration to cities such as Tehran, producing extensive informal settlements and a socially marginalized urban population.

Farhad Kazemi, Professor Emeritus of Politics at New York University and a prominent scholar in Iranian studies, gives the measure of it: "Notably, only 11.5 percent of agricultural workers were satisfied with their jobs.

28. Abrahamian, *Iran Bayn-e Do Enqelab*, 523.

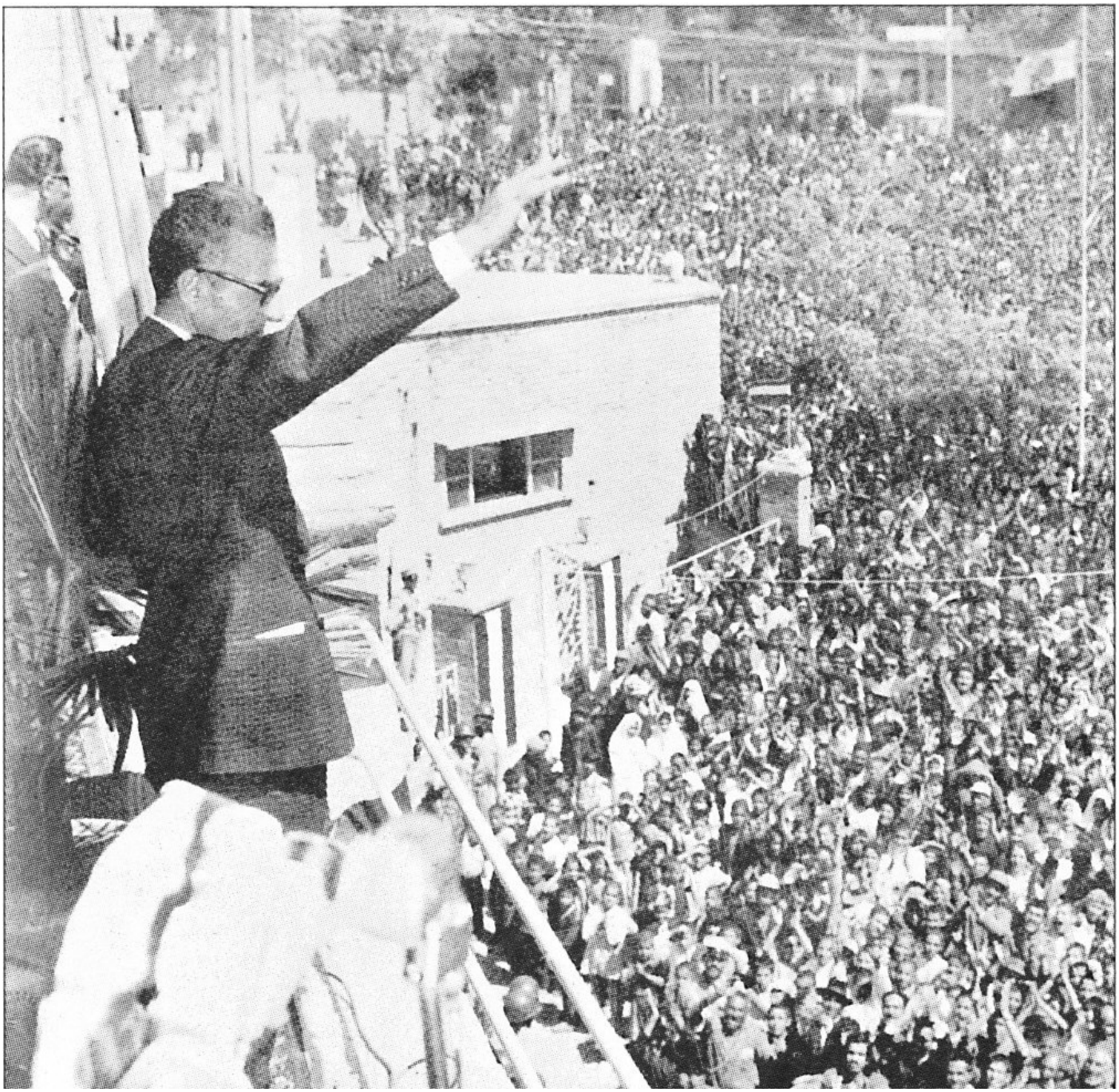


Figure 1.8. Mohammad Reza Shah Pahlavi addressing a public gathering following the ratification of the White Revolution Charter, 1962. Reproduced from Catherine Legrand and Jacques Legrand, Shah-i Iran (Minnetonka, MN: Creative Publishing International, 1999), 94. Persian edition.

Approximately 2,111,000 villagers left their rural homes to move to urban centers."[29] Two million people is not a trend; it is a redistribution of the country. While some of these migrants were driven by the aspiration to improve their lives, for many others, the move was a matter of sheer survival. This mass influx of unskilled labor had a profound and immediate impact on the nation's urban landscape, specifically transforming the construction industry.

As Ervand Abrahamian observes, "The regime's economic and social programs tended to increase regional inequalities,"[30] intensifying disparities between urban and rural areas as well as among different provinces. The consequence for Iran's construction sector was direct, and it has been underexamined. Kamran Diba recalls: "When they implemented land reform, those children had no work... naturally they migrated to the cities... they were amateurs, learning on the job. Laborers from Baluchestan and Pakistani Balochistan who didn't speak Persian at all."[31]

29. Farhad Kazemi, "Urban Migrants and the Revolution," *Iranian Studies* 13, nos. 1–4 (1980): 262.
30. Abrahamian, *Iran Bayn-e Do Enqelab*, 522.
31. Diba, interview by the undersigned, June 4, 2026.

The very laborers who built Iran's monumental concrete structures were thus themselves products of the White Revolution's social dislocations — migrants displaced by the same modernization project that their labor was constructing. Concrete, in this sense, was not only a symbol of state power from above, but a material produced through the labor of a newly displaced rural underclass from below.

The architectural and urban development of the period — often monumental, centralized, and heavily reliant on reinforced concrete — mirrored the structurally imbalanced pattern of modernization itself. Such architectural interventions, rather than fostering organic urban growth, were imposed through a top-down approach that prioritized visual spectacle over social integration. The regime's programs, as Abrahamian observes, tended to increase rather than resolve inequality — and nowhere was this more visible than in the built environment, where gleaming concrete monuments rose alongside informal settlements housing many of the workers who built them.

This contradiction — between a concrete landscape of modernity and a society excluded from its benefits — was not merely an aesthetic failure but a political one, contributing directly to the revolutionary rupture of 1979. The White Revolution's promise of a modern Iran was written in concrete; its failure was written in the lives of those who poured it.

1.5 Tehran: Metropolis of Power and Inequality

Tehran has been the capital of Iran since 1786. Under the Qajars (1789–1925) it was a small fortified city; its most dramatic transformation came during the Pahlavi II era, when it became the physical embodiment of the Shah's modernization project — not only the political capital but the primary stage on which the state's vision of progress was displayed. The population grew from around 700,000 in the 1940s to over four million by the mid-1970s. Section 1.4 has already accounted for where those people came from and what the land reform did to them; what concerns this section is what their arrival did to the shape of the city. The demographic shift was structural: "In 1986, around one-third of Tehran's population were born elsewhere. Twenty years earlier, this figure was around 45%."[32] Tehran became an urban laboratory in which rural migrants, Western-educated technocrats, civil servants, and an emerging middle class were integrated into newly constructed spatial frameworks.

This expansion was not simply demographic. It reconfigured the spatial organization of the capital, producing new relationships between class, geography, and access to modern infrastructure. The growth of Tehran should therefore be understood as a state-managed process in which demographic increase became inseparable from political centralization and spatial restructuring. As the city expanded, modernization was distributed unevenly across it, and urban space itself became an instrument through which social hierarchy was rendered visible.

32. Ali Madanipour, "City Profile: Tehran," *Cities* 16, no. 1 (1999): 59.



Figure 1.9. Tehran map of 1890 (Tehran Municipality), in M. Reza Shirazi and Somaiyeh Falahat, "Urban Oasis, towards a Prototype for Sustainable Urbanity: The Case of Tehran," *International Journal of Society Systems Science* 7, no. 4 (2015), fig. 2.

The stratification is legible in the city's morphology: the north held low-density villa typologies; the centre turned to apartment blocks; the south was characterized by densely packed informal settlements. Ali Madanipour locates the origin of the divide in the 1930s, when the demolition of the city walls and the imposition of a road network opened urban space to free movement and, in the same gesture, to fragmentation and commodification, after which the landscape organized itself around access to resources — the north acquiring larger buildings, higher land prices, lower densities and a concentration of modern amenities, the south the inverse of each.[33]

The middle term of that sequence is where reinforced concrete enters the city's social geography. The technique had reached Tehran's housing stock well before the oil boom, and it arrived as an import: the units of Nārmak, laid out from 1953, were built with KALAD, a French concrete-prefabrication system assembled factory-style at a rate of one house per day from panels measuring 1.10 by 4.40 metres.[34] By the 1970s, concrete and other non-local materials and technologies appeared in most of the capital's mass-housing projects, brought in alongside the international engineers and designers who made the International Style practical in Tehran.[35]

33. Madanipour, "City Profile: Tehran," 60.
34. Habibi, *Modern Middle-Class Housing in Tehran*, 79.
35. Ibid., 140.



Figure 1.10. Tehran, from top to bottom: north, center, and south of the city, 1964. Amir Bani-Masoud, *Contemporary Architecture in Iran: From 1925 to the Present*, 125.

The hierarchy was materialized in infrastructure as well, the width of streets diminishing from north to south a systematic failure to extend modern transit accessibility to the marginalized southern districts. As Amir Bani-Masoud notes: "While the north of the city had a diverse skyline and large houses in which the upper-middle classes lived, the south was the home of poor migrants who tended to live in squalid housing and shanty towns. The latter had low-income, low-skill, low-status, and an insecure position.

The north and south of Tehran were separated by a wide social and physical gap. From the mid-1960s, living in our Tehran was not very different from living in a European city."[36] The comparison with a European city is revealing, because it shows that modernization was measured not only through economic growth but through visual and spatial resemblance to Western urban models.

36. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 124.

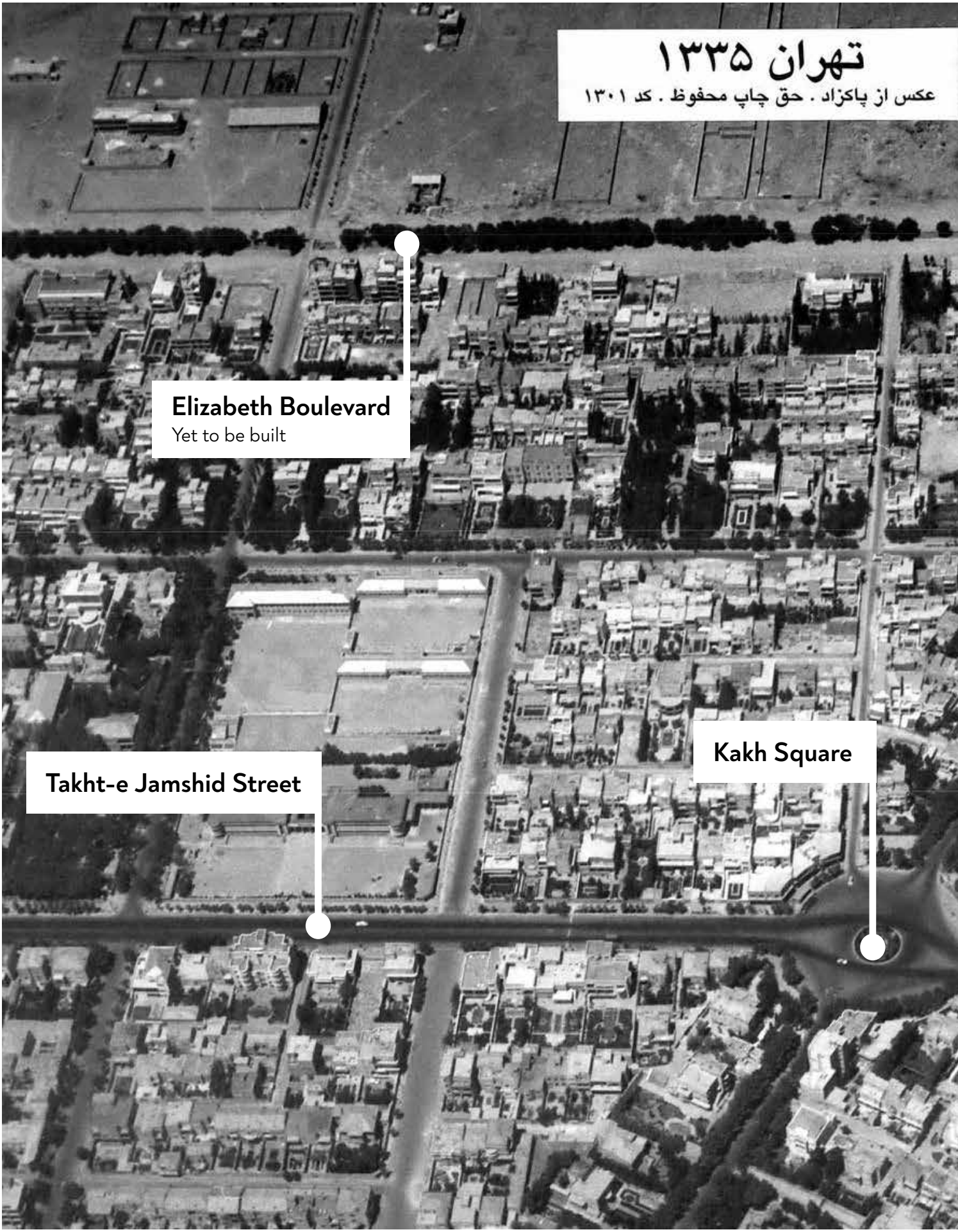


Figure 1.11. Pakzad, *Aerial View of Central Tehran, the Intersection of Pahlavi and Takht-e Jamshid Streets, 1956*. Photograph. Panjerehei Be Dirooz [Facebook profile].

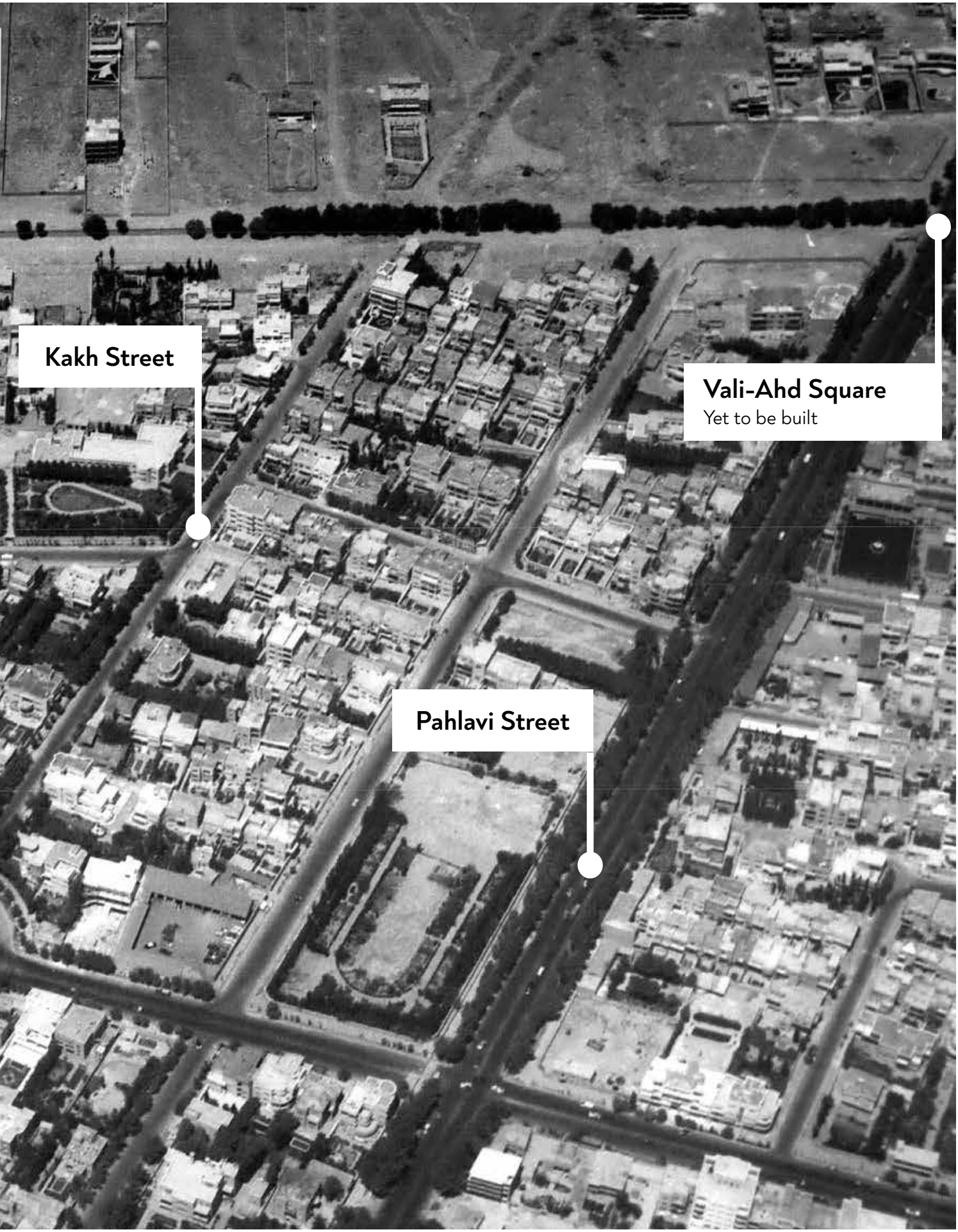

Kakh Street
Vali-Ahd Square
Yet to be built
Pahlavi Street



Figure 1.12. Unidentified photographer, *Shahyad Tower and Informal Settlements in Tehran*, ca. 1970s. Photograph. Press TV, Tehran.

That Europeanization remained highly uneven. Urban form functioned not merely as the outcome of modernization but as one of its principal mechanisms, materially organizing social difference across the capital. Modernization did not eliminate inequality. It gave it an address.

The growth of Tehran therefore exposed a central contradiction of the Pahlavi developmental project: modernization generated unprecedented opportunities for some segments of society while simultaneously reproducing and intensifying forms of urban inequality for others. That wealth was concentrated among a narrow elite has already been established in section 1.4; what the capital adds is the map. The regime used architecture to manifest its authority and modernity physically, a strategy Talinn Grigor describes precisely: "Official Pahlavi architecture was a mirror of its politics. The king's Great Civilization and shortcuts to the future were matched by the clumsiness of his architects."[37] Grigor's observation suggests that architecture should be read not merely as the aesthetic outcome of modernization but as a political instrument through which the state materialized its ideological ambitions.

Government buildings, monumental boulevards, public institutions, and modern infrastructure became tangible expressions of state authority, projecting an image of progress that sought domestic legitimacy and international recognition at once. Tehran's landscape was radically altered by monumental projects drawn from international styles. The material was common to both registers of that alteration: the reinforced concrete that section 2.4 examines as a political technology, and that section 1.3 traced through the dams and monuments financed by oil revenue, was by the 1970s also the ordinary substance of the capital's apartment blocks. Monument and mass housing drew on a single imported technical apparatus, and were separated by what was done with it rather than by what they were made of. Tehran's transformation cannot therefore be understood solely as an attempt to provide infrastructure for a rapidly growing population. Architecture and urban planning became performative acts through which the state materialized its vision of the "Great Civilization." Architecture became less a response to urban needs than a medium through which political legitimacy was spatially performed.

37. Talinn Grigor, *Building Iran: Modernism, Architecture, and National Heritage under the Pahlavi Monarchs* (New York: Periscope Publishing, 2009), 167.

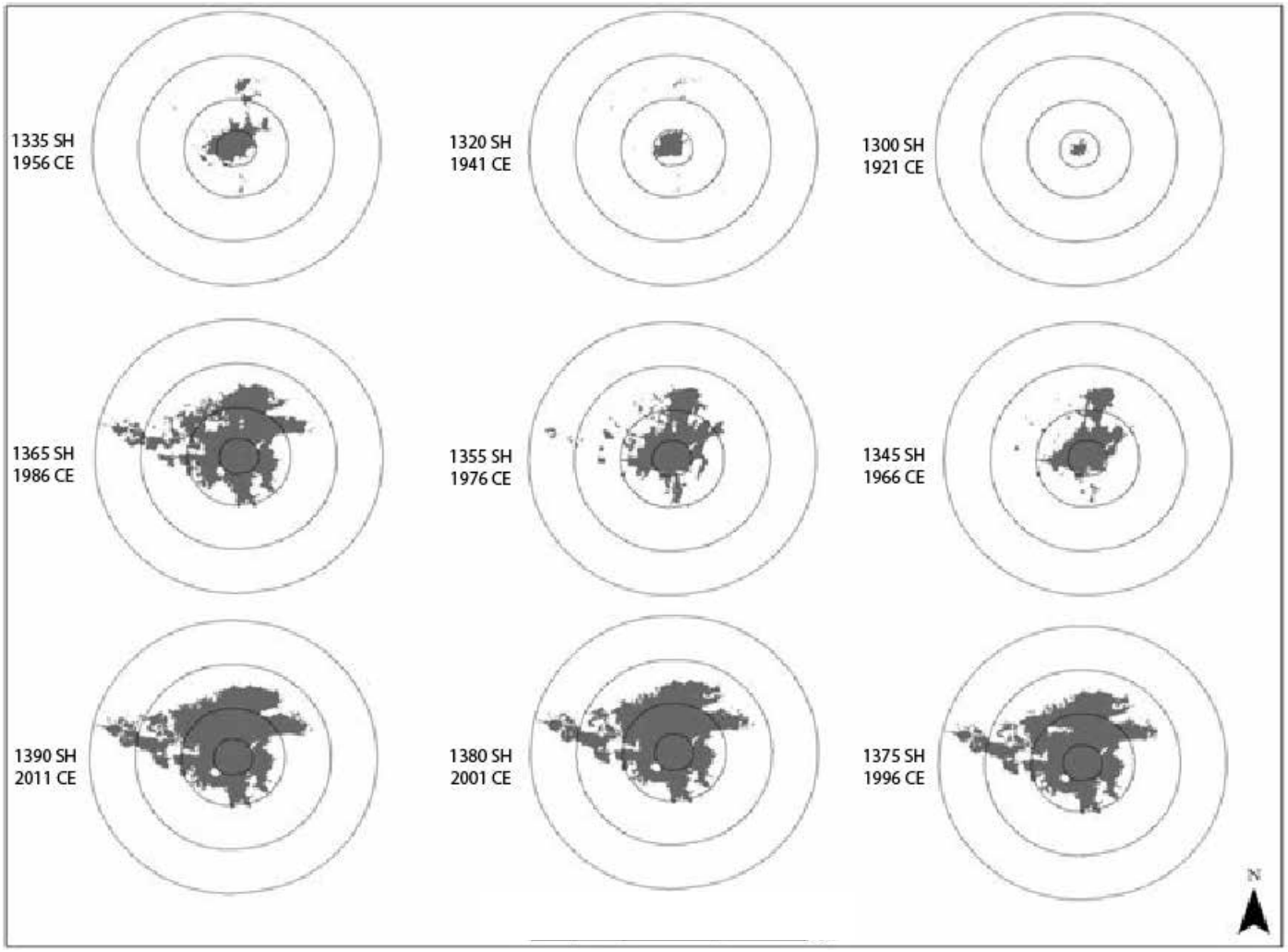


Figure 1.13. Tehran's urban growth, 1921–2011. Faranak Seifolddini and Hossain Mansourian, "Spatial-Temporal Pattern of Urban Growth in Tehran Megapole," *Journal of Geography and Geology* 6, no. 1 (2014), fig. 1.

The production of this metropolitan image was far from homogeneous. Beneath the appearance of a unified state-led modernization project lay professional tensions, unequal access to commissions, and competing positions within Iran's architectural field. Retrospective accounts from architects who shaped the city complicate the picture of a coherent and universally celebrated architectural culture. Reflecting on his own experience, Kamran Diba recalls: "Back then, nobody accepted us... these projects you are talking about were one year before the revolution. The architectural community of Iran at that time didn't know them... All of it was recognized after I left and migrated."[38] Diba's testimony suggests that the making of modern Tehran was neither as unified nor as uncontested as official narratives imply. It also demonstrates the methodological value of oral history, which reveals dimensions of professional experience that remain largely invisible in official state archives.

The account is retrospective, given nearly five decades after the events it describes, and should be weighed accordingly. Tehran in the Pahlavi II period emerged as a site of simultaneous modernization and exclusion: a metropolis that symbolized progress while reproducing social inequality, a showcase of state power that concealed the frictions underlying rapid urban transformation, and a spatial manifestation of the contradictions embedded within the Pahlavi developmental project. Through its monumental projects, expanding peripheries, and infrastructural networks, competing visions of Iran's future were materially inscribed into the urban landscape and into the everyday lives of its inhabitants. Tehran should therefore be interpreted not as the geographical setting of Pahlavi modernization but as its primary material expression, where architecture, infrastructure, and urban planning collectively mediated the relationship between political authority and everyday life. All four of the buildings examined in Chapter 3 stand within it.

38. Diba, interview by the undersigned, June 4, 2026.

02

The Architecture of Modernity: From Global Ideologies to Tehran's Concrete Infrastructure

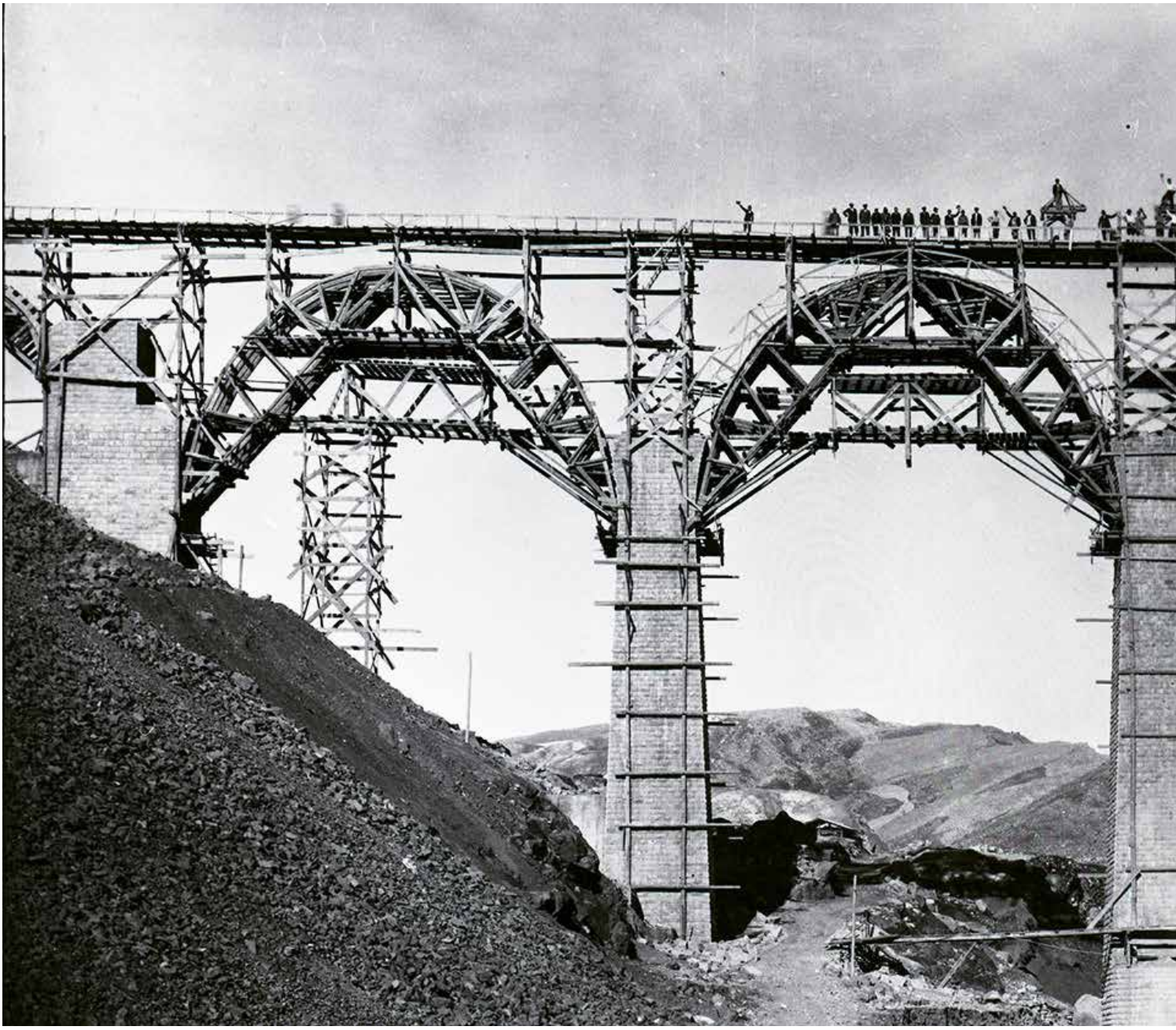
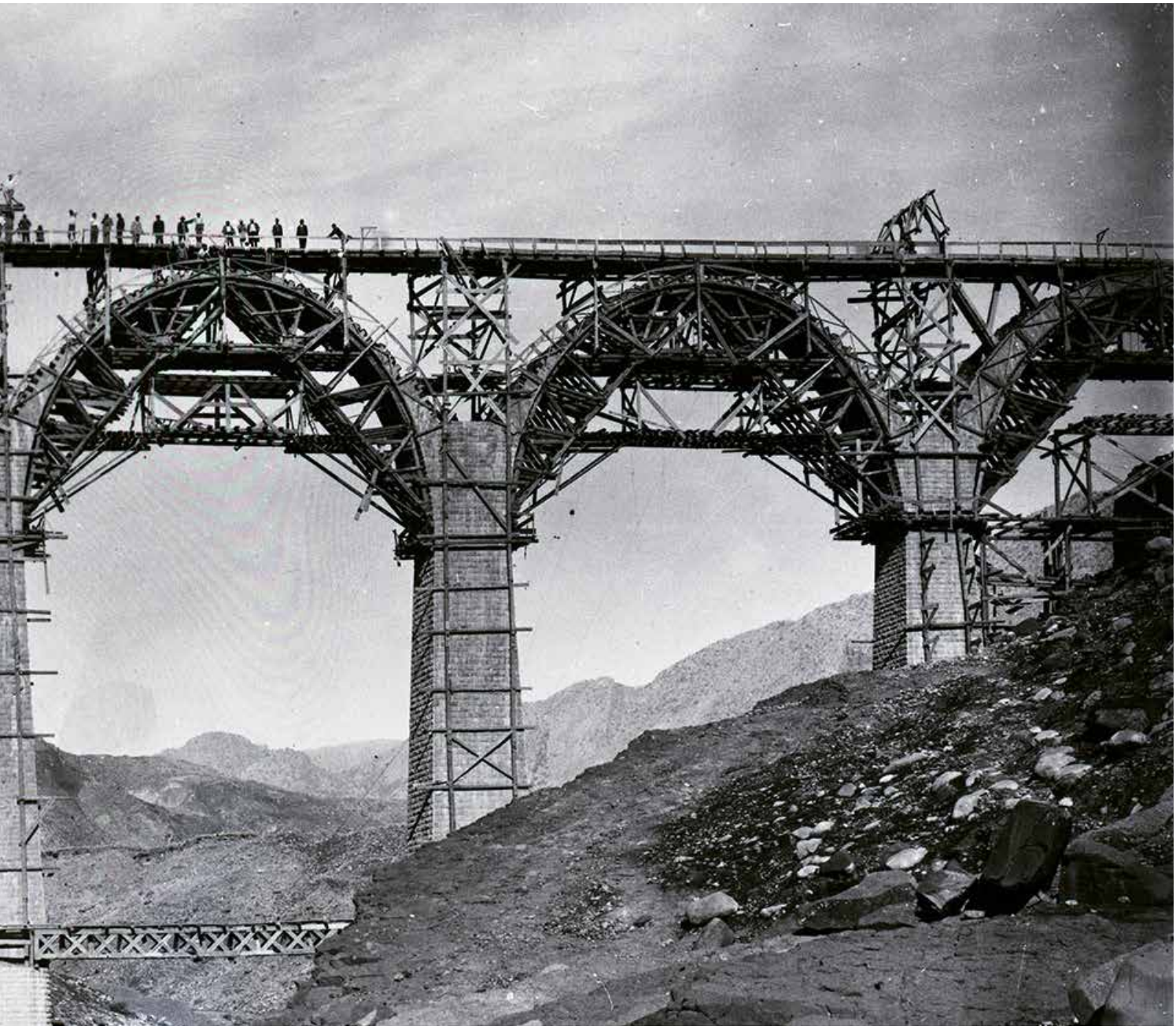


Figure 2.1. Unidentified photographer, "Construction of a Bridge for the Trans-Iranian Railway in the Alborz Mountains," ca. 1930s, photograph, Trans-Iranian Railway Construction Archive, National Archives and Records Organization of Iran.

2.1 The Genesis of Iranian Modernism (Pre-1940s)

Iran's first cement factory was not built for architects. It opened in the vicinity of Tehran in 1933 for a single declared purpose — to supply the reinforced concrete required by the Trans-Iranian Railway — and every subsequent Iranian experiment with the material rests on a decision taken about a railway line.[1] That sequence sets the terms on which concrete entered the country. It arrived as a logistical requirement of state infrastructure, produced under state direction for a state project, and became available as an architectural language only afterwards. Iranian modern architecture did not summon concrete into existence. It inherited it. Three words carry most of the argumentative weight in what follows, and they are not interchangeable. Modernization denotes the socio-economic and administrative process — industrialization, secularization, bureaucratic centralization, infrastructural expansion — through which the Pahlavi state sought to reconfigure Iranian society along Western institutional lines. Modernism designates the architectural and artistic movement that emerged as a cultural response to that process, manifest in the specific formal vocabulary examined below.

1. Golshan Moghassemi and Peyman Akhgar, "The Advent of Modern Construction Techniques in Iran: Trans-Iranian Railway Stations (1933–1938)," in *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 38, Ultra: Positions and Polarities Beyond Crisis*, ed. David Kroll, James Curry, and Madeline Nolan (Adelaide: SAHANZ, 2022), 234.



Modernity names the lived condition the transformation produced: an ambivalent state, defined by an unresolved tension between the aspiration toward a technological future and an anxious reliance on the symbolic authority of the past. Collapsing the three obscures the particular difficulty Iranian architects faced, which was never a simple choice between East and West. They were asked to supply a cultural answer — modernism — to an administrative programme — modernization — whose social consequences nobody had planned for.

Reza Shah's accession in 1925 gave that programme a flagship. Work on the Trans-Iranian Railway had begun in 1927 and accelerated sharply after 1933, when the Danish consortium Kampsax was contracted to finish a north–south line running from the Caspian to the Persian Gulf. The project absorbed roughly $125 million and was financed largely at home, through taxes levied on sugar and tea; its routing served the Shah's own interests as much as the nation's, allowing troops to be moved rapidly between north and south and the produce of his northern estates to be carried to southern ports for export.[2] A line paid for by taxing what ordinary Iranians drank, and aligned to move soldiers and the monarch's grain, was nonetheless presented as the instrument of collective advancement.

2. Moghassemi and Akhgar, "The Advent of Modern Construction Techniques in Iran," 229.



Figure 2.2. Unidentified photographer, "Aerial View of the Gate of Baghe Melli and the Surrounding Administrative Complex, Tehran," ca. 1930s–1940s, photograph, Institute for Iranian Contemporary Historical Studies (IICHS).

The gap between how the railway was funded and how it was narrated is the first instance in this thesis of a pattern that recurs at every subsequent scale. Where the terrain refused the line, concrete answered. The Veresk Bridge, carried across a gorge in the Alborz in reinforced concrete and stone, was reproduced in the Ministry of Transportation's own 1938 commemorative volume on the railway — the state photographing its own capacity to overcome geography.[3] Concrete's speed and structural performance made it the default for the route's bridges and tunnels, while the intermediate stations and staff accommodation continued to be built in local materials wherever suitable stone could be found.[4]

The distribution is telling. The material was reserved for precisely those works that could not be done at all by traditional means, which is to say for the points at which the state's ambition exceeded the existing capacity of the country. Kampsax understood its own role in Iran as pedagogical. Jørgen Saxild, a founding partner of the firm, wrote in its jubilee volume that the consortium had left its mark on the country indirectly as well as directly, since "the Iranian construction workers, who did not know the first thing about modern building methods before Kampsax arrived, went through schooling in their trade by the thousands under the supervision of foreign workers."[5]

3. Moghassemi and Akhgar, "The Advent of Modern Construction Techniques in Iran," 234–35.
4. Ibid., 234–35.
5. Jørgen Saxild, manuscript published in the Kampsax Company's *25 Years' Jubilee Book*, Kampsax Archive; cited in Steen Andersen, "Building for the Shah: Market Entry, Political Reality and Risks on the Iranian Market, 1933–1939," *Enterprise & Society* 9, no. 4 (2008): 645; quoted in Moghassemi and Akhgar, "The Advent of Modern Construction Techniques in Iran," 231.

Read as a company's account of itself, this is unremarkable corporate self-description. Measured against the organizational reality it describes, it is exact but incomplete: the engineers directing the work were overwhelmingly Danish, Swedish, Norwegian and American, the contractors largely Italian, and the handful of Iranian engineers qualified to join the organization found their responsibilities confined mostly to the supply of cheap labour.[6] Technical knowledge did enter Iran through the railway. It entered stratified, with Iranians at the bottom of the transmission chain rather than across it — the earliest documented instance of the division between a foreign-trained managerial stratum and a mass of unskilled site labour that Chapter 1 traced into the 1960s and that section 3.2 will find intact on a construction site in central Tehran forty years later. The stations themselves record a second division, and this one is stylistic. Along the northern line, foreign architects produced buildings in a functionalist idiom — asymmetrical, plastered, concrete-framed, with no Iranian reference of any kind — while most southern stations, following the nationalist programme promoted by Reza Shah and the educated elite, borrowed mud brick, round and pointed arches and geometric carving from Islamic and pre-Islamic precedent.[7] Two architectural answers to the question of national identity were therefore built simultaneously, by the same client, under the same contract, and separated by nothing more principled than latitude. The dilemma that Iranian architects would spend the next four decades debating in print had already been resolved in advance, twice, along a railway line.

Against this infrastructural backdrop, a monumental idiom developed in the capital. The Gate of Bagh-e Melli (1921–1922), built as the entrance to Tehran's military and administrative core, fused traditional masonry with a neoclassical armature. Amir Bani-Masoud records its origin in his Contemporary Architecture of Iran: "The Bagh-e Melli Gate, completed in 1921-1922 and designed by Master Jafar Khan Memar-bashi, was originally built to commemorate the conquest of Tehran by Reza Shah during the coup of the 3rd of Esfand 1299. Its facades bear motifs of the conquest and figures of the Cossack Brigade."[8]

A gate is an ordinary piece of urban furniture; a gate whose façades carry portraits of the brigade that seized the city is a legal document in masonry. What it registers is not the aesthetic preference of a new dynasty but the moment at which the act of taking power was converted into permanent public form — the precedent on which every subsequent Pahlavi monument, up to and including Shahyad, would draw. Bani-Masoud locates the ideological content of that transformation in a specific intellectual inheritance: "The year 1925 should be considered the year the modernization of Iran began, or the year of the formation of 'New Iran'. Of course, it must be remembered that modernism originates from the history of Europe and North America. From the seventeenth century, discussions regarding development were seriously raised among social philosophers, economists, and sociologists in Europe. From the perspective of economists, capital accumulation was considered the foundation of economic development, which leads to social development.

6. Moghassemi and Akhgar, "The Advent of Modern Construction Techniques in Iran," 231.
7. Ibid., 236, 238.
8. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 111.



Figure 2.3. Shirgah Station on the Northern Line of the Trans-Iranian Railway, 1932–33, exemplifying the plain, unornamented functionalist idiom adopted for northern stations. Photograph, courtesy of COWI A/S Archives, Copenhagen. Reproduced as Figure 5 in Moghassemi and Akhgar, "Advent of Modern Construction Techniques," 237.



Figure 2.4. Qom Station on the Southern Line of the Trans-Iranian Railway, 1935–36, designed with Iranian pointed arches flanked by two symmetrical wings, exemplifying the nationalist "Iranian" style adopted for southern stations. Photograph, courtesy of COWI A/S Archives, Copenhagen. Reproduced as Figure 8 in Moghassemi and Akhgar, "Advent of Modern Construction Techniques," 239.

To achieve this goal — that is, capital accumulation — the principle of 'rationalism' was prioritized. In short, modernization in its general sense meant a form of Western rationalism, for which the creation of new social organizations to replace traditional ones, industrialization of the economy, secularism, and the creation of a 'nation-state' were considered necessities. In this perspective, material conditions—not spiritual ones—shaped the behavior and mindset of individuals in society. Ultimately, this attitude limited social progress solely to the quantitative growth of production and technology."[9]

What Bani-Masoud describes as an imported theory of development had, by the 1930s, become an operating procedure. A doctrine that measures progress by quantitative output supplies its own criteria for what counts as evidence of success — kilometres of track, tonnes of cement, storeys per week — and those criteria are satisfied by construction more readily than by any other form of state activity. Building was not one policy instrument among several. It was the instrument whose results could be counted, and counted publicly.

The Shah's own understanding of the railway confirms the point. For him, Bani-Masoud writes, "the lack of a railway was one of the main causes of Iran's backwardness, and its existence was a clear symbol of 'New Iran'."[10] Infrastructure operated in two registers at once, technical and declarative, and the template established here is the one on which Mohammad Reza Shah's concrete megaprojects would later be modelled.

It also worked in a third register, less visible than either. Railways move knowledge as well as freight, and they do so because their construction is dispersed. The Swiss case makes the mechanism explicit: "Buildings aside, however, perhaps it was railway infrastructures, more than any other type of construction, that most facilitated the diffusion of the Hennebique system in Switzerland. By their very nature, railways are networks, the construction of which requires experts who travel throughout the country, bringing their technical knowledge with them."[11] The Swiss and Iranian cases belong to different technical traditions and different political systems, and the comparison should not be pressed further than the mechanism itself.

What it establishes is that reinforced-concrete expertise did not diffuse abstractly. It travelled in the bodies of trained personnel moving along infrastructural corridors — which is precisely why the Kampsax hierarchy described above determined not only who built the railway but who was in a position to build anything afterwards. Talinn Grigor states the institutional consequence for the profession directly: "To complete their cultural vision of a modern Iran, the reformists of the 1920s and 1930s had invited European architects to design most of Tehran's state architecture. At the peak of the Modern Movement, French and Soviet architects were involved in all sorts of commissions to refigure Iran's architectural profession as well as its built environment."[12]

9. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 184.
10. Ibid., 185.
11. Salvatore Aprea et al., eds., *Concrete in Switzerland: Histories from the Recent Past* (Lausanne: EPFL Press, 2021), 44.
12. Grigor, *Building Iran*, 121–22.

The dependency ran in both directions across the border. Between 1932 and 1968, around forty-seven Iranians enrolled at the École des Beaux-Arts in Paris, an institution that also supplied the Faculty of Fine Arts at Tehran University with both its founding director and its curriculum.[13] Iranian architects were not simply excluded from state commissions in the 1930s; they were being manufactured, in Paris, to a specification set elsewhere. Kamran Diba's recollection that the largest Iranian offices still could not produce execution drawings in the 1960s, cited in section 1.2, describes the far end of a dependency established four decades earlier and never fully closed.

Grigor also identifies what the imported expertise was for: "Reza Shah's elite felt that these Western experts were needed to give modern forms to new functions that had been historically absent in Iran, such as ministries, banks, prisons, dams, long-spanning bridges, barracks, secular schools and universities, museums, cinemas, cabarets, bars, villas, and parks, all modeled after Western prototypes."[14] The list is worth reading as a programme rather than an inventory. Nearly every item on it is an instrument of secular administration, secular discipline or secular leisure, and none has an Iranian typological precedent. The state was not commissioning a style. It was commissioning the physical container for a form of social life that did not yet exist in the country, which is why the question of national expression could never be settled at the level of façades.

It was settled there anyway, and selectively. Pre-Islamic revivalism in this period was neither uniform nor accurately described as a single "return to Persepolis": as Pamela Karimi records, "the neo-Achaemenid style adorned Tehran's city hall, national bank, and post-office headquarters, [while] the neo-Sassanian style emerged in the Museum of Iranian Antiquities."[15] Two distinct imperial pasts were mined for two distinct institutional purposes, the Achaemenid for organs of the state and the Sasanian for the museum in which antiquity itself was curated. Advocacy came partly from within — Karimi credits the Zoroastrian parliamentary representative Arbāb Kaykhusraw with promoting pre-Islamic revival in the administrative buildings of the 1930s — and partly from a European enthusiasm for Aryan racial genealogy that the regime found convenient.[16]

Not everyone inside the profession accepted the arrangement. Vartan Hovanesian, writing in 1969 from the far side of the period, recalled its opening moment: "During that era, our young architects, upon completing their studies in Europe and America and returning to their homeland, found themselves confronted with a formidable responsibility: to bestow upon their country the fruits of the knowledge they had acquired over many years."[17] The verb is worth pausing on. To bestow is to give from a position of surplus, and Hovanesian's generation understood themselves as carriers of something the country lacked — a self-conception that made them, structurally, the domestic continuation of the foreign

13. Peyman Akhgar, "Tehran University: A Contested Terrain," *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand* 32, no. 3 (2022): 391, n. 73.
14. Grigor, *Building Iran*, 122.
15. Karimi, *Domesticity and Consumer Culture in Iran*, 53.
16. Ibid., 53.
17. Vartan Hovanesian, "Iranian Architecture at the Crossroads of National and Modern Styles," *Honar o Me'mari* [Art and Architecture Journal], no. 1 (1969): 35. Translated from the original Persian by the undersigned.

expertise Grigor describes rather than an alternative to it. Hovanesian's assessment of what that generation produced is unsparing: "They embarked on their work with great diligence but soon encountered a clash between two distinct ideologies: whether to imitate the past or to look toward the future and adapt architecture to modern methodologies. The former approach, fueled by the nationalistic fervour of the early Pahlavi period, gained momentum for a time. Consequently, several buildings in Tehran—such as the old Bank Melli, the Police Headquarters (Nazmiyeh), the Post and Telegraph Office, and the Registration Office—were constructed in an archaic style."[18] Every building he names is an organ of the state's coercive or fiscal apparatus: the bank, the police, the post, the registry. Hovanesian presents the archaic style as an aesthetic error, but his own list shows it was applied with precision, and to a category. Ancient imperial imagery was attached to exactly those institutions through which the new state touched the individual citizen — the ones that took money, kept records and made arrests. His refusal of the alternative extreme is equally pointed: "As for the second ideology—which favors a detachment from traditional prejudices in order to focus on the present and the future—I must state that while I support this perspective, I am equally averse to its extremes, or what one might call being 'more Catholic than the Pope' in the pursuit of modernity."[19] The moderate position he stakes out here would prove almost impossible to hold, for reasons that had little to do with taste: state patronage set the brief, urbanization set the pace, and concrete's scalability set the plausible size of a commission.

The instrumentalization Hovanesian diagnosed was not an Iranian peculiarity. Mia Fuller's account of Italian colonial modernism in Libya describes a structurally identical operation: "Architects must use local examples because of their manifest design qualities; but they must do so with the understanding that these examples were actually mere vessels of the Roman 'spirit'. To imitate Libyan forms was therefore not to imitate the forms of the colonized population, but to obey the incentive of Latinità ('Latinity')."[20] The geopolitical situations are not equivalent and the comparison is offered only at the level of technique. What it clarifies is the mechanism behind Hovanesian's complaint.

A historical form retained as a vessel, emptied of its original meaning and refilled with state ideology, is not preservation and does not become preservation by resembling it. Meanwhile the city itself was being rewritten. Tehran's regional modernization act of 1930 laid a grid of Haussmannian boulevards over the existing urban fabric, and the resulting street map — completed by French councillors — was among the first appearances of exogenous planning law in an Iranian city.[21] Clearing the ground for it was violent in a straightforward sense: the Qajar fortified walls and their twelve gates were demolished, and the old harem of the Gulistān complex was removed to make room for the Ministry of Trade.[22] In the account of Asma Mehan, an architectural and urban scholar and Assistant Professor at Texas Tech University, this inventory extends to new Ministry of Finance on the site of the royal citadel, the Justice Ministry by

18. Hovanesian, "Iranian Architecture at the Crossroads," 35.
19. Ibid., 53.
20. Mia Fuller, *Moderns Abroad: Architecture, Cities, and Italian Imperialism* (London and New York: Routledge, 2007), 116.
21. Habibi, *Modern Middle-Class Housing in Tehran*, 27.
22. Karimi, *Domesticity and Consumer Culture in Iran*, 54.



Figure 2.5. Unidentified photographer, “Empress Farah’s Secretariat of Niavaran, Tehran,” designed by Kamran Diba, ca. 1970s, photograph, Kamran Diba Website Archive.

Gabriel Guevrekian on the site of the Nayeb al-Saltaneh palace, the wholesale destruction of the Takiyeh Dolat, the principal architectural setting of Shi'a ritual in the capital.[23] Modernization in Tehran was not additive. Each new institution occupied the specific footprint of the institution it superseded, and the substitution was legible to anyone who knew what had previously stood there. Grigor gives the resulting condition its sharpest formulation: "Architecturally, modernity continued to aspire to a vision of tomorrow, but one still imbued with doubt and ambiguity. Eventually, it gave birth to a new society that constantly looked back for a better future."[24] This is modernity in the sense defined at the opening of this section, and it is worth being precise about its causes, which were not psychological. A profession trained abroad to a foreign specification, working for a client who demanded ancient imagery on modern institutions, using a material introduced for a railway and controlled by foreign licensors, was structurally incapable of producing anything else. The backward glance was not a failure of nerve on the part of Iranian architects. It was the shape their commissions had.

23. Asma Mehan, “Tabula Rasa Planning: Creative Destruction and Building a New Urban Identity in Tehran,” *Journal of Architecture and Urbanism* 41, no. 3 (2017): 217.
24. Grigor, *Building Iran*, 106.



2.2 Cultural Modernization and Architectural Patronage: Farah Pahlavi's Influence

"Were I not what I am today, I would wish to be an architect... that is really where woman should have much to say."[25] The wish describes fairly accurately what she went on to do. Farah Diba Pahlavi (born 14 October 1938) was an architecture student at the École Spéciale d'Architecture in Paris when the Shah proposed to her, and she married him in 1959.[26] From that position she "gained power and influence in cultural and social welfare matters, which did not interest the Shah particularly, and acquired her own circle of patronage and influence."[27] The subordinate clause about the Shah's indifference carries the weight of the sentence. A sphere of authority ceded because the monarch found it unimportant is a sphere in which someone else can act with unusual latitude, and architecture fell inside it.

25. Grigor, *Building Iran*, 175.
26. Farshid Emami, "Urbanism of Grandiosity: Planning a New Urban Centre for Tehran (1973–76)," *International Journal of Islamic Architecture* 3, no. 1 (2014): 100, n. 53.
27. Keddie, *Modern Iran*, 141.

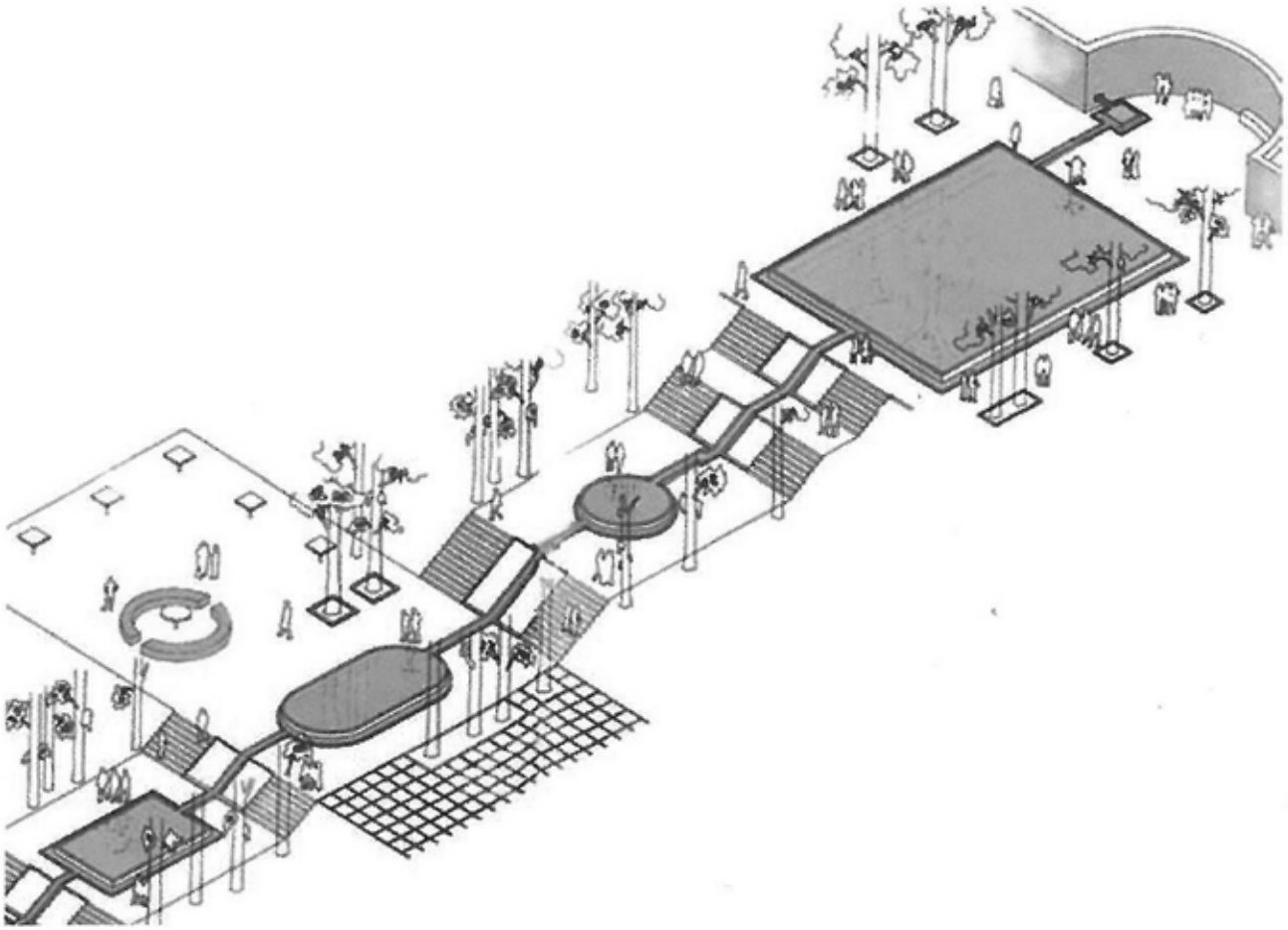


Figure 2.6. Axonometric Drawing of the Niavaran Cultural Centre. Reprinted from *Naqdi bar Asari az Me'mari-ye Mo'aser-e Iran* [A Critique of Contemporary Iranian Architecture], ed. Naghsh Consulting Engineers Co. (Tehran: Center for Architectural and Urban Studies and Research, 2008), 107.

That latitude had a geography. Proclaimed royal regent in 1967 with the title Shahbanou, Farah presided over a domain of patronage distinct from her husband's in both subject and location: his manifest in dams, factories and roads and represented chiefly in the countryside, hers in cultural centres and museums and concentrated within the capital.[28] Reinforced concrete served both programmes. What separated them was not the material but what it was made to say, and where. The official framing of Farah Pahlavi as a coherent cultural strategist sits awkwardly against the actual mechanics of her patronage, which were frequently personal, improvisational, and contingent on individual relationships rather than institutional planning. In a televised interview with Iran International on 31 March 2023, Kamran Diba — Farah's cousin — described a relationship that originated not in a state commission but in a professional dead end. Unable to secure architectural work in Iran, he recalled, he found opportunities routinely allocated through family connections and patronage networks he refused to enter. Nikki Keddie's observation that "in traditional style the queen's Diba family was widely represented in the leadership of cultural and social welfare institutions"[29] establishes that such networks existed and that Diba's own family sat near their centre. It does not establish that he stayed outside them, and the two statements should not be collapsed into one. Having decided to leave, Diba said so directly: "I told Her Majesty that I was planning to leave for America because nobody was giving me work. She said, 'What do you mean you want to leave? Build an office for me instead.'"[30] The exchange complicates the top-down model traced in section 2.1. Where early Pahlavi modernization enlisted foreign and Iranian architects through institutional channels to fill a defined typological need, this account describes royal patronage originating in an ad hoc, kin-based negotiation with no prior programme at all. The commission preceded its own justification.

28. Emami, "Urbanism of Grandiosity," 88.
29. Keddie, *Modern Iran*, 142.
30. Kamran Diba, interview by *Iran International*, "Architect – Kamran Diba," March 31, 2023, Kamran Diba Website. Translated from the original Persian by the undersigned.

What the Empress offered was not a building but a reason to remain in the country; the building had to be improvised afterwards to fill the offer. That sequence is precisely what allowed Diba to rewrite the brief, since nothing had yet been fixed for him to violate. The initial proposal was for an office. After studying the site he concluded that the existing garden warranted a broader public function, and proposed splitting the project into two structures — one the Empress's administrative office, the other a cultural centre open to the public: "I went to see the site and realized it was an old garden with beautiful mature trees. I told the Empress that the programme should change. I would separate the two buildings: one would become your office, while the other would become a cultural centre for the public."[31] Farah accepted, and the scheme became the Niavaran Cultural Centre. An architect unilaterally redefining his patron's brief, and having the revision approved, indicates a degree of authorial agency difficult to reconcile with a straightforwardly authoritarian model of state patronage. If early Pahlavi modernization operated through the top-down importation of Western expertise to serve state-defined functions, the Niavaran episode suggests a partial inversion by the second Pahlavi era: the architect, not the court, determined what the building was for.

Farah Pahlavi's institutional reach extended well beyond individual commissions of this kind. In October 1976 she inaugurated the International Congress of Women Architects, organized with UIFA on the theme of identity crises in architecture, with Anne Tyng and Alison Smithson among the participants; a substantial part of the seminar consisted of the architect Moira Moser-Khalili's critique of the Gruen–Farmanfarmaian master plan, which she attacked both for ignoring the mobility of working women and for its class-segregated structure.[32]

The funding had come the previous year through the same channel: "In 1975 Moira Moser-Khalili received a grant from the Women Organization of Iran, which was headed by Empress Farah Pahlavi, to carry out a study on the Tehran Master Plan. She was an American architect who worked and lived in Tehran during the 1970s with her Iranian husband, Nader Khalili. As one of the editors of the well-known Iranian magazine Art and Architecture, she examined Tehran's urban life with particular attention to the lives of women and the impact of the TMP on their lives and social mobility."[33] Farah's patronage therefore operated at two scales at once — the intimate, kin-based negotiation of the Diba commissions and the formal grant-making of state-affiliated organizations — and the second scale produced something the first did not. A state institution paid for a public critique of the state's own plan for its capital city.

The Tehran Museum of Contemporary Art began in the first register. Diba has described the project as entirely his own, independent of state or court planning: "This museum project that you see was, in fact, my personal project; it was a project I created myself, meaning it was not among the programs of the government or the court or things like that, by no means. It was my proposal.

31. Diba, interview by Iran International, March 31, 2023.
32. Emami, "Urbanism of Grandiosity," 90.
33. Elmira Jafari, "The Making of the Modern Iranian Capital: On the Role of Iranian Planners in Tehran Master Planning at a Time of Urban Growth and Transnational Exchange (1930–2010)" (PhD diss., Delft University of Technology, 2016), 109.



Figure 2.7. Noguès, Alain, "Empress Farah Pahlavi and Andy Warhol at an Exhibition of His Work Featuring Her Portrait Series, Waldorf Astoria Hotel, New York," July 13, 1977, photograph, Sygma/Sygma via Getty Images.

Then, that proposal took four years until I was able to secure funding for it. This was an exceptional case."[34] Four years separated the proposal from the money. Governmental support became decisive only after the project had been conceived, argued for, and kept alive by its author over an interval long enough to have killed it.

Diba's own phrase — "an exceptional case" — deserves to be taken at face value. It implies that he understood the Niavaran and museum commissions as departures from how Pahlavi cultural patronage normally worked, not as illustrations of it, and this chapter should hold that caveat rather than generalize past it. While Diba conceived the architectural project, Farah Pahlavi shaped the museum's collection and its international profile, and that role was programmatic rather than incidental. She "had a dream of establishing a global institution that fostered dialogue between modernist artists in Iran (then Persia) and in the Global North, as well as a new space of literacy and learning for the population en masse."[35]

34. Diba, interview by the undersigned, June 4, 2026.
35. Staci Gem Scheiwiller, "Archiving Donna Stein," review of *The Empress and I: How an Ancient Empire Collected, Rejected and Rediscovered Modern Art*, by Donna Stein, Women: A Cultural Review (2022): 1.



The collection that resulted registers the ambition concretely: works on paper by Atget, Man Ray, Stieglitz, Fox Talbot, Walker Evans and Edward Weston, alongside Gauguin, Matisse, Picasso, Pollock and van Gogh, and — through the deliberate effort of the American curator Donna Stein — Cassatt, Frankenthaler, Bourke-White, Käsebier and Laurencin.[36] Warhol painted a Farah Diba Pahlavi series in 1977 and a Mohammad Reza Shah Pahlavi series in 1978.[37] A portrait of the Empress from that commission entered the museum's own holdings, purchased under her patronage, and it is the acquisition through which the collection's political logic is most easily read.[38] What became of the Shah's portrait is not established by any source consulted for this study. That Warhol painted it, is.

This split is analytically significant, because it divides the museum's political meaning into two registers: an architectural one, in which Diba's spatial ambitions operated with unusual independence, and a curatorial one, in which Farah's taste and diplomatic priorities directly shaped the institution's content and public image.

36. Scheiwiller, "Archiving Donna Stein," 2.
37. Grigor, *Building Iran*, 183.
38. Nahlah Ayed, "The Art of Diplomacy: Getting Warhol and Picasso Out of Tehran," *CBC News*, March 7, 2017.

The Warhol commission belongs to the second. Rather than importing Western modernism as a general marker of sophistication, the regime took an internationally legible contemporary idiom and turned it onto its own image, merging dynastic representation with the visual language of global modernity. In this respect the Warhol acquisitions perform, in the register of collecting, precisely the operation that section 2.1 identified in Neo-Achaemenid architecture: the instrumentalization of an externally legible visual language — there, ancient Persian motifs; here, international Pop Art — to construct and circulate state authority. The museum was not only a repository. It was an instrument of cultural diplomacy through which Iran positioned itself inside international artistic networks — and the portrait is the point at which that instrument can be seen to have worked too well. When the royal couple fled in January 1979 the museum moved its Western holdings, some fifteen hundred works, into a basement vault, where much of the collection remained for decades, withheld to avoid the appearance of deferring to Western taste or of honouring a deposed dynasty; the Empress's Warhol was among the few objects not to survive intact, having been slashed at some point after the revolution.[39] As the collection has gradually resurfaced since, the Pahlavi portraits have been among the last works to come back up.[40]

A commission designed to make the monarchy legible in an internationally recognizable idiom became, for precisely that reason, the part of the collection a successor regime could not put on a wall. The afterlife of these objects lies outside the period this thesis examines and is taken up in Chapter 4.

That diplomatic function extended beyond the museum's walls. Farah Pahlavi's "interests in education, culture, and the arts enabled her to cultivate strong ties with American academics, artists, musicians, librarians, and writers."[41] James Bill records the scale of the resulting network: "In an elaborate conference held at Persepolis in September 1975, the Aspen Institute, in cooperation with the empress's office, invited a wide assortment of Americans considered influential."[42] Read alongside the Warhol portraits, the Persepolis conference indicates a cultural diplomacy working in two registers simultaneously — the visual, through collecting, and the discursive, through the direct convening of American opinion-makers — both aimed at inscribing Pahlavi Iran within an international, and specifically American, cultural imaginary.

Museums were not the limit of the programme. The Shiraz Arts Festival (Jašn-e honar), held for eleven consecutive years from 1967 in Shiraz and among the ruins of Persepolis, likewise "owed its conception to

39. Peter Waldman and Golnar Motevalli, "Iran's Tehran Museum of Contemporary Art Has Been Hiding One of the World's Great Art Collections," *Bloomberg*, November 17, 2015; Ayed, "The Art of Diplomacy." *Bloomberg* describes the portrait as slashed, while the CBC report places its destruction at the outbreak of the revolution. The two accounts do not agree on the timing, and the wording above reflects that.
40. "Iran's Vast Collection of Western Art, Much Long Hidden, Reemerges," *VOA News*, November 24, 2024. The author's own visit to a Warhol exhibition at the Tehran Museum of Contemporary Art in 2021 is consistent with this pattern: the Pahlavi portraits were not among the works shown. This observation is offered as corroboration only; the press record establishes the pattern independently.
41. Bill, *The Eagle and the Lion*, 352.
42. Ibid., 353.

the ideas put forth by the queen of Iran,"[43] and set out to be "a meeting place of the performing arts of the Eastern world with those of the West."[44] Its programming realized that formula literally, pairing Persian dastgāh and regional folk music, and the religious drama of ta'zia, with commissions and premieres from John Cage, Karlheinz Stockhausen, Iannis Xenakis, Olivier Messiaen and Bruno Maderna.[45] The Festival is credited with reviving interest in ta'zia at a moment when the form had nearly disappeared from Iranian cities.[46] A Shi'a passion play was thus restored to national visibility by a secularizing monarchy, as a component of its address to foreign audiences — an outcome worth registering, given what the religious constituency would do to that monarchy within a decade.

Reinforced concrete underpinned both the Niavaran Cultural Centre and the Tehran Museum of Contemporary Art, and Chapter 3 examines the material consequences in detail. What matters here is how the choice was arrived at. It was mediated by the same personal and improvisational logic traced throughout this section — Diba's decisions, funded and legitimized through Farah Pahlavi's direct involvement — rather than by any state-issued material or stylistic directive. Late Pahlavi cultural patronage cannot be reduced to the institutional logic described for the 1920s and 1930s in section 2.1.

Where early Pahlavi modernization proceeded through the state's deliberate importation of foreign expertise to fill an explicit typological programme, the Niavaran and museum commissions were driven by individual relationships and by architects' own initiative, with state involvement entering — decisively, but belatedly — as funder and curator rather than as originating authority.

Autonomy of this kind is easy to overread, and Farshid Emami has warned against doing so. The Queen's court, he argues, "functioned just as another co-optative institution, assimilating a potentially trouble-making societal group, i.e. artists and architects, into the state apparatus," and her patronage of art and architecture remained "highly elitist," with its allusions to tradition confined to the domain of high art.[47] Diba's own position is more equivocal still: he has consistently declined to attribute his career to the family connection, presenting it instead as an obstacle that cost him larger commissions than it won.[48] Neither reading cancels the evidence assembled above. What they establish jointly is that architectural agency and political co-optation were not alternatives in late Pahlavi Iran but the same arrangement described from two ends — the architect experiencing latitude, the state acquiring a constituency. The museum examined in Chapter 3 was built inside that arrangement, and in white concrete tinted to a colour its designer chose himself.

43. Hormoz Farhat, "Shiraz Arts Festival," *Encyclopædia Iranica*, 2015, 1.
44. Ibid., 1.
45. Ibid., 3–4.
46. Ibid., 3–4.
47. Emami, "Urbanism of Grandiosity," 92.
48. Faramarz Hassan Pour, Miles Lewis, and Qinghua Guo, "Criticising Architectural Criticism: Tehran Museum of Contemporary Art," in *Proceedings of the 2nd International Congress on New Horizons in Architecture and Planning* (Tehran, February 2016), 1.

2.3 Concrete and Modernism: A Global Material History

Concrete carried an ideological charge before it ever reached Iran. Across the middle decades of the twentieth century, and across mutually hostile political systems, the material accumulated a set of meanings — speed, order, the state's capacity for rational intervention — that had little to do with its compressive strength and a great deal to do with what governments wanted construction to prove. Iran did not invent those meanings. It imported them along with the cement.

The framing has been substantially theorized, and almost entirely in Western scholarship. Adrian Forty's *Concrete and Culture: A Material History* remains the foundational account of the material's cultural meanings across the century;[49] Reyner Banham's *The New Brutalism: Ethic or Aesthetic?* articulated the ideological stakes of exposed concrete in postwar Britain;[50] Kenneth Frampton's *Studies in Tectonic Culture* situates concrete within a longer argument about the relationship between construction, materiality and architectural meaning;[51] and Jean-Louis Cohen's *Architecture in Uniform* traces how wartime and postwar concrete technologies became vehicles for the global diffusion of modern architecture.[52] None of these authors is writing about Iran, and the concentration is itself worth registering: the interpretive vocabulary available for reading Iranian concrete was produced elsewhere, from other buildings, for other arguments. This chapter borrows that vocabulary. It does not assume it fits without adjustment.

What the material offered regimes in this period was rupture. Reinforced concrete released construction from the temporal constraints of load-bearing masonry, allowing building at scales and speeds that had no traditional equivalent, and architectural theory registered the possibility long before any state exploited it. Frampton finds the anticipation in Auguste Choisy: "Choisy seems to have anticipated reinforced concrete as the sole technique that would prove capable of overcoming the age-old schism and fusing into a single entity the two great lines of Western building culture."[53] The schism in question — between the Greek and the Gothic, form and structure — had organized European architectural argument for two centuries, and Frampton's account of Perret describes the moment when the anticipation became a practice: for Perret, reinforced concrete was "the perfect homogeneous system with which to reconcile the two-hundred-year-old schism lying at the very heart of the Greco-Gothic ideal, that is to say, to combine the asperities of Platonic form with the tectonic expressivity of structural rationalism."[54] A material that resolves a two-hundred-year disciplinary quarrel is already carrying more than load. Ambitions of that order do not stay inside the discipline for long.

49. Adrian Forty, *Concrete and Culture: A Material History* (London: Reaktion Books, 2012).
50. Reyner Banham, *The New Brutalism: Ethic or Aesthetic?* (London: Architectural Press, 1966).
51. Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture* (Cambridge, MA: MIT Press, 1995).
52. Jean-Louis Cohen, *Architecture in Uniform: Designing and Building for the Second World War* (Montreal: Canadian Centre for Architecture; Paris: Hazan, 2011).
53. Frampton, *Studies in Tectonic Culture*, 59.
54. Ibid., 123.



Figure 2.8. “War Speeds Concrete Progress,” advertisement in *The New Pencil Points*, June 1943, CCA Collection, as cited in Jean-Louis Cohen, Architecture in Uniform, 57.

Figure 2.8 shows one route out of it. The image is an advertisement rather than a manifesto, which is precisely its value as evidence: it was placed in The New Pencil Points in June 1943, addressed to American architects in the middle of a war, under the headline "War Speeds Concrete Progress." The claim is not that concrete would survive the war. It is that the war was improving the material. Military emergency is recast as a development programme, and the professional reader is invited to treat wartime necessity as a reason for peacetime specification — the argument for concrete being made not to a public but to the people who write specifications, in the trade press, where it costs money to appear.

The Soviet version of the same enthusiasm dispensed with the commercial framing and stated the identification directly. In Fyodor Gladkov's socialist realist novel *Cement*, the hero announces: "We produce cement. Cement is a firm bond. Cement is us, comrades—the working class."[55] Cement is not what the workers make; it is what they are. No advertisement could go that far, and none needed to.

The fascination was never confined to one bloc, and this is the point on which Iran's position turns. As Forty observes: "While no country in the West became as dedicated to concrete as the USSR, nor developed the means to produce it on the scale of the USSR, Western European countries employed concrete for much the same reasons"[56] — precast systems deployed to accelerate construction, reduce dependence on specialist trades, and address the political imperative of building a stable welfare consensus between capital and labour. From this convergence Forty draws a conclusion that has become the standard answer to a genuine puzzle: it offers "one answer to the question of why it was concrete, not steel or glass, that was the medium of the Cold War."[57] Both systems were building rapidly, cheaply and at scale for populations whose consent they needed. The material that met the requirement was ideologically indifferent, and its indifference is what made it universally legible. Empire produced a comparable charge through a different logic. Mia Fuller, an urban-architectural historian and Director of the Institute of European Studies at the University of California, Berkeley, shows in her work on Italian colonial architecture how Italian architects in the 1930s negotiated between environmental

55. Fyodor Gladkov, *Cement: A Novel,* trans. A. S. Arthur and C. Ashleigh (New York: Frederick Ungar Publishing Co., 1985), 103, cited in Adrian Forty, Concrete and Culture, 147.
56. Ibid., 159.
57. Ibid., 157.

pragmatism and imperial rhetoric, with Carlo Enrico Rava arguing that local design qualities deserved respect while the structural requirements of a modern colony did not bend. As Mia Fuller records the material consequence: "His [Rava's] article suggested instead that the use of arches was inevitable, and foresaw a variety of materials — 'stone, iron, or reinforced concrete' — in their construction."[58] Rava's list is worth reading exactly as written. Concrete appears third, as one option among three, which means the form was fixed by ideology and the material was left open — the arch was non-negotiable because it carried the Roman claim, while what it was built from remained a technical question. The ideological work was being done by geometry, not by the material, and concrete entered as the most convenient way to produce a predetermined shape. The comparison with Iran establishes no equivalence between Fascist Italy and the Pahlavi state. It establishes something narrower and more useful: that a material's ideological meaning is assigned by the programme it serves, and can therefore be reassigned.

Reassignment requires someone doing the assigning, and in Iran during these decades there was more than one candidate. Forty's question — why concrete, and not steel or glass — accordingly has an Iranian answer, and it is not the one implied by describing Iran as positioned between the blocs. Iran was not a neutral midpoint between two systems that happened to share a material. It was a place where both systems spent money on construction and then argued publicly about what the resulting structures proved. Truman's Point IV programme, the principal channel of American technical assistance, built dams and roads in Iran alongside its work on rural conditions and disease control.[59] Associate Justice William O. Douglas of the U.S. Supreme Court stated the underlying purpose without embarrassment: "we (the U.S.) will write their history instead of letting Soviet Russia do it."[60] A programme of historiography, executed in cement and asphalt. Section 1.2 has already traced how contested that presence became on the ground.

More revealing than either bloc's expenditure is what Iranian architects did with the distinction. Writing in *Me'mari* [Architect] in the mid-1940s in favour of mass housing, Vartan Hovanesian took the trouble to reassure his readers that the thinking behind such projects was closer to Western than to Soviet models.[61] Nothing in the structural or economic logic of mass housing required that reassurance. He offered it because a large concrete housing block was already legible in Tehran as an argument about which side the country was on, and an architect proposing one had to specify which argument he intended. The bloc-coding of concrete did not arrive in Iran with the aid programmes, or with the licensed factories, or with the foreign engineers. It was being performed in the Iranian professional press before Point IV existed — by the same architect whose objection to archaizing state architecture appears in section 2.1.

58. Fuller, *Moderns Abroad*, 112.
59. Karimi, *Domesticity and Consumer Culture in Iran*, 89.
60. William O. Douglas, cited in J. Donovan, *U.S. and Soviet Policy in the Middle East 1945–56* (New York: Facts on File, 1972), 97–98; quoted in Karimi, *Domesticity and Consumer Culture in Iran*, 88.
61. Karimi, *Domesticity and Consumer Culture in Iran*, 87. Karimi's text dates Hovanesian's article to 1946; her note gives Vartan Hovanesian, "Architectural Issues in Iran: From a Social Perspective and the Housing Crisis," *Me'mari* [Architect] 1, no. 4 (June 1947): 140. See Karimi, 200, n. 15. Karimi transliterates the name as "Hovanesian."

This is the specific sense in which Pahlavi Iran's concrete was Cold War concrete: not analogous to the European and Soviet cases but continuous with them, part-financed by one bloc's aid apparatus, defended in print against the other's example, and poured by firms working under foreign licence. What Iran did not import was the political settlement that had made concrete a redistributive instrument in postwar Europe. Section 3.2 follows a single precast panel to an address on Elizabeth Boulevard, where the consequences of that omission take a form no theoretical account can supply.

2.4 Concrete as an Ideological Catalyst in Iran

Architecture under the Pahlavi regime cannot be understood through its materials or construction techniques alone. It also functioned as a medium through which political authority was represented and legitimized, and Peyman Akhgar's study of Tehran University — designed in 1934, during Reza Shah's reign, by architects trained at the École des Beaux-Arts in Paris — finds that the Beaux-Arts method remained "an appropriate method to express state power and identity through architecture" well beyond the regime that first employed it.[62] Akhgar attributes that durability to a specific property: "The openness of the Beaux-Arts approach enabled the meaning of the campus to shift and to symbolise different ideals of state power as political circumstances in Iran changed."[63] What Akhgar identifies in a design method, this chapter identifies in a material.

Reinforced concrete carried no fixed political meaning of its own, and that indeterminacy is what made it useful. Usefulness of that kind requires an apparatus to deploy it, and the apparatus in Iran was never singular. Centralized planning institutions proliferated across these decades without producing centralized results, a disjunction that Mia Fuller records in colonial Libya with unusual bluntness: "The Committee's main activity consisted in evaluating city plans; while individuals and individual government offices continued to commission and build as they chose."[64] Ali Madanipour describes the Iranian version of the same structure from the other end, through the actors rather than the committee: "Development agencies are those individuals and firms that have been involved in the urban development process, in the creation and transformation of the built environment."[65] These are not a colonial case and an Iranian case set side by side for comparison. They are two descriptions of one arrangement, in which a state announces a programme and a dispersed field of ministries, agencies, consultants and contractors decides, project by project, what actually gets built. Madanipour's definition moves the analytical weight off the state as a singular actor and onto the network through which modernization was materially produced.

The Amir Kabir Dam, examined in section 1.3, shows the arrangement at national scale: an American contractor executing a project of national symbolism under Iranian supervision, financed by oil revenue, administered by a Plan Organisation that graded and listed foreign firms for bidding.

62. Akhgar, "Tehran University," 385.
63. Ibid., 385.
64. Fuller, *Moderns Abroad*, 111.
65. Madanipour, *Tehran: The Making of a Metropolis*, 163.



Figure 2.9. Unidentified photographer, "Mohammad Reza Shah Pahlavi Visiting the Model of Ekbatan Town, Accompanied by Rahman Golzar, Architect, Owner, and Investor, Tehran," 1974, photograph, Wikipedia Archive.

Architectural production followed the same logic at smaller scale, with private offices such as Abdol-Aziz Farmanfarmaian's collaborating with state institutions while also operating alongside and independently of them. Madanipour states the division of labour precisely: "The development agencies in the public sector act more as clients which invest in the production of space by public money... A project might be planned and designed by either public or private sectors, but construction is nearly always carried out by the private sector."[66]

Read as administrative description, this is unremarkable; most twentieth-century states procured buildings this way. Read as a distribution of visibility, it is the organizing fact of this section. The public sector purchased and inaugurated. The private sector built.

Figure 2.9 shows the arrangement in a single frame: the Shah inspecting a model of Ekbatan in 1974, accompanied by Rahman Golzar as owner and investor. Present in the photograph are the monarch, the financier, and a future city reduced to a scale model. Absent is the site, and everyone on it.

This is the sense in which reinforced concrete functioned in Pahlavi Iran as a political technology rather than a construction method. Section 2.3 established that the material entered Iran already bloc-coded, part-financed by American aid and defended in Iranian professional journals against the Soviet example; section 1.3 established the fiscal mechanism by which oil rent was converted into built form. What the institutional structure described here adds is an answer to the question those accounts leave open — how

66. Madanipour, *Tehran: The Making of a Metropolis*, 165.

the state came to own the meaning of buildings it did not build. Ownership of the image and ownership of the execution were separated by the procurement system itself. A dam, a stadium or a tower could be credited to national modernization at the ribbon-cutting while its production remained distributed across a foreign contractor, a licensed panel factory, a private consultancy and a subcontracted workforce, none of which appeared in the photograph. Concrete was the material through which economic power was made visible. The institutions through which it was procured were what kept everything except the finished surface out of view. The same structure underwrites the larger claim this thesis makes for the material. By the 1970s concrete had become the primary language in which Iran conducted its argument about its own position in the modern world — the medium of Shahyad's monumentality, of the Aryamehr complex's demonstration of hosting capacity, of the museum's claim to discernment, and of the ordinary apartment blocks that housed the professional class produced by all three.
A language requires that its speakers agree on what its terms mean. What made agreement possible here was not doctrine but the same indeterminacy Akhgar identifies in Beaux-Arts method: concrete could be Corbusian or nativist, redistributive or exclusive, imported or domesticated, and no property of the material adjudicated between these. Every institution in the fragmented field could therefore load it with whatever meaning its own commission required.
The apparent coherence of Pahlavi concrete architecture rests on a shared material and a shared vocabulary of progress rather than on a shared programme, which is why the buildings examined in Chapter 3 resemble one another considerably less than the rhetoric surrounding them suggests.
One consequence of the arrangement should be stated directly rather than left as implication.

A system that distributes production across many actors also distributes accountability, and the documentary record reflects it. The press coverage of the Saman Towers, examined in section 3.2, shows exactly this pattern, and later scholarship, working from the same press, inherited the omission. Whether the Pahlavi state configured its documentary apparatus deliberately to that end is not established by any source consulted for this study, and the claim advanced here is the narrower one: an institutional structure in which the state acted as client rather than builder made the labour and social costs of concrete construction nobody's obvious responsibility to record. The material was flexible. So was the question of who answered for it.

2.5 Transnational Exchanges and Knowledge Transfer

Transnational exchange in this period ran in both directions, and the return traffic mattered more than the inbound. Iranian architects trained abroad came home with a plural and unsettled inheritance. What they acquired during the 1970s, at conferences and award seminars held partly on Iranian soil, was something harder to import than a style: standing. What that standing was worth to a state that needed its buildings justified is the question this section pursues.
The inheritance itself was never singular, and Amir Bani-Masoud is precise about its incoherence: "A parallel movement to the prevailing modern architecture of Iran, which was mainly supported by Iranian architects educated either abroad or at the University of Tehran, took shape between the 1960s and 1970s, heavily influenced by the intellectual atmosphere of Iran in those decades.

However, one should not forget that the movement that took shape in the 1960s and 1970s in Iranian architecture was the same modern architecture that had been fragmented between the International Style and native Regionalism."[67]

The canon behind that fragmentation was equally mixed: "The modern architecture formed during this period was primarily supported through the works of architects and the ideas of trendsetting European movements, including: the International Style, the Bauhaus school, and the works of Le Corbusier, Frank Lloyd Wright, Richard Neutra, Alvar Aalto, James Stirling, and others."[68] Corbusian functionalism and Wrightian organicism cannot be reconciled into a doctrine, and no Iranian architect attempted it. The plurality of the imported canon is what prevented an orthodoxy from forming, which meant each commission could be argued on its own terms rather than against a standard — the professional counterpart of the institutional fragmentation described in section 2.4.

Hybridity of this kind is usually diagnosed as a failure to arrive. It was closer to the working condition of the field: architectural identity in Pahlavi Iran was negotiated project by project rather than settled by doctrine, and the buildings that now look most convincing are those that treated tradition as design material rather than as ornament applied afterwards. Bani-Masoud notes the standard domestic reading — "Most domestic literature considers this movement to be influenced by the ideas and discourses of post-modern Europe, primarily those discussed in Postmodernism."[69] Filing Iranian production under delayed European postmodernism explains the vocabulary and nothing about the commissions, the clients, or the climate the buildings had to survive.

Two events concentrated the exchange. Bani-Masoud records both: "This period witnessed the formation of two significant international architectural conferences in Iran, which served as critical platforms for knowledge transfer: the 1970 Isfahan conference on 'The Possibility of Linking Traditional Architecture with Modern Construction Methods,' and the 1974 Persepolis conference on 'The Role of Architecture and Urban Planning in Developing Industrialized Nations.' The Isfahan gathering was particularly influential, largely due to the presence of Louis Kahn, whose philosophical and poetic conceptualization of architecture deeply impacted Iranian practitioners like Nader Ardalan and Kamran Diba. The discourse fostered at this event eventually catalyzed significant national projects, most notably the commissioning of Louis Kahn for the Abbasabad master plan in Tehran. Following this, the 1974 Persepolis conference expanded the scope of debate by hosting architects such as Kenzo Tange, James Stirling, and Hassan Fathy, further embedding Iranian practice within global modernist debates."[70] Kahn's presence is independently documented: he travelled to Iran for the First International Congress of Architects at Isfahan in September 1970, and gave an interview to Art and Architecture the following year.[71]

67. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 267.
68. Ibid., 266.
69. Ibid., 267.
70. Ibid., 267.
71. Emami, "Urbanism of Grandiosity," 99 n. 30, citing "Interview with Louis Kahn," *Honar o Me'mari* [Art and Architecture Journal], no. 8 (1969): 66–68.



Figure 2.10. Unidentified photographer, “Linking Traditional Architecture with Modern Construction Methods, The First International Congress of Architects, Isfahan,” September 1970, photograph, Ivan.culturalgroup [Instagram profile].

What Kahn offered this generation was methodological rather than stylistic — not forms to imitate but a way of asking what a building owes to its place, and how material, structure, light and spatial order might carry the meaning of a site without reproducing historical motifs. For Ardalan and Diba, that licensed treating Iranian spatial tradition itself as design material, on the same conceptual footing as the modernist canon they had studied abroad. Ardalan's own theoretical statement followed three years later in The Sense of Unity, written with Laleh Bakhtiar, which read the courtyard house as a diagram of Sufi cosmology.[72]

Not everyone read the symposia as a widening of the field. Pamela Karimi, drawing on Talinn Grigor, describes the same gatherings — Kahn, Paul Rudolph and Buckminster Fuller among the invitees — as producing "newly fabricated elitist ideas" that were "detached from local sensibilities," precisely because their authors took their cue from mainstream Western architectural trends.[73] The criticism has force, and part of the evidentiary record supports it: Karimi observes that very few buildings were ever completed that bear the theory out. Tradition recovered as design material at an international congress is not the same thing as tradition in use, and the distance between the two is where most of this generation's work stayed.

The Aga Khan Award for Architecture formalized what the conferences had begun. Established in the mid-1970s as a triennial prize of unprecedented scale — up to $500,000, distributed across as many as five awards — it was intended to address what the Aga Khan described as "the vacuum in the contemporary search for solutions to design, construction and environmental problems in the Moslem World."[74]

72. Nader Ardalan and Laleh Bakhtiar, *The Sense of Unity: The Sufi Tradition in Persian Architecture* (Chicago and London: University of Chicago Press, 1973), discussed in Karimi, *Domesticity and Consumer Culture in Iran*, 138–40.
73. Karimi, *Domesticity and Consumer Culture in Iran*, 214, n. 74, citing Grigor, *Building Iran*, 164; see also Karimi, 140.
74. “Triennial Aga Khan Prize Will Award Up to $500,000,” *Architectural Record*, August 1979, 7.

Nader Ardalan sat on the programme's international steering committee alongside Hasan Fathy, Charles Correa and Oleg Grabar of Harvard, placing an Iranian architect at the institutional centre of a discourse that would define what counted as authentic architecture across the Islamic world.[75] Traffic between that institution and the Pahlavi state ran directly. At the Award's 1978 seminar on architectural transformations in the Islamic world, Jaquelin Robertson presented sections of the Shahestan Pahlavi report — the master plan for Tehran's new imperial city centre — to an international audience convened under the Aga Khan's auspices.[76] A programme founded to adjudicate architecture in the Muslim world became, on that occasion, a venue at which the Iranian state's largest unbuilt project was submitted for international validation.

The stakes of the framework became explicit at another of the Award's early seminars, where Ardalan and Diba — both, notably, based in the United States at the time — opposed the so-called Turner faction, which argued that the architect should withdraw from housing and community design in favour of user-led construction. Diba's response, delivered on record, reasserted the architect's social authority while conceding its risks: "Architects should be the true representatives of the user. Society should be aware of the inherent power of the architect/planner and of his role in the formation of our environment. In societies where a lack of cultural awareness prevails, planners and designers should be subsidized by the government to channel precious resources in a direction that creates environments which are sympathetic to culture, tradition and humanity."[77] The phrase to hold onto is "subsidized by the government." Diba locates architectural authority neither in the market nor in the user's own agency but in a state mandate to protect culture against unmediated development — a position argued in English, at an international forum, and directly applicable to the state commissions waiting at home. Transnational participation did not simply carry knowledge into Iran. It generated the professional standing on which Iranian architects could argue for state patronage as a cultural obligation rather than a favour — an argument conducted in the language of the discipline, and addressed to an audience that included the state. Not all transfer ran through institutions.

Reflecting on the design culture of the period, Kamran Diba recalls: "At that time, a Mexican architect named Candela had become fashionable… later even Saarinen… It had become fashionable to create shells."[78] Fashion moved ideas as efficiently as any congress, and the shell vogue Diba describes arrived through magazines and conversation rather than through a programme. Magazines are the other half of the story, and the traffic there ran two ways. Architectural Record and Architectural Forum circulated foreign theory and structural technology to Iranian practitioners on a monthly cycle, without the scheduling and invitation lists that governed conferences. In these same years they also began to report on Iran.

75. "Triennial Aga Khan Prize," 7.
76. Emami, "Urbanism of Grandiosity," 99, n. 35, citing Jacquelin T. Robertson, "Shahestan Pahlavi: Steps toward a New Iranian Centre," in *Toward an Architecture in the Spirit of Islam*, ed. Renata Holod (Philadelphia: Aga Khan Award for Architecture, 1978), 44–51.
77. "Should We Not Be Considering Form at This Conference? Can We Achieve Anything but Mediocrity if We Leave the Form Making to the User?" *Architectural Record,* August 1979, 52.
78. Diba, interview by the undersigned, June 4, 2026.

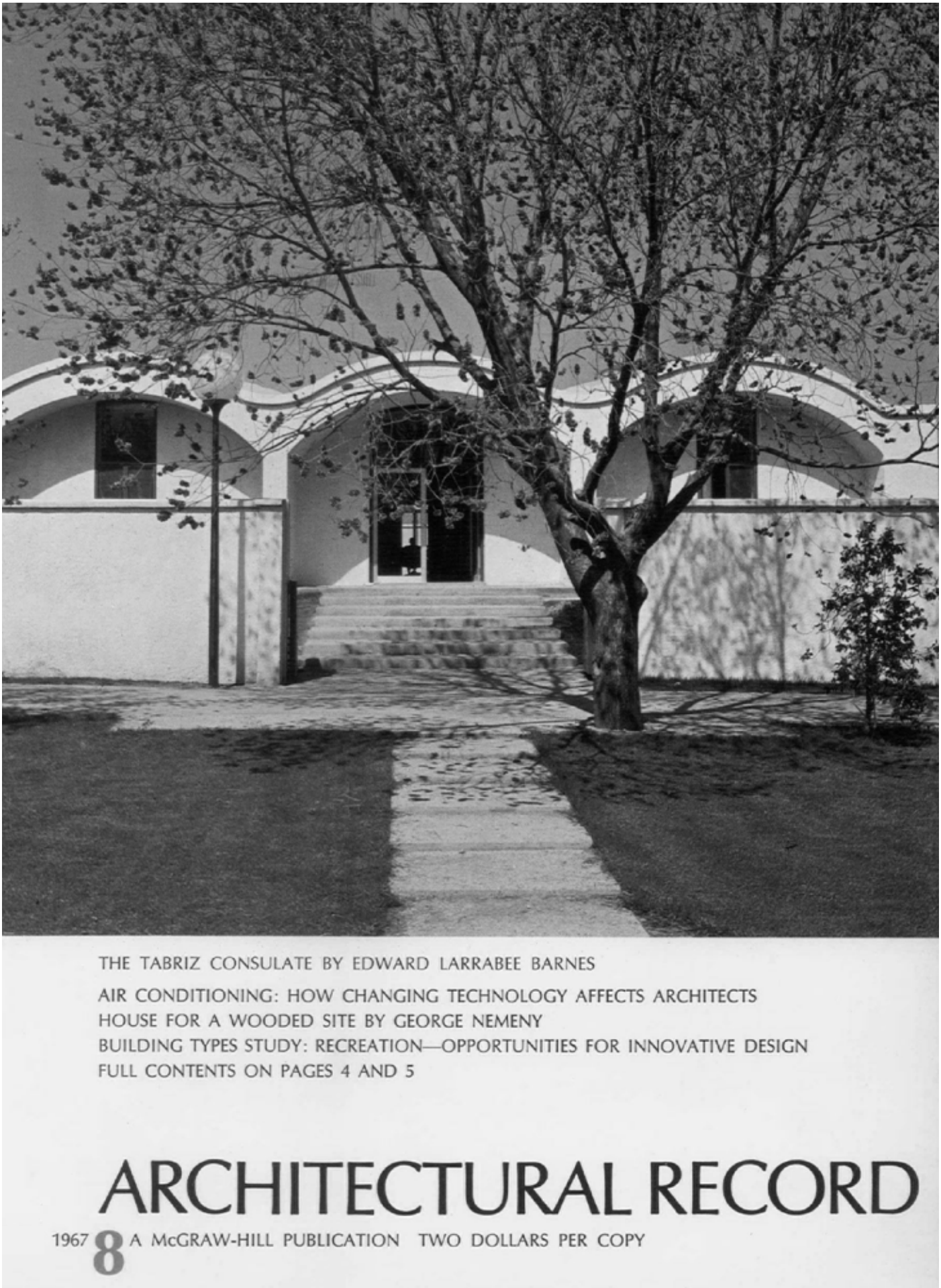


Figure 2.11. Cover of *Architectural Record*, August 1967, featuring Edward Larrabee Barnes's design for the U.S. Consulate in Tabriz, Iran.

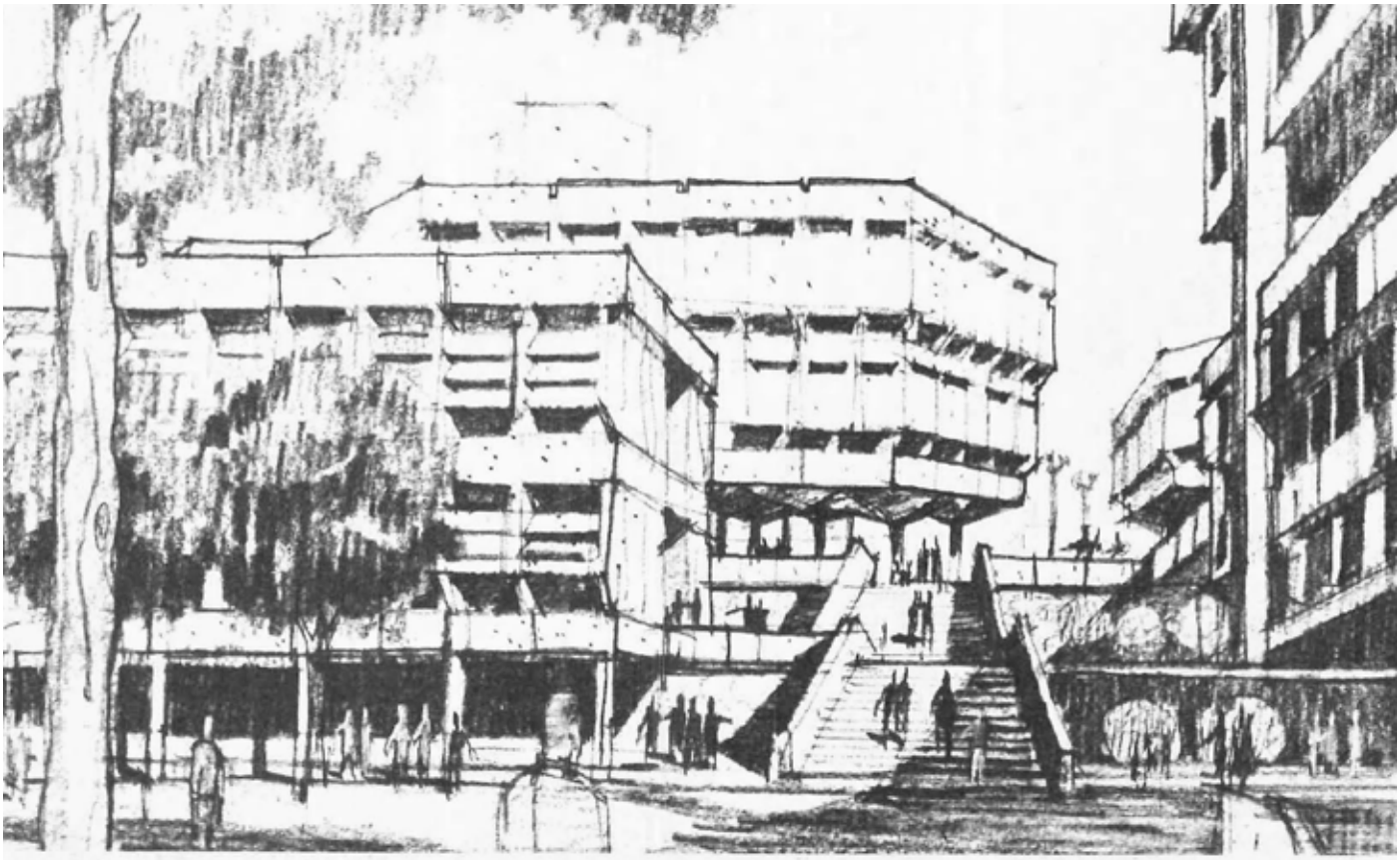


Figure 2.12. A Sketch for Pahlavi University in Shiraz, Iran, by Robert S. McMillan Associates. Published in *Architectural Record*, May 1969, 88.

Western coverage favoured projects in which foreign architects engaged Iranian construction idioms. The August 1967 issue of Architectural Record put Edward Larrabee Barnes's design for the U.S. Consulate in Tabriz on its cover: "Edward Larrabee Barnes' U.S. Consulate at Tabriz, Iran, took its controlling architectural idea from the Iranian way of building, with a system of stucco-covered brick walls and domes set inside traditional walled compounds."[79] The operative phrase is "controlling architectural idea." Barnes's engagement with Iranian building is presented not as stylistic borrowing but as the generative logic of the design, and the placement reinforces the point — the project ran as the lead story, not an inside notice. In this account Iranian building tradition is not a supply of decorative motifs to be applied after the fact but a body of spatial and structural knowledge an internationally credentialed architect could adopt as a starting position. Robert S. McMillan's 1969 account of his own international practice, published in the same journal under the heading "Practice abroad: a rewarding study in comprehensive frustrations," places Iran in an entirely different frame.

His article situates the country within a broad geography of American professional expansion into the "emerging nations" of Africa and the Middle East: "to Iran (five hours by jet), where we were designing Pahlavi University in Shiraz; and to Libya (only two hours by jet—when the planes were flying), where we had been commissioned to build two hospitals, two office buildings and 18 clinics."[80] Pahlavi University appears as a line item in an itinerary that also took in an office building in Nairobi and military installations in Nigeria, measured in flight-hours from a Rome office rather than in cultural significance.

Read against each other, Barnes and McMillan show two registers of the same phenomenon. One treats Iran as a site of deliberate cultural synthesis worth analysing in print; the other folds it, almost incidentally, into the logistics of a global itinerary. Neither register is more true than the other. Together they show that architectural modernization in Iran depended as much on the ordinary circulation of firms, contracts and personnel as on the iconic buildings and named architects that dominate the historical record.

79. "Architecture That Respects a Long Tradition," *Architectural Record*, August 1967, 8.
80. Robert S. McMillan, "Practice Abroad: A Rewarding Study in Comprehensive Frustrations," *Architectural Record*, May 1969, 88.

Pahlavi National Library Project
Tehran, Iran

GOVERNMENT OF IRAN ANNOUNCES INTERNATIONAL ARCHITECTURAL COMPETITION FOR DESIGN OF NATIONAL LIBRARY

An Important International Architectural competition for the design of a 100,-000 square meter national library building to be constructed in Tehran, has been announced by the Government of Iran. Conducted under the rules of the International Union of Architects, this will be a single-stage competition, open to any registered architect, to any architect entitled to practice architecture in his own country, or to any team led by such an architect. Two-hundred thousand dollars in prizes will be distributed as follows:

$50,000—FIRST PRIZE
$25,000—SECOND PRIZE
$25,000—THIRD PRIZE
$10,000—EACH, FOR NEXT TEN DESIGNS SELECTED BY THE JURY

The first prize winner will receive a commission to design the project.

By decree of His Imperial Majesty, the Shahanshah of Iran, the proposed new library has been officially designated The Pahlavi National Library.

The new library will be prominently located in Shahestan Pahlavi, the future city center of Tehran, now in an advanced stage of planning.

The Pahlavi National Library, planned by a group of national and international experts and consultants as a model national library, is expected to be one of the most advanced national libraries in the world. The planning which has gone into the preparation of the building program, together with the importance of the site in the Shahestan Pahlavi, combine to make this an architectural competition of outstanding importance and significance.

Architects who meet the qualifications outlined above may register for the competition and request the competition documents by forwarding a registration fee of $70.00 (U.S.) together with a certificate attesting that they are registered architects, or are entitled to practice architecture in their own country.

The registration fee may be paid as follows:

1. **By check drawn to the order of the Pahlavi National Library Project, International Architectural Competition, or**
2. **By bank transfer to: Account No. 1126, Pahlavi National Library Project, International Architectural Competition, Bank Melli Iran, Aryamehr Square Branch, Tehran, Iran.**

The check, or a copy of the bank transfer slip, should be sent with the registration request to the Pahlavi National Library Project, Committee for the International Architectural Competition, Aryamehr Square, 9 Bisotun Avenue, Tehran, Iran.

The registration period extends from January 22 to April 19, 1977. Program documents will be mailed to registrants between April 4 and May 1, 1977. Deadline for receipt of all entries is January 20, 1978. The program for the competition will be available in both Persian and English. All entries must be in English.

Figure 2.13. Official Announcement for the Pahlavi National Library International Architectural Competition in Tehran. Published in *Architectural Record*, January 1977, 44.

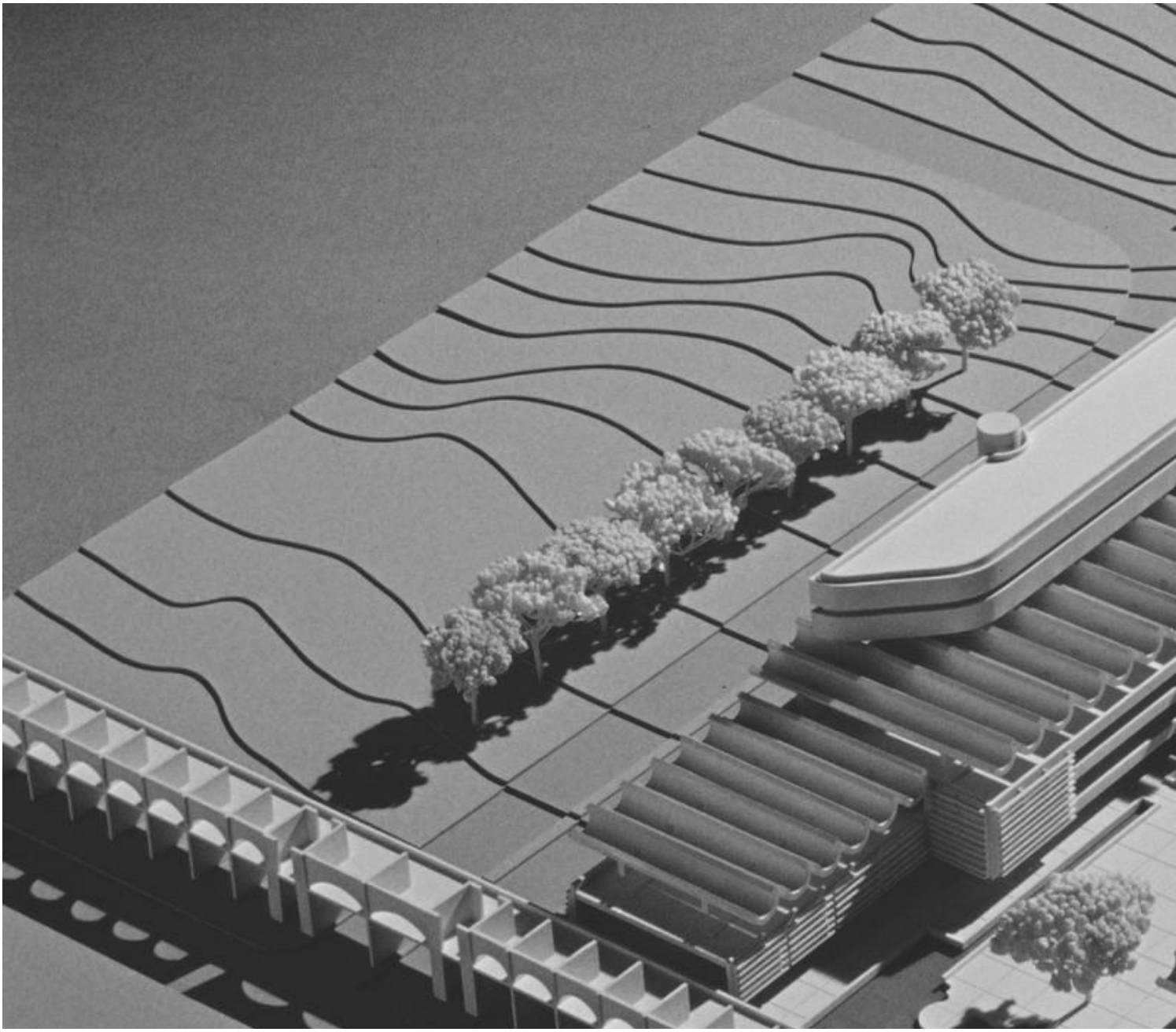
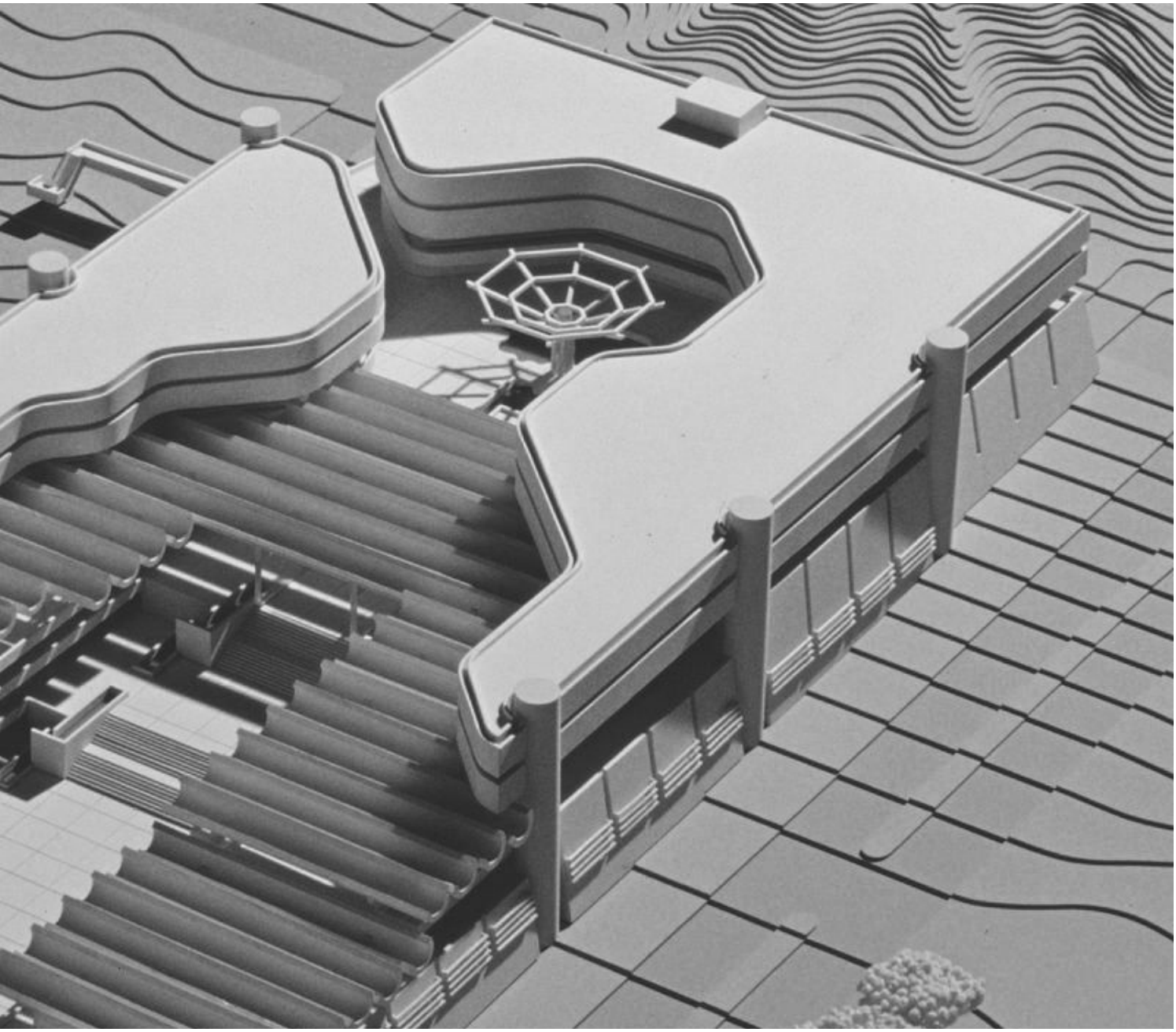


Figure 2.14. Model of the winning design for the Pahlavi National Library International Architectural Competition, Tehran, 1978; von Gerkan, Marg and Partners, architects. Photograph by Bernt Federau, *Model of the Winning Design for the Pahlavi National Library International Architectural Competition, Tehran*, 1978, gmp Architekten archive.

The Iranian state used the same journals directly. In January 1977 *Architectural Record* carried the official announcement of the competition for the Pahlavi National Library, a hundred-thousand-square-metre facility to be built in Shahestan Pahlavi, organized under International Union of Architects rules with a $200,000 prize fund (figure 2.13).[81] Publishing a domestic competition in a leading foreign trade journal was an act of cultural diplomacy before it was an act of procurement: the prestige of Western professional media was borrowed to certify Tehran as a credible centre of architectural patronage. The certification outran the reality.

Shahestan Pahlavi — inaugurated by the Shah in August 1975 on the anniversary of the 1953 coup, and advertised as the largest planned city centre in the world — was halted by the protests of 1978 and never built.[82] The library was to stand in a city that existed on paper. The jury's choice made the point more sharply than any critic could. From roughly six hundred entries, the prize went to Gerkan, Marg and Partners of West Germany — a young practice whose international reputation rested on winning competitions, from Berlin's Tegel Airport onward, rather than on a fixed style: precisely the "no fixed political meaning" section 2.4 identifies in the material itself.

81. "Pahlavi National Library International Architectural Competition Announcement," *Architectural Record*, January 1977, 44.
82. Emami, "Urbanism of Grandiosity," 70.



The firm's own institutional history records what followed. Their next projects outside Europe were completed in Saudi Arabia in 1980. Tehran's was not among them. The design that won an internationally judged competition survives only as a model, photographed once and never built. None of this was a one-way reception of Western ideas, and none of it was a simple export either.

What the exchange produced, by the end of the 1970s, was a generation of Iranian architects who could argue about regional identity in an international register — and a state prepared to pay for the argument in built form. The standing was real, but its reach needs stating precisely: it operated in the register of professional discourse and public justification, not in the allocation of individual commissions. The four projects examined in Chapter 3 were awarded through a family and market network, a competition, demonstrated technical competence, and an architect's own campaign to fund a proposal nobody had requested — and the distance between the standing Iranian architects acquired abroad and the channels through which work was actually distributed at home is a finding of this study rather than an inconsistency within it. Whether the buildings could carry the argument is a different question, and one that only the buildings can answer.

03

Case Studies: Constructing Authority and Spatial Spectacles

3.1 Mapping Concrete Tehran: An Inventory of Pahlavi-Era Architecture

Two residential towers on Elizabeth Boulevard; a white-clad monument at the western gate of the city; a hundred-thousand-seat stadium beside the road to Karaj; a museum sunk into a park at the edge of the Abbasabad hills. To these can be added the ASP and Eskan towers, the Niavaran Cultural Centre, the Management University, the Farah-Abad Stadium, and the thirty-odd residential slabs of Ekbatan. All of them were built in Tehran between 1968 and 1978. All of them were built in reinforced concrete. Taken singly they are conventionally treated as separate episodes in the history of Iranian modern architecture, attributable to individual architects and individual clients; taken together they constitute something else, which is the physical residue of a decade of state-directed modernization and the object of this chapter.

The inventory assembled in Table 3.1 is the point at which the argument of this thesis stops being conducted at the level of policy, ideology and material history and acquires addresses. Chapter 1 traced a developmental state that governed through oil revenue, land reform and top-down planning, and a capital city in which those instruments produced spatial inequality rather than resolving it. Chapter 2 traced the transnational circulation of a material that arrived in Iran already carrying an ideological charge. What follows is the place where the two converge: a set of buildings whose typologies, dates, patrons and locations can be read against one another, and which together make the abstractions of the preceding chapters legible as a geography.

Table 3.1 — Typological Classification of Pahlavi-Era Concrete Projects in Tehran

Projects	Typology	Architect (construction Year)
Saman Towers*	High-Rise Residential	Abdol-Aziz Farmanfarmaian (1968-1970)
Shahyad Tower*	Symbolic & Civic Monument	Hossein Amanat (1971)
Aryamehr Sports Complex*	Sports Infrastructure	Abdol-Aziz Farmanfarmaian with SOM (1974)
Tehran Museum of Contemporary Art* (TMoCA)	Cultural Institutions	Kamran Diba (1977)
Farah-Abad Stadium	Sports Infrastructure	Jahangir Darvish (1973)
Management University	Educational Infrastructure	Nader Ardalan (1973)
ASP Towers	High-Rise Residential	Moshe Bashan (1976)
Niavaran Cultural Centre	Cultural Institution	Kamran Diba (1978)
Eskan Towers	High-Rise Residential	Jordan Gruzen (1978)
Ekbatan Housing Complex	Mass Residential	Rahman Golzar (1970-1978)

Table 3.1. Typological classification of Pahlavi-era concrete projects in Tehran. Compiled by the undersigned.
*: Selected case studies

Ten projects, four typological families, one material. The table is deliberately not restricted to the four buildings examined in detail below, because the analytical value of a case study depends on the field it is drawn from: Shahyad tower reads differently once it is placed alongside the Farah-Abad Stadium and the Management University, and the Saman Towers read differently once ASP, Eskan and Ekbatan are visible in the same frame.

That such a field could exist at all rested on an industrial precondition established a generation earlier. As Amir Bani-Masoud notes, "The establishment of a cement factory in Rey in 1933 significantly increased the availability of concrete, enabling Iranian modernist architects to adopt reinforced concrete for upper- and middle-class housing and to experiment with circular forms, wide spans, cantilevers, asymmetrical compositions, large terraces, expansive windows, and open plans."[1] What is easily missed in this account is that the factory was not an isolated industrial event. Rana Habibi, as a researcher and lecturer in urban design at the Faculty of Built Environment at Breda University, lists it among a tightly clustered sequence of state measures: "the obligatory registration of documents and properties in 1926, the uniform dress code for men announced in 1929, the demolishing of the city's old fortifications, the urban developments of Tehran westward in 1932, the opening of a cement and textile factory in Rey in 1933, the founding of the Bānk-e Melli (the National Bank) and Tehran University in 1934 and, to mention what implemented one of the most radical shifts in local customs, the women's unveiling edict of 1936."[2]

Cement thus enters Iranian modernity in the same bundle as the national bank, the national university, the registration of property and the regulation of dress. The domestic capacity to produce concrete was not a market response to architectural demand; it was one instrument among several through which the state proposed to remake the population, and it belongs to the same programme as the others.

The demolition in that list matters as much as the factory. Concrete Tehran did not rise on empty ground but on ground that had been emptied, and the emptying was itself a modernizing act. As Talinn Grigor argues, this period of modernization "was characterized by the tension between destruction and construction"[3] a formulation that Asma Mehan has developed into a full account of Reza Shah's capital. Asma Mehan describes "the strategy of Tabula Rasa as a utopian blank slate upon which a new Iran could be conceived over again"[4] as the governing logic of urban modernization between 1925 and 1941, its first symbolic act being the removal of the city's fortifications. Contemporary observers registered the violence of the process without much difficulty.

Ernst Herzfeld, a pioneering German archaeologist, philologist, and Iranologist, wrote in 1932: "Everything we see is a methodic destruction. It is a system of ruining established authorities of old, without replacing them with anything at all. The result is vacuum. One day consequences will appear."[5]

1. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 80.
2. Habibi, *Modern Middle-Class Housing in Tehran*, 27.
3. Grigor, *Building Iran*, 106.
4. Mehan, "Tabula Rasa Planning," 210.
5. Ernst Herzfeld, 1932, cited in Mehan, "Tabula Rasa Planning," 216.



Figure 3.1. Institute for Iranian Contemporary Historical Studies, *Construction of the Ministry of Finance on the Ruins of the Qajar Palace, Tehran,* 1937, photograph by Ali Khadem.

Herzfeld's remark is a private judgement rather than an analysis, but it names precisely the condition that the Pahlavi II inventory would later occupy.

Photographs of the period register the sequence with unusual clarity: the new block frequently stands complete behind the older fabric still being cleared, so that removal appears less as preparation for building than as the tidying-up that followed it. Mehan's own conclusion draws the line forward explicitly, arguing that the tabula rasa produced under the first Pahlavi ruler "transformed the city as the potential site for the construction of utopian projects during the second Pahlavi era."[6] The buildings catalogued here are the projects she has in mind. Read against that background, the inventory is also a negative record: a map of Pahlavi II concrete is simultaneously a map of what the state had already decided the city could do without.

What that phrase covers is legible in the city's own photographic record — a public space organized on principles the inventory abandons entirely: enclosed, low, uniformly arcaded, turned inward around water rather than outward towards a road.

Architecture in this framework is never merely expressive. In Grigor's formulation, "architecture was not only a symbol of progress and modernity, but also a means to those ends."[7] The question the inventory poses is therefore not what these buildings represented but where the means were applied, and to whom they were made available.

Mapped, the inventory resolves into a pattern that has less to do with architectural intention than with infrastructure. The oil price rises of the early 1970s, As Azadeh Mashayekhi, an Iranian-born architect, urban planner, and lecturer at University College London

6. Mehan, "Tabula Rasa Planning," 218–19.
7. Grigor, *Building Iran*, 13.



Figure 3.2. Smithsonian Institution, National Anthropological Archives. *Meydan-e Toupkhaneh, Tehran, 1890.* Photograph by Antoin Sevruguin.

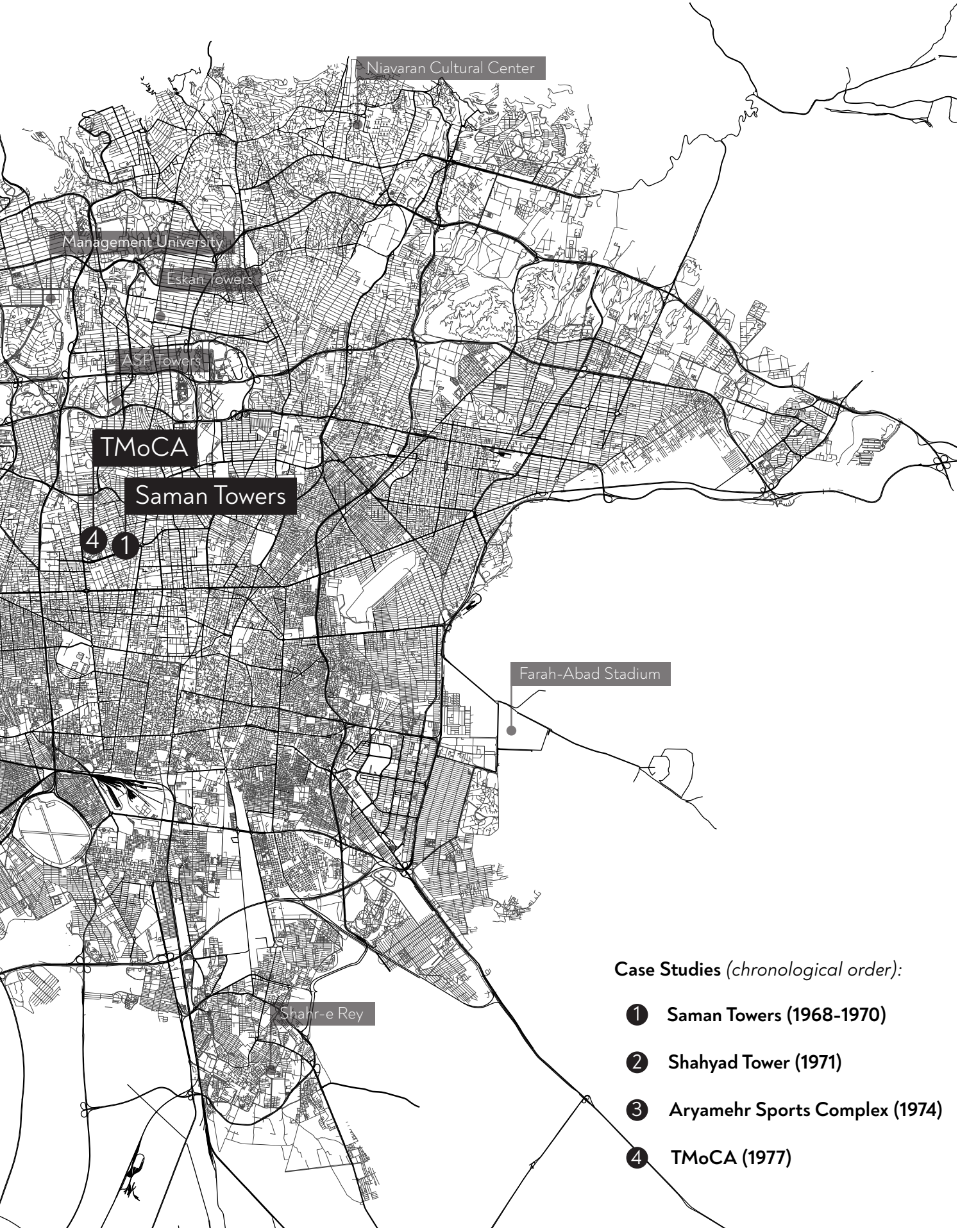
(UCL), observes, positioned Iran among the world's twenty largest economies and "brought confidence for the state to initiate large-scale urban projects,"[8] while Tehran's population rose from 2.7 million in 1966 to 4.5 million a decade later.

That capital was not distributed evenly across the metropolitan area. Two motorways structured the city's growth, and Mashayekhi's account of them is worth quoting at length because it supplies the logic that the map otherwise only illustrates:

8. Mashayekhi, "The 1968 Tehran Master Plan," 18.



Figure 3.3. Inventory of major reinforced-concrete buildings and urban projects in Tehran during the Pahlavi II period (1941–1979). Case studies are highlighted and numbered chronologically. Map by the undersigned.



Case Studies *(chronological order):*

1. **Saman Towers (1968-1970)**
2. **Shahyad Tower (1971)**
3. **Aryamehr Sports Complex (1974)**
4. **TMoCA (1977)**

"The north–south Vanak Highway connected the rich suburbs in the north to the centre and the international airport, while the four-lane Karaj Highway connected the industrial town of Karaj 40 km west of Tehran to working-class suburbs and different factories in the west to the airport and city centre. The two motorways directed urban growth towards the north and the west and transformed Tehran into a car-centric city. Two different types of urban activities were located along these two highways which produced a new form of duality in the city. For example, the Hilton Hotel, the international exhibition centre and luxury residential condominiums were located along the Vanak Highway; whereas car factories, working-class neighbourhoods, sport facilities and football stadiums were built along the Karaj [Highway]."[9]

Set the inventory against this description and the distribution ceases to look accidental. The high-rise residential projects and the cultural institutions cluster along the northern and central corridor, in the districts where land values were highest and where the state's own planning instruments had guaranteed their continued rise. The sports infrastructure and the largest mass-housing scheme sit on the western axis, out towards Mehrabad and Karaj. Shahyad occupies the most telling position of all, standing at the western entrance to the city — the threshold between the two, and the first structure encountered by anyone arriving from the airport. Concrete, in other words, was not distributed across Tehran; it was distributed along two corridors that carried opposite social contents, and the typologies sort themselves accordingly.

This sorting was prescribed rather than merely permitted. The 1968 master plan organized the future city into neighbourhood units of three to five thousand people "classified based on their level of income"[10] villas with gardens, swimming pools and tennis courts in the high-income north; high-quality apartments with parks and cafés for middle incomes; densely packed apartment blocks in the south and south-west. Mashayekhi's assessment is unambiguous — the plan's approach "had to do more with a technocratic and architectonic approach to urban planning with a rational reordering of the urban fabric and society, while containing no vision of social equality,"[11] and its segregated units, linked by motor ways, became "a dominant pattern of Tehran urban development, creating class-segregated suburbs."[12]

Section 1.5 described a capital in which street widths narrowed steadily from north to south and in which the skyline itself announced social position. The inventory is where that description acquires its instruments: the plan supplied the zoning, the highways supplied the access, oil supplied the capital, and concrete supplied the means of construction. What the map records is the built precipitate of all four. Within that geography the inventory spans four functional families, and each corresponds to a distinct claim the state was making. High-rise residential development answered a housing market rather than a housing need; symbolic monuments addressed the nation and its history; sports infrastructure addressed an international audience; cultural institutions addressed a domestic elite and a global art world simultaneously. The residential family is the largest, and the one with the longest prehistory.

9. Mashayekhi, "The 1968 Tehran Master Plan," 19.
10. Ibid., 17.
11. Ibid., 17.
12. Ibid., 23.

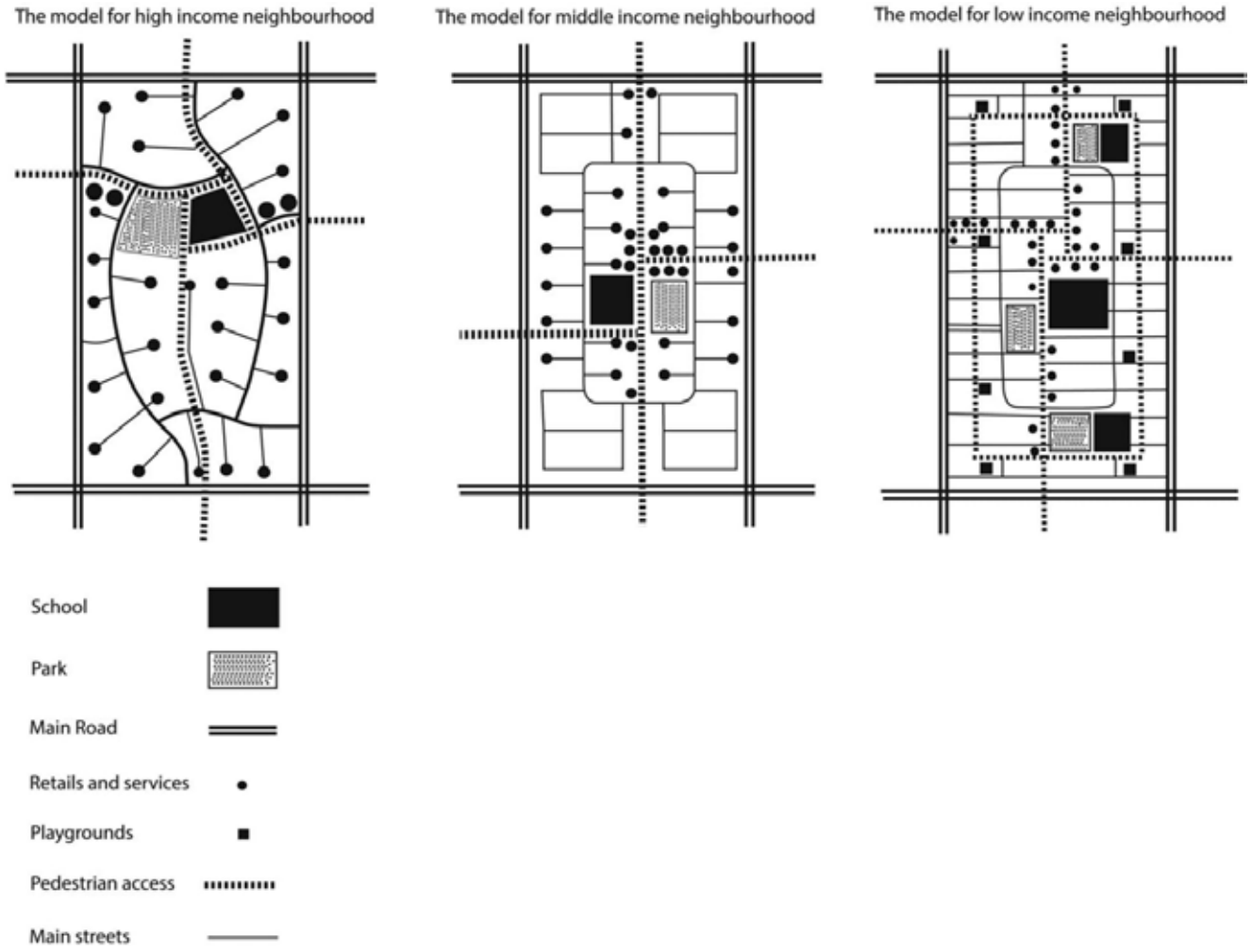


Figure 3.4. Different neighborhood unit schemes proposed by the 1968 Tehran Comprehensive Plan for different income groups. Reproduced from Mashayekhi, "The 1968 Tehran Master Plan," fig. 7; compiled from *Honar o Me'mari* [Art and Architecture Journal], no. 5 (1970).

As Bani-Masoud states, "By the mid-1940s, apartment houses that catered to tenants of various incomes began to be built in Iran in response to a wave of urbanization and the increase in city land value. At the time, Tehran was the city in Iran that had the highest population of people living in rental apartments."[13] What began as a response to land values became, two decades later, a preferred idiom of state self-representation. Farshid Emami, a historian of Islamic, art architecture and an associate professor of Art History at Rice University, observes that "The Shah's fascination with high towers is an obvious sign of his penchant for visible signifiers of modernity. During the 1970s, high-rise apartment buildings – as bold indicators of modern urban life – were gradually transforming the urban landscape of north Tehran, and constituted, in effect, the main landmarks of the city."[14]

The formulation is precise and slightly disorienting in a city that also contained Shahyad, a stadium for a hundred thousand people and a national museum, the buildings functioning as landmarks were speculative apartment blocks. The distinction between monument and investment, which the four typologies of the table appear to hold apart, was in practice unstable.

Chronology reinforces the point. Every project in Table 3.1 falls within the eleven years between 1968 and 1978 — the decade that begins with the implementation phase of the master plan and ends on the eve of the revolution. This is not the signature of a style maturing but of a funding event, and it registers in the table as a compression that no account of architectural influence alone can explain. The single largest project of the period, moreover, was never built at all: "The 1968 master plan proposed a new one, called 'Shahestan' after the Royal Family, in the vast 544 ha undeveloped areas of Abbas-Abad in the north of the historic centre. The project was designed by American planner Jaquelin Taylor Robertson and UK architecture and planning firm Llewelyn Davies.

13. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 93.
14. Emami, "Urbanism of Grandiosity," 75.

The core of the plan was the creation of a massive urban square to be known as 'Shah and Nation Square', which would match in size with Tiananmen Square in Beijing."[15] The inventory should therefore be read as the surviving fraction of a much larger ambition, and its typological range as the range of what the state managed to finish before it ran out of time.

Not everyone working inside the period accepted that an accumulation of individual projects amounted to a city. Writing in Honar o Me'mari in 1972 — the same journal that supplied much of the professional documentation used throughout this chapter — Kamran Diba objected in terms that read almost as a critique of the inventory method itself: "Nowadays everyone talks about how mis-shapen buildings in Tehran have become. It seems that in our modern culture, the architecture of a single building is more important than the quality of the urban environment. However, the problem in Tehran is one of fabric anomaly and disorder. Tehran has a lack of environmental design. We need to introduce a responsible mechanism for controlling quality in the urban environment. The single architects and individual projects can't guarantee the quality and harmony of the urban structure."[16] This is a contemporary professional intervention rather than a retrospective judgement, published while several of the projects listed here were still under construction and by an architect who would shortly contribute two of them. Its value lies in confirming, from inside the field, that the disjunction between comprehensive planning and object-by-object production was visible at the time and not only in hindsight — the same disjunction that section 2.4 identified through Madanipour's account of development agencies.

Diba's later recollections, cited in Chapters 1 and 2, describe that fragmentation from the vantage of a career largely conducted abroad; the 1972 statement records it as a live professional complaint.

This inventory is not intended as an exhaustive catalogue of every reinforced-concrete structure constructed during the Pahlavi period. It provides an analytical framework through which representative projects can be identified and compared, allowing the relationship between material, technology, labour, architecture, and ideology to be examined across different building typologies. The selection of the four case studies follows two criteria: their architectural and historical significance within the Pahlavi modernization project, and the availability of sufficient primary and secondary documentation to support a detailed socio-material analysis. On that basis, four projects have been selected for detailed investigation: the Saman Towers, the Shahyad Tower, the Aryamehr Stadium, and the Tehran Museum of Contemporary Art. Together they demonstrate the multiple roles that reinforced concrete assumed during the Pahlavi period — as the material of residential urbanization, national representation, state-sponsored infrastructure, and cultural production.

Read together, these four projects also reveal an important division within Pahlavi-era modernization itself. As Farshid Emami argues, the bureaucratic design approach embodied in the Shahestan Pahlavi proposal "came at the expense of a more liberal and culturally sensitive modernism, promoted by the Queen and the architects attached to her court."[17]

15. Mashayekhi, "The 1968 Tehran Master Plan," 23–24.
16. Diba, "Environmental Architecture Issues," 18–19, cited in Habibi, *Modern Middle-Class Housing in Tehran*, 180.
17. Emami, "Urbanism of Grandiosity," 71.



Figure 3.5. The Shahestan master plan. Source: Azadeh Mashayekhi (2019), fig. 12; reprinted from Llewelyn-Davies International (1976), vol. 2.

That distinction is reflected in the projects examined here. State-driven and market-driven developments alike embodied a centralized and technocratic vision of modernization, while the cultural institutions associated with Queen Farah's patronage — including the work of Kamran Diba, Nader Ardalan, and Hossein Amanat — sought to reconcile modern architectural language with references to Iranian history, landscape, and architectural traditions. The four case studies are distributed across both sides of this division, and the sections that follow take them in the order in which they were begun rather than in order of significance. Through them, concrete emerges not simply as a structural technology but as a socio-material agent that mediated the relationship between architecture, labour, politics, and urban transformation in Tehran during one of the most consequential periods of the city's modern development.

3.2 The Saman Towers: Vertical Living and the Concrete Utopia

"The purpose of creating these buildings is comfortable living for the affluent classes."[18] The sentence belongs to Ahmad-Ali Ebtehaj, chairman of the board of the Saman Iran company, and he spoke it at the groundbreaking ceremony held on one of the last days of June 1968 in the presence of Prime Minister Amir-Abbas Hoveyda, Minister of Development and Housing Hushang Nahavandi, and the director general of the central bank.[19]

What is striking is not the content of the statement but its register. There is no defensiveness in it, no appeal to a broader housing need that the project might eventually serve. At Shahyad, three years later, the ideological work of concrete would be conducted through the vocabulary of nation, dynasty and civilisational continuity; here it was conducted through the vocabulary of the market, and stated as policy in front of the prime minister.

If the case studies in this chapter are read as a sequence of arguments about what reinforced concrete was for in Pahlavi Iran, the Saman Towers supply the least mediated answer. The project belongs unambiguously to the technocratic and market-facing side of the division sketched at the end of the previous section. Neither of its two principals stood outside the state apparatus, however — and this is where the conventional public/private distinction begins to dissolve. Ahmad-Ali Ebtehaj was the brother of Abolhassan Ebtehaj, the head of the Plan Organization whose reforms had reconstituted the entire framework within which Iranian architects and contractors worked. Abdol-Aziz Farmanfarmaian, in an article surveying the transformation of Iranian architecture between the 1950s and the revolution, identified 1953–54 as the decisive turning point and named Abolhassan Ebtehaj as its author: "[Ebtehaj] reformed the worn-out system of the past from the top down. He changed the criteria and the manner of operation. He transformed the state's dealings with architects and contractors, the way projects were awarded and tenders conducted, and altered altogether the state's

18. Yasamin Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi: Sargozasht-e Apartman-ha-ye Saman dar Asnad-e Dowran-e Pahlavi" ["Standing with the Flag of Progress: The Story of the Saman Apartments in the Documents of the Pahlavi Era"], *Dalan Journal*, Winter 2020, 52. Translated from the original Persian by the undersigned.
19. *Khandaniha* [Readings], "Avvalin Kolang-e Apartman-ha-ye Saman be Zamin Zadeh Shod" ["The First Groundbreaking of the Saman Apartments"], 28, no. 78 (1968): 49, cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 55. Translated from the original Persian by the undersigned.

view of the process of development and construction in the country."[20] Farmanfarmaian himself, French-trained, founder of AFFA and by the mid-1970s head of the largest architectural and engineering practice in the country, was co-author with Victor Gruen of the very master plan that governed Tehran's growth after 1968.[21] The tower on Elizabeth Boulevard was therefore designed by the man who had drawn the plan for the city it stood in, and commissioned by the brother of the man who had built the institutional machinery that made such practices possible. Saman is not an instance of private enterprise operating alongside the developmental state; it is the developmental elite operating in the register of private accumulation.

What made that operation legally possible was a piece of legislation rather than a piece of engineering. The Apartment Ownership Law, ratified in Esfand 1343 (early 1965), for the first time distinguished in Iranian law between the privately held and jointly held portions of a multi-unit building, and Saman is generally identified as the first apartment project undertaken after its passage.[22] The significance of that sequence is easy to underestimate. Vertical construction had been technically feasible in Tehran for some time; what the law supplied was the instrument that converted stacked floor area into separately alienable title. Set against the spatial stratification traced in section 1.5, the point sharpens considerably.

The 1968 master plan imposed rigid service boundaries on the city, and the price of inner-city real estate rose by an average of 250 per cent between 1966 and 1971; rather than invest in industry, as Azadeh Mashayekhi observes, "wealthy Tehranis sought a way to reproduce their wealth in a faster and more reliable way: land and housing speculation."[23] A reinforced-concrete frame twenty-two storeys high on a plot of a few hundred square metres is, under those conditions, a device for multiplying saleable title on land whose scarcity the state's own planning instrument had guaranteed. Concrete here is not primarily a symbol. It is a multiplier.

The technical claim advanced on the project's behalf was prefabrication. Saman is usually credited as the first building in Iran to employ precast concrete panels, supplied by a factory operating under licence from Schokbeton, a Dutch manufacturer[24], and the daily press seized on the fact with an enthusiasm that had little to do with construction technique. Ettela'at reported: "The prefabricated elements, used for the first time in the Saman Iran apartments, are in use by builders and architects throughout the world, such that today all the great and modern buildings of Europe and America are constructed with precast concrete elements."[25]

20. Abdol-Aziz Farmanfarmaian, "Tahavvol-e Me'mari dar Iran dar Salha-ye 1330–1357" ["The Transformation of Architecture in Iran, 1950–1978"], *Me'mar [Architect]*, no. 25 (2004): 75–77, quoted in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 53. Translated from the original Persian by the undersigned.
21. Mashayekhi, "The 1968 Tehran Master Plan," 15.
22. Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 53. Translated from the original Persian by the undersigned.
23. Mashayekhi, "The 1968 Tehran Master Plan," 18.
24. Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 59.
25. *Ettela'at*, November–December 1969; cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 59. Translated from the original Persian by the undersigned.



Figure 3.6. Unidentified photographer. Queen Elizabeth Boulevard, Tehran, 1971. Photograph. Information Ministry Press.

The same article continued: "Because they are made in the factory they take novel and beautiful forms and eliminate the difficulties of pouring concrete on the building site. The colour and type of these elements, subjected to various tests, are of the utmost beauty and solidity, and they do not deform in any way in the face of natural or artificial agents."[26] Read as engineering, this is unremarkable. Read as rhetoric, the passage does something quite precise: it establishes contemporaneity by geographical association. The panel is significant because Europe and America use it. Technical description here is a claim about where Iran stands, and the newspaper's readership is being invited to locate the country on a map of modernity rather than to evaluate a cladding system. That claim acquires a sharper edge when set against the material history reconstructed in section 2.3.

Adrian Forty's account of precast concrete in postwar Europe describes a technology deployed to accelerate construction, reduce dependence on specialist trades, and address the political imperative of building a stable welfare consensus between capital and labour — the medium, as he puts it, of the Cold War.[27] In the Soviet Union, in Britain, in France, the panel arrived attached to mass housing. In Tehran it made its debut in a building whose client had announced at the groundbreaking that it was intended for the affluent. The same technology, carrying the same connotations of industrial modernity, was inverted in its social application: the instrument of collective provision elsewhere became, in Iran, the instrument of distinction. This inversion is arguably the single most telling fact about Saman, and it is not incidental to the wider argument of this thesis.

26. *Ettela'at*, November–December 1969, cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 59.
27. Forty, *Concrete and Culture*, 157, 159.

Iran imported the material and the machinery of postwar European modernism without importing the redistributive political settlement that had produced them. Speed followed from the panel, and speed was itself advertised. Ebtehaj claimed that a floor was completed every ten days, a figure that recurs in the promotional language surrounding the project.[28]

The parallel with the specifications Ettela'at printed beside the Aryamehr Stadium's opening, discussed in section 3.4, is direct: in both cases duration is converted into evidence, and the reader of the daily press is asked to accept the calendar as proof of national capacity. But prefabrication does not merely accelerate a building; it redistributes where skill resides in the process of making it. Panels cast under factory conditions relocate craft from the site to the plant, and reduce the site crew to a workforce engaged in positioning and connection rather than in forming and finishing. This is precisely the stratification that the present study has traced from Chapter 1 onward — the widening separation between an engineering and managerial stratum trained in or by the West and a mass of low-skilled labour drawn from the countryside. Kamran Diba's recollection of that workforce, quoted in full in section 1.4, describes labourers displaced by land reform who acquired the trade on the site itself, among them men from Baluchestan and Pakistani Balochistan with no command of Persian.[29]

It has to be said plainly that no source consulted for this study documents who built the Saman Towers. The contemporary press named the client, the architect, the prime minister who attended the ceremony, the licensing arrangement behind the panels and the number of days required per floor; it did not name, count, describe or photograph the workforce. Later scholarship, working from that same press, has inherited the omission. This absence should not be treated as a gap in the archive to be regretted and passed over. It is itself a finding, and a consistent one: the documentary apparatus of Pahlavi modernization was configured to record technology, capital and patronage, and to leave labour outside the frame. The building's own historiography reproduces the hierarchy the building embodies.

Inside, the social programme announced at the groundbreaking was translated into circulation. Each tower was equipped with three lifts, an arrangement the press described in some detail: "For ordinary use, in each of the two buildings there are high-speed lifts: two of them for the comings and goings of the apartments' residents, with a capacity of twelve persons, and a third, of greater capacity, for goods and servants."[30] The distinction between "residents" and "servants" is drawn without comment, as an ordinary specification alongside capacity in persons. It is carried through into the plans, where a servant's room with its own lavatory and bathroom sits behind the kitchen of the larger unit types.[31] The building thus imports a wholly modern spatial and technical vocabulary — the tower, the panel, the lift, the shopping podium — while carrying into it, unchanged, the domestic hierarchy of the elite household it was built to accommodate.

28. Ahmad-Ali Ebtehaj, cited in *Khandaniha* [Readings] 28, no. 78 (1968): 49; cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 60. Translated from the original Persian by the undersigned.
29. Diba, interview by the undersigned, June 4, 2026.
30. *Khandaniha* [Readings] (1970): 100–102, cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 56. Translated from the original Persian by the undersigned.
31. Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 63.

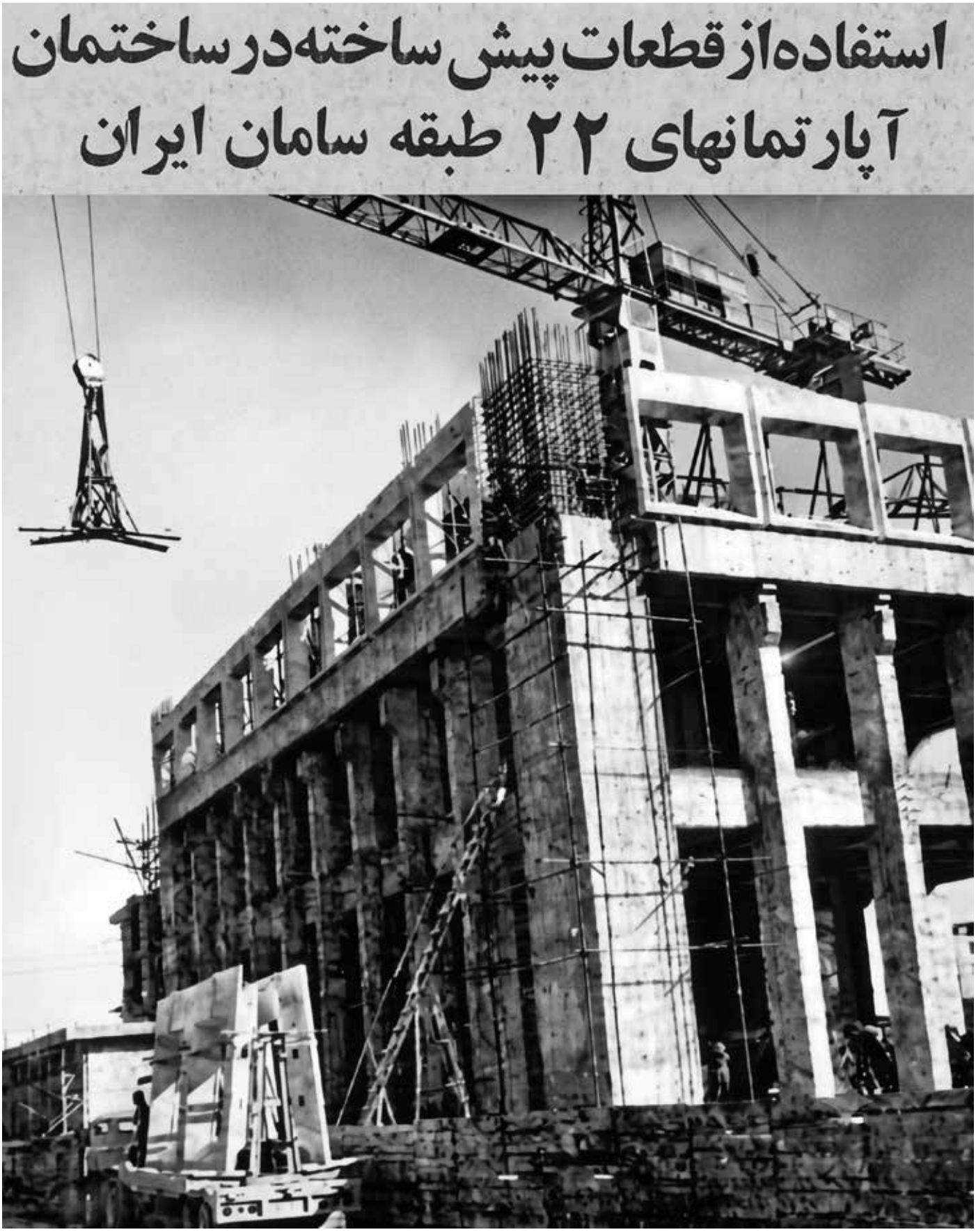


Figure 3.7. Use of prefabricated components in the construction of Saman Iran's 22-story apartment buildings. Newspaper clipping from *Ettela'at*, November–December 1969; reproduced from Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 59.

There is a longer Iranian genealogy for this arrangement, and it runs directly through the family that occupied the building. Mark Crinson's account of the Anglo-Persian Oil Company's Abadan, quoted by Pamela Karimi, describes a settlement in which "Housing, like the company's employees, was divided into three classes: fully furnished accommodation for British staff and the few senior Persians; partly

furnished accommodation for non-European junior staff; and unfurnished facilities for wage-earning labor."[32] The most vivid indictment of that arrangement was written by Manouchehr Farmanfarmaian, who had worked as an engineer for the company: "The workers lived in a shantytown called Kaghazabad, or Paper City, without running water or electricity, let alone such luxuries as ice boxes or fans. … In the British section of Abadan there were lawns, rose beds, tennis courts, swimming pools, and clubs; in Kaghazabad there was nothing—not a tea shop, not a bath, not a single tree. The tiled reflecting pool and shaded central square that were part of every Iranian town, no matter how poor or dry, were missing here."[33] Manouchehr Farmanfarmaian was the brother of the architect of the Saman Towers, and he bought an apartment in them. In his memoirs he recalls that "As it happened, Rashid and I had each bought an apartment on the same floor of the twin Saman towers on Elizabeth Boulevard."[34] The juxtaposition is not offered here as personal inconsistency. Its interest is structural. A member of the Iranian elite who had seen colonial spatial segregation at close range, named it with precision, and understood exactly what a landscape of lawns and swimming pools set against a settlement without a single tree signified, subsequently purchased a unit in a building whose lifts separated residents from servants and whose plans allocated the latter a room behind the kitchen. The hierarchy that had been legible as colonial when the British imposed it at Abadan became invisible as modern when Iranians reproduced it vertically in north Tehran. Concrete did not create that hierarchy. It gave it a new and more efficient geometry. The class character of the project was contested at the time, and the terms of the contest are instructive. Writing at the moment of the towers' opening, Ali-Asghar Amirani, editor of *Khandaniha*, set out the objection in order to dismiss it: "The single fault they find with the Saman buildings — and one which is in fact among their merits — is that they ask why these apartments have been made so modern, so well equipped and so luxurious that they belong to the affluent classes alone and others cannot live in them."[35] His rebuttal rested on the payment terms — twenty per cent deposit and the balance in instalments over ten years, secured against the apartment itself — and concluded: "If anyone able to acquire a several-room apartment on ten-year instalments — and that against the mortgaging of the apartment itself — is to be counted among the affluent class, then half the population of this city is affluent and does not know it."[36] The argument is worth taking seriously precisely because it is so weak. Mortgage access in a city where, by 1976, some 22,000 households in the centre and south were living seven or more persons to a room was not a general condition but a narrow privilege.[37]

32. Mark Crinson, cited in Karimi, *Domesticity and Consumer Culture in Iran*, 78.
33. Manouchehr Farmanfarmaian, cited in Karimi, *Domesticity and Consumer Culture in Iran*, 78.
34. Manouchehr Farmanfarmaian and Roxane Farmanfarmaian, *Khun va Naft: Khaterat-e Yek Shahzadeh-ye Irani* [Blood and oil: Memoirs of an Iranian prince], trans. Mehdi Haqiqatkhah (Tehran: Ghoghnoos, 2019), cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 57. Translated from the original Persian by the undersigned.
35. Ali-Asghar Amirani, "Apartman-Sazi va Chand-o-Chun-e An" [Apartment building and its ins and outs], *Khandaniha* [Readings] 31, no. 77 (1971): 7–10; cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 56. Translated from the original Persian by the undersigned.
36. Ibid., 56.
37. Mashayekhi, "The 1968 Tehran Master Plan," 23.

What the passage documents is not the affordability of Saman but the existence, in 1971, of sufficiently widespread public criticism that the country's most-read weekly felt obliged to answer it in print — and the fact that the answer had to invert the developer's own stated intention, since Ebtehaj had described the target market as the affluent classes without hesitation three years earlier. The same press coverage put the towers to a further use, turning a private luxury project into a weapon against state housing policy. One report ran: "While the public sector, after long discussion and much coming and going, is still caught in the toils of administrative regulation and of dithering over building types, prices and the matching of applicants' circumstances to the facilities on offer, in the private sector the Saman Iran company — designer and originator of apartment construction for habitation in the form of fully equipped and luxurious skyscrapers, in implementation of the Apartment Ownership Law — last week completed the fourth of the lower floors of this twenty-two-storey building on Elizabeth Boulevard."[38] A tower for the wealthy is here made to stand as evidence of what the state has failed to deliver to everyone else. The rhetorical manoeuvre is characteristic of the period's press and consistent with the pattern identified in section 3.4: speed and equipment function as self-evident proofs of virtue, and the question of for whom is displaced by the question of how fast. Ebtehaj had in fact promised, in the same groundbreaking speech, that the company would build low-cost apartments in Shemiran and near Mehrabad Airport at no more than three to four thousand rials per square metre; no evidence has been found that these were built.[39] Professional opinion was more divided than the daily press. Nader Khalili, who was at the time working on low-cost rural housing and was among the more consistent critics of state housing policy, judged that private-sector architects had confined themselves to private villas and apartments for the wealthy — and then conceded the quality of the result: "There is no doubt that good examples of residential design exist in the wealthier parts of the city, and the Saman company's apartments are among the finest examples of refined life in residential apartments, lacking nothing in comparison with their counterparts elsewhere in the world."[40] The concession carries the criticism rather than softening it. Khalili's point is not that the building is bad but that the country's best design capacity had been absorbed by the top of the market — a claim about the allocation of professional labour rather than about aesthetics, and one that extends the stratification argument of this thesis upward from the construction site into the profession itself. Sirus Bavar's later verdict operates on different ground: "[The Saman apartments,] though in point of technique and subject they appear new, in point of function are not suited to the collective life of local people, nor are they adapted to the climatic conditions."[41]

38. Amirani, "Apartman-Sazi va Chand-o-Chun-e An," 7–10; cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 60. Translated from the original Persian by the undersigned.
39. *Khandaniha* [Readings] 28, no. 78 (1968): 49; cited in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 56. Translated from the original Persian by the undersigned.
40. Nader Khalili, "Bahs-e Rooz: Me'mari-ye Irani ya Me'mari-ye Farangi" ["Debate of the Day: Iranian Architecture or European Architecture"], *Honar o Me'mari* [Art and Architecture Journal], no. 14 (1972): 42–43, quoted in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 55. Translated from the original Persian by the undersigned.
41. Sirus Bavar, *Negahi be Peydayi-ye Me'mari-ye No dar Iran* [A Look at the Emergence of New Architecture in Iran] (Tehran: Faza, 2009), quoted in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 55. Translated from the original Persian by the undersigned.

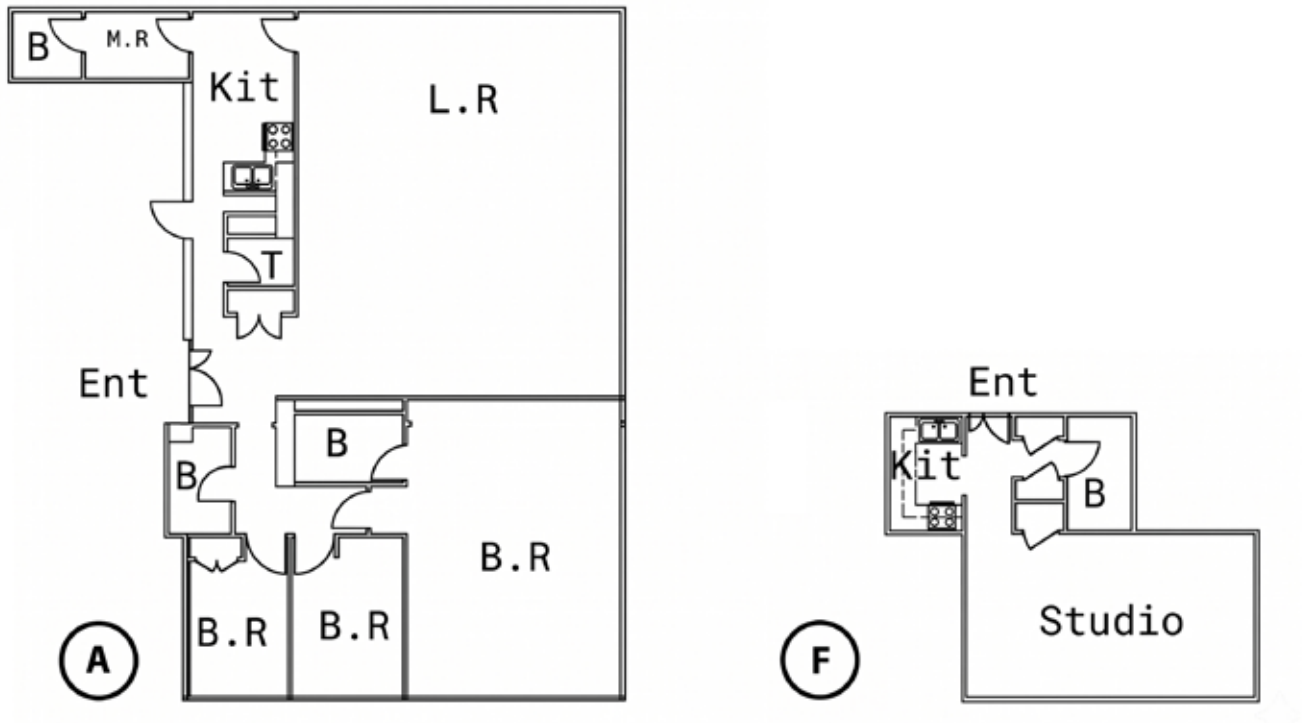


Figure 3.8. Typical Plans A and F from the Saman Collection office. Redrawn by Yasamin Nemat-ollahi; reproduced from Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 62.

Between them, Khalili and Bavar identify the two failures that would define high-rise residential production in Tehran for the following half-century: a misallocation of expertise, and the transplantation of a northern-European environmental model into a semi-arid plateau.

The towers' subsequent history has confirmed the argument rather than reversed it. When the revolution arrived it arrived inside the building: Manouchehr Farmanfarmaian's memoir records the arrest of his brother Rashid by revolutionary guards in his own Saman apartment, watched through the spyhole of the flat across the corridor.[42] Half a century later, according to interviews conducted with long-standing residents, roughly half the units stand empty, their owners having emigrated or the flats never having been transferred.[43] The exterior is frozen by the complex's own management, which prohibits any alteration to the façade and requires that residents installing double glazing replicate the original window profiles exactly; the interiors, by contrast, have been continuously rewritten, with kitchens opened up and the service quarters behind them converted into self-contained units of forty to forty-five square metres.[44]

The building's most explicit inscription of domestic hierarchy has thus been recycled as rental stock — the servant's room surviving the servant, and surviving the regime that took such rooms for granted, in the altered form of a lettable asset.

This is the sense in which the phrase "concrete utopia" needs to be handled with some care. Saman was never utopian in the sense that Ekbatan or the post-war European estates were utopian: it proposed no new form of collective life and made no claim to solve a housing problem. Its utopianism was of a narrower and more durable kind — the belief that a way of living could be imported entire, panel by panel and lift by lift, and that the possession of such a life was itself the content of modernity. The frame outlasted both the belief and the state that sponsored it. What the Saman Towers demonstrate, and what distinguishes them from the three case studies that follow, is that reinforced concrete did its most consequential political work in Pahlavi Iran not when it was made to speak — as it would at Shahyad, at Aryamehr, at the Tehran Museum of Contemporary Art — but when it was allowed to remain silent, and to organise the everyday distribution of persons, services and property without ever being asked to justify itself.

42. Farmanfarmaian and Farmanfarmaian, *Khun va Naft*, quoted in Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 57, 59.
43. Nemat-ollahi, "Istadeh ba Parcham-e Taraqqi," 61.
44. Ibid., 63.

3.3 The Shahyad Aryamehr Tower: Synthesizing Ancient Identity and Modern Aspirations

At the Saman Towers the political content of concrete was economic, domestic and largely unannounced. Three years later and eleven kilometres west, the same material was made to carry an argument about the nation, and the argument was delivered to a global audience on a single evening. On 17 October 1971, at roughly half past six, Mohammad Reza Shah entered an oval square near Mehrabad Airport in western Tehran to inaugurate a forty-five-metre tower built to commemorate the institution of the Iranian monarchy during the celebrations of the 2,500th anniversary of the founding of the Persian Empire.[45]

Its architect, Hossein Amanat, had been born in 1942 and, as Amir Bani-Masoud notes, was "only 24 years old and had previously built almost nothing" when his design was selected in 1966, shortly after he completed his studies at Tehran University's Faculty of Fine Arts.[46] That a regime staking its international legitimacy on a single monument entrusted it to an architect with no completed buildings is not an incidental biographical detail. It indicates what the state wanted from the commission: not the authority of an established practice but a design that could be presented as the unmediated product of Iranian talent — a claim the Shah made explicitly at the inauguration, gesturing towards Amanat before the assembled heads of state. The competition that produced the tower was itself an instrument rather than a procedure. Planning for a commemorative structure had begun in 1960, when it was decided that "a permanent monument like a victory arch at the entrance of Tehran, to be used when foreign heads of state enter the country," would be built.[47] Several commissioned designs failed to win the Shah's approval — one was reportedly rejected as insufficiently monumental — before a national competition was announced in a short column on the front page of Ettela'at on 1 September 1966.[48] Roughly twenty architects, all Iranian, submitted entries. The single explicit constraint stated in the announcement was that the monument's height could not exceed forty-five metres, because of its proximity to the airport.[49] The most consequential parameter shaping Iran's principal national monument was therefore an aviation clearance, a fact worth holding alongside the symbolic readings the building would later attract. When the jury reported to the Shah, its verdict was equivocal: according to the minutes, "None of the designs were befitting for the ideal project, however this design [Amanat's] is closest."[50] The submissions were subsequently taken to the Green Palace at Saadabad, where the Shah examined them in person and gave his approval. The competition, in other words, produced a shortlist; the monarch produced the decision.

45. Mehdi Taheri, "Architectural Patronage and Diplomacy: Shahyad Aryamehr Monument's Funding Model in Support of Iran's Modernisation and Monarchical Legacy," *Iranian Studies* 58 (2025): 467.
46. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 161.
47. Taheri, "Architectural Patronage and Diplomacy," 470.
48. Khashayar Hemmati, "A Monument of Destiny: Envisioning a Nation's Past, Present, and Future Through Shahyad/Azadi" (master's thesis, Simon Fraser University, 2015), 30.
49. "Announcement for the Competition Design for Shahyad-e Aryamehr Monument," *Ettela'at*, no. 12069, September 1, 1966, 1, cited in Hemmati, "A Monument of Destiny," 30–31.
50. "Minutes of the Competition Jury," cited in Hemmati, "A Monument of Destiny," 32.



Figure 3.9. Unidentified photographer. *Hossein Amanat, Shahyad Tower, Tehran*, 1969–1971. Photograph. Farah Pahlavi Official Archive.

What the announcement did not specify was a programme. Amanat has recalled that the brief "did not say what was wanted, and so all that is inside Shahyad's structure and its underground was my idea and I suggested this."[51]

Since the foundations had to sit five metres below grade, he used the excavation to propose a museum and a sequence of subterranean "Halls of History" or "Dynasties," each devoted to a period of Iranian history — an idea he attributes partly to the Arc de Triomphe, which struck him as a monument whose structural conception left it with almost no interior.[52] Members of the jury later told him this was among the reasons his entry won.[53] The halls were subsequently cancelled by the Celebrations Council; Amanat attributes this to internal political struggles within the organisation and to fears of cost overruns and accusations of embezzlement.[54] These recollections come from interviews conducted more than four decades after the events and should be weighed as such, but the pattern they describe is consistent with the one

51. Hossein Amanat, interview by Khashayar Hemmati, Vancouver, December 13, 2014; cited in Hemmati, "A Monument of Destiny," 88.
52. Amanat, interview, quoted in Hemmati, "A Monument of Destiny," 88–89.
53. Hemmati, "A Monument of Destiny," 33.
54. Amanat, quoted in Hemmati, "A Monument of Destiny," 89.

traced in section 2.2, where Kamran Diba redefined the brief for the Niavaran commission and had the revision accepted. In both cases the architect, not the patron, supplied the institutional content of a state project — and in both cases what the state actually built was a partial version of what the architect proposed. The monument's name records the same slippage between empire and monarch. Correspondence within the Celebrations Council in the mid-1960s refers to the projected structure as Darvazeh-ye Koroush (the Gate of Cyrus) and later as Darvazeh-ye Shahanshahi (the Imperial Gate).[55] The official name was settled before the competition was announced: Bahram Farahvashi, a scholar of ancient Iranian languages attached to the Council, combined shah with yad, remembrance, while Aryamehr — Light of the Aryans — was a title granted to Mohammad Reza Shah by parliament in 1965.[56] The full name therefore translates as something close to "remembrance of the Shah Aryamehr." A structure first conceived as a gate dedicated to Cyrus was completed as a memorial to the living king. Nothing in the building's form announces this; the shift occurs entirely in language, and it is the clearest available evidence that the monument's ostensible subject — twenty-five centuries of Iranian civilisation — had been quietly narrowed to its reigning representative. The project's official architectural rationalisation appeared in *Honar o Me'mari*, the professional journal edited by Abdol-Hamid Eshragh and published in a tri-lingual format — Persian, French, and English — from offices in Tehran, Paris, and London.[57]

The Shahyad feature, carried unsigned across issues 12–13 and reproducing Amanat's own drawings, opens with a statement of intent: "Shahyad Aryamehr, The monument to the 2500th anniversary of the foundation of the Iranian Empire is to commemorate the Iranian civilization and culture throughout the ages. It strives to present a portrait of Iran's significant past dynasties and their contribution to the world history."[58] The promise of a portrait of "past dynasties" is precise, and it refers to something specific: the underground halls that were never built.

The published programme and the executed building are not the same object, and the discrepancy has gone largely unremarked because the halls were cancelled before anyone outside the Council could miss them. Where the executed building did deliver a dynastic portrait was in its form, and the journal made that case visually rather than in prose. A single page sets photographs of the tower's own vault beside four historical precedents: the Taq-e Kasra at Ctesiphon, the eleventh-century Toghrol Tower at Rey, the eighteenth-century dome of the Amin al-Dowleh caravanserai at Kashan, and the Vakil Mosque at Shiraz.[59] Bani-Masoud's account adds the Iranian chahar-taq and the Persian garden to the list, describing the monument as modelled on the chahar-taq concept and set on a traffic rotary whose fountains and planting reflected traditional Iranian gardens.[60]

55. Hemmati, "A Monument of Destiny," 28.
56. Ibid., 28.
57. Sedighi, "Megastructure Reloaded," 5.
58. "Shahyad Aryamehr," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 13. Published in English in the original.
59. Ibid., 13.
60. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 162.



Figure 3.10. Unidentified photographer. *H.I.M. Mohammad Reza Pahlavi, Aryamehr Shahanshah of Iran, Laying the Inscribed Foundation Plaque of Shahyad Aryamehr*, Tehran, November 2, 1967. Photograph. Source: Hossein Amanat website.

The selection repays attention. Sassanid, Seljuk, Safavid and Qajar precedents are laid out in sequence, spanning exactly the "significant past dynasties" the English caption invokes — and the sequence terminates, implicitly, in the building that assembles them. The synthesis for which Shahyad is now routinely praised was not a later critical reading imposed on the monument; it was the claim the project made about itself, published while the concrete was barely dry.

Geometry carried the synthesis into buildable terms. In the tradition of Persian architectural geometry, the passage from straight lines in plan to broken surfaces and then to curves in elevation supplies the structural logic on which Iranian domes and arches are built, and the tower applies that logic with unusual literalness: the diagonal ribs of the main vault, twisting and fracturing across the soffit, reconstruct the intersecting networks of traditional rasmi-sazi. The underlying discipline is modular. As the journal explains, "the main facade of the Shahyad Tower is based on four primary squares, each measuring 21 × 21 meters. The main arch is centered within the middle square, while the extension of the pillars follows the diagonals of the two flanking squares. The apex of the broken arch (the crown of the main vault) is anchored at the center of the fourth square."[61] A three-metre module recurs throughout the critical dimensions, horizontally and vertically, and governs the placement of the thick reinforced-concrete rings that internally brace the four piers. The principal arches are conic sections defined by explicit mathematical equations, which allowed cross-sections of the volume to be generated at any height and made the double-curvature surfaces buildable to a tolerance that would otherwise have been unattainable. Those equations were resolved by machine, and by whom is the point. English civil engineer Duncan Michael of Ove Arup — the firm then known for its work on the Sydney Opera House — recognised, in Bani-Masoud's account, "that the structure was too complex to calculate manually and thus he used a computer to aid in the structural design."[62] The coordinates of the exterior surface were then handed to the Industrial Management Organization of Iran, which computed the bounding volume of every cladding stone. The journal describes the sequence: "The transition from mathematical models to the physical monument required a level of technical precision unprecedented in Iran. The coordinates for the various points on the exterior surfaces, previously derived from the arch formulas, were entrusted to the Industrial Management Organization of Iran. Their task was to calculate the boundary volumes for each of the stones forming the complex, warped surfaces (chap-dar) of the Shahyad facade — a task they completed with remarkable speed. The numerical data provided by the computers were then converted into large-scale wooden templates (shablons). The specific form and volume of each stone were first crafted in wood and provided to master stonemasons."[63]

The division of labour described in that paragraph is the thesis's central social argument rendered as a construction sequence. Structural calculation was performed abroad by a British consultancy on a computer; numerical translation was performed in Tehran by a state management organisation; the resulting wooden templates were handed to stonemasons who carved warped surfaces by hand. Each stage is named, and each stage is credited — except the last.

61. "Shahyad Aryamehr," 20.
62. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 162.
63. "Shahyad Aryamehr," 12.

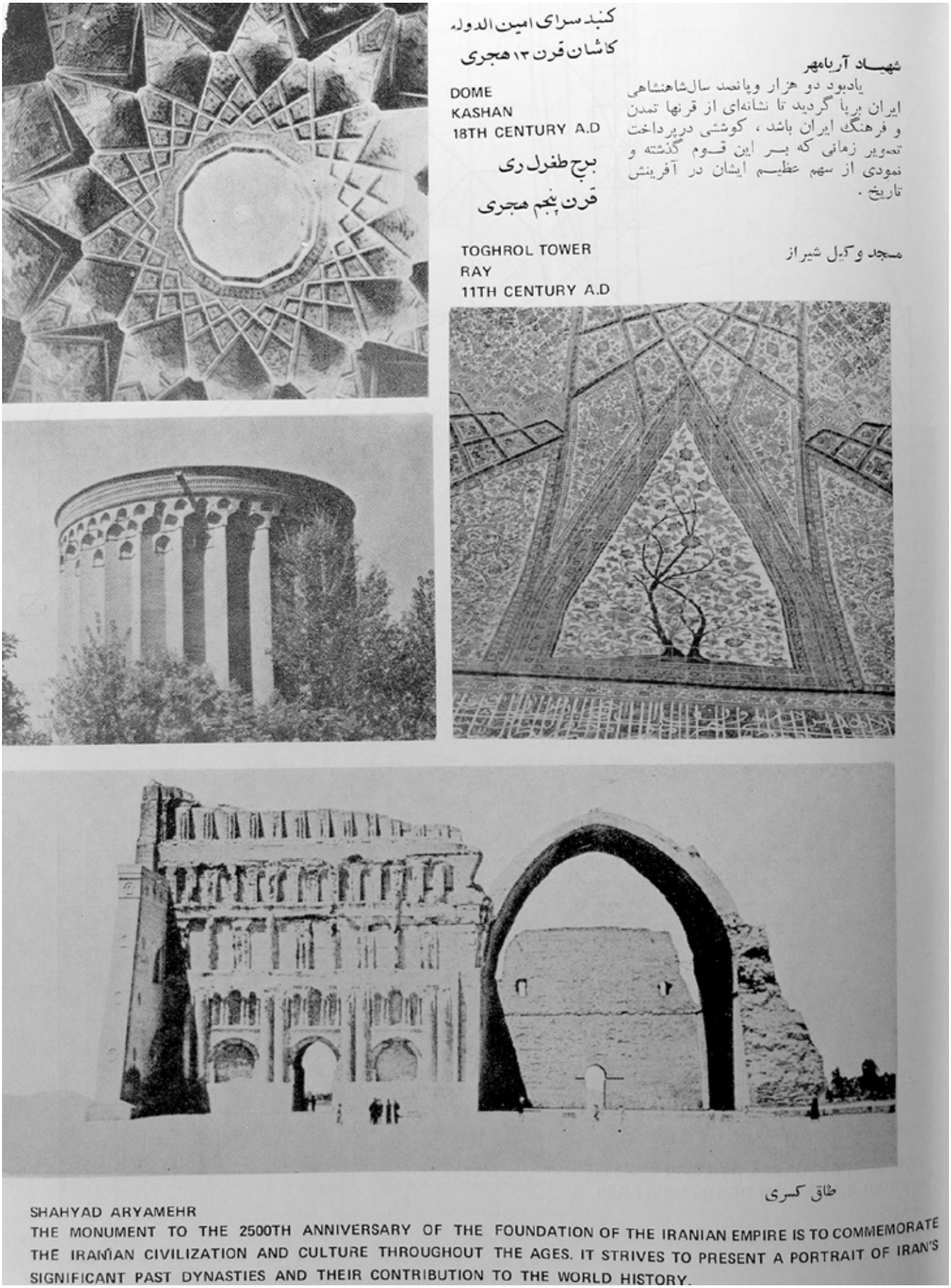


Figure 3.11. Architectural references for the Shahyad Aryamehr Tower, showing the vault alongside Taq-e Kasra, Toghrol Tower of Ray, the dome of the Amin al-Dowleh Caravanserai in Kashan, and the Vakil Mosque in Shiraz. Published in "Shahyad Aryamehr," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 13.

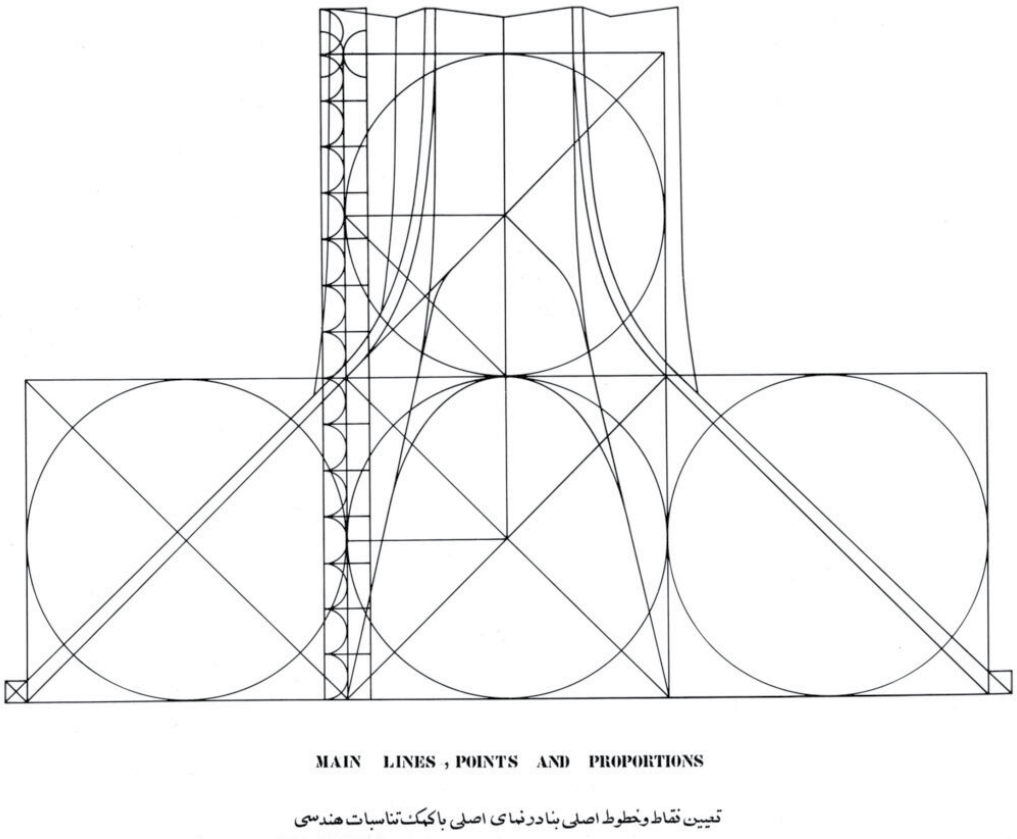


Figure 3.12. Proportional geometric grid of the main elevation, demonstrating the system of four primary squares, diagonal construction lines, and modular subdivisions governing the tower's geometry. Source: Hossein Amanat website.

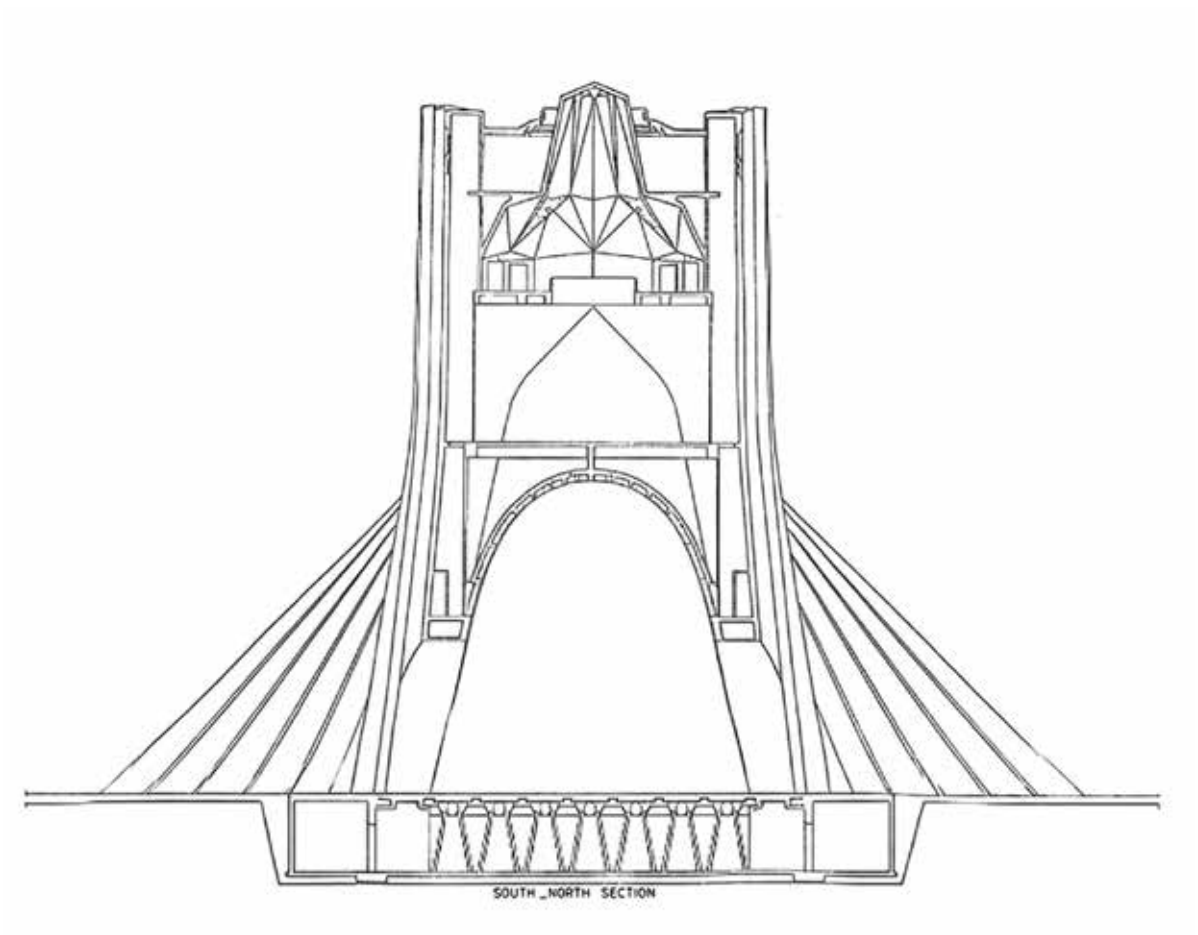


Figure 3.13. South–north section of Shahyad Tower. Source: Hossein Amanat website.

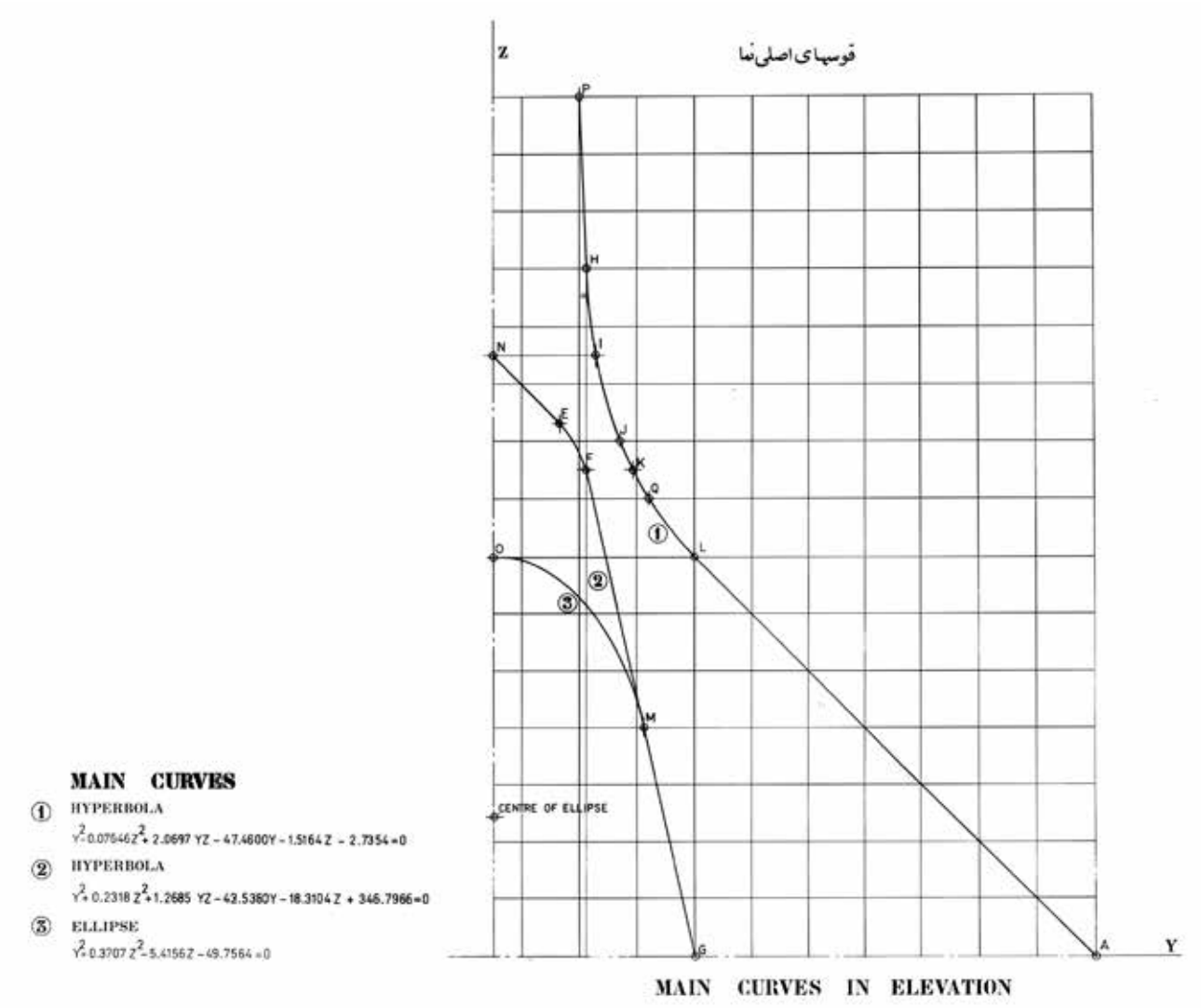


Figure 3.14. Mathematical formulation of the principal conic curves and their respective equations, enabling the generation of cross-sections at varying heights through structural computer calculations. Source: Hossein Amanat website.

Ove Arup is named, Duncan Michael is named, the Industrial Management Organization is named, the contractor and its executive director are named in the archival record.[64] The masons appear only as a category. This is a different silence from the one identified at the Saman Towers, and more revealing: there, labour was simply absent from the record; here the craft is celebrated at length while the craftsmen remain a collective noun. Manual skill is admitted into the account of the monument precisely to the extent that it can be presented as the executant of a computation performed elsewhere. The choice to clad rather than expose produced the section's central material irony.

A pure white exterior was intended from the outset, and two routes to it were considered: exposed white concrete, or white stone facing. The journal sets out the objections to the first with unusual candour — rapid soiling of the surfaces in an urban atmosphere, the difficulty of executing visibly clean white concrete and of controlling pour joints, the problem of waterproofing, and the impossibility of correcting errors that emerge during pouring, since the face remains hidden inside the formwork until it is struck. The tower's double-curvature geometry compounded these difficulties: rigid metal forms were unusable, and a hybrid system of flexible plywood panels on supporting steel frames was adopted instead, the

64. Hemmati, "A Monument of Destiny," 34.

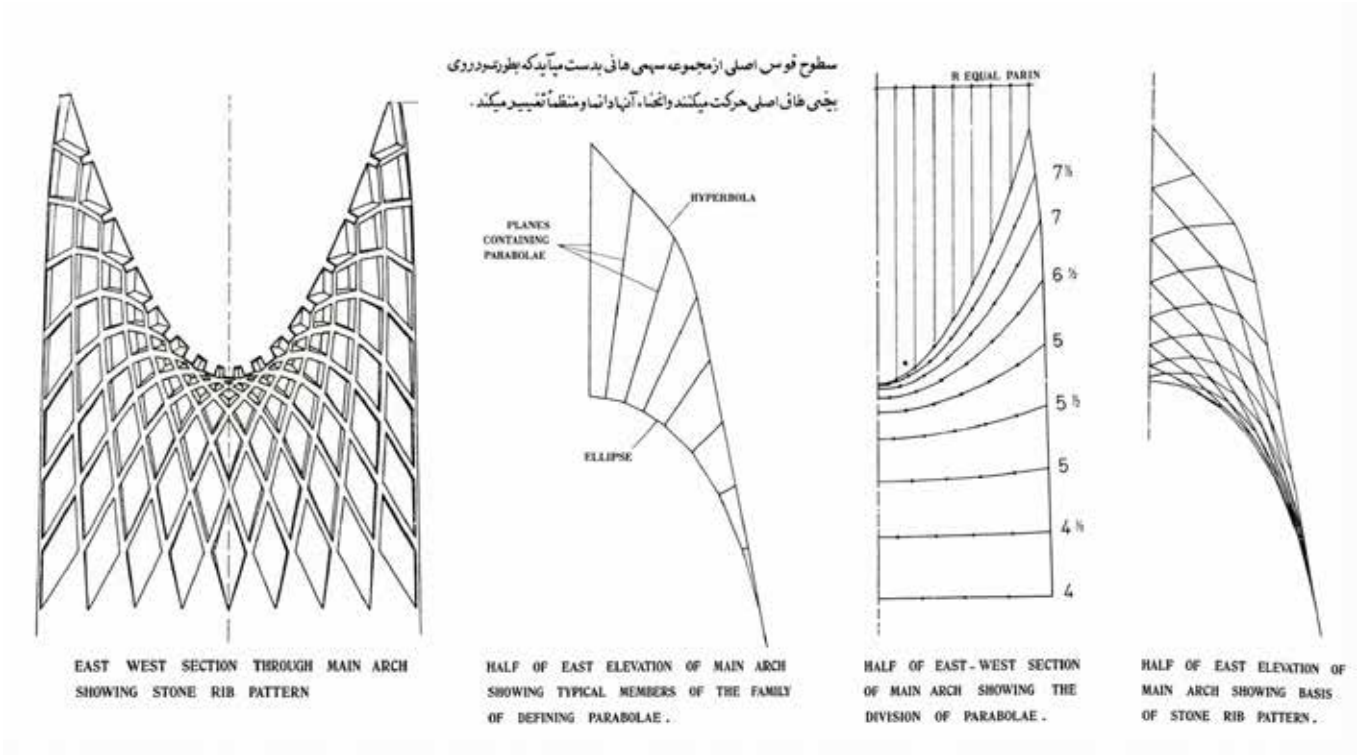


Figure 3.15. Rasmi-sazi of Shahyad Tower by electronic computer. Published in "Shahyad Aryamehr," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 15.

plywood supplying geometric flexibility and the steel resisting the hydrostatic pressure of the pour. The resolution was to use the stone itself as permanent formwork. Blocks of white Joshaghan marble, mostly 25 cm thick, were fixed to an iron mesh, positioned with theodolites, roughened on their rear faces for mechanical adhesion, and anchored with acid-resistant stainless-steel agrafs — chosen over phosphor bronze both because it resisted rust staining under moisture penetration and because it could be welded directly to the reinforcement — before concrete was poured behind them.[65] The journal records the resulting quantities: "The Shahyad Aryamehr Tower, standing at a height of 45 meters, is covered in thick, white stones. Approximately 25,000 stone blocks, in over 15,000 unique shapes, have been used for its cladding… The main structural skeleton is made of reinforced concrete, and these thick stones have been used as permanent formwork for the concrete pour."[66] Because every surface of the monument is warped, each stone shape recurs on average fewer than twice building.

Concrete, then, does all the structural work and none of the representational work. The journal notes that the volume of white concrete acting in a load-bearing capacity was itself without precedent in Iran, and that the material was left exposed in the interior while being wholly concealed outside.[67] Read against the argument developed in sections 2.3 and 2.4, this is a significant inversion. The Cold War's most ideologically saturated building material — the medium through which states from the Soviet Union to Western Europe advertised their modernity — was, in Iran's principal statement of national modernity, deliberately hidden. What the visitor sees instead is white marble quarried at Joshaghan, near Isfahan: some 25,000 blocks, cut into over 15,000 unique shapes, fixed to an iron mesh and used as the tower's permanent formwork.[68] The decision reads as an attempt to domesticate an imported modernity by wrapping it in a material of unambiguously Iranian origin. It also reads, more plainly, as an admission that exposed concrete could not survive Tehran's air with its symbolic value intact. The synthesis the monument advertised above ground has a counterpart below it. A pedestrian underpass carries visitors from the perimeter of the plaza to the base of the tower, and the drawing that documents it identifies its model without hesitation: the covered passage is likened to the Iranian bazaar, its rhythm of bays and its top-lighting borrowed from a commercial rather than a monumental type. The gesture is easy to overlook and analytically useful.

65. "Shahyad Aryamehr," 12, 21.
66. Ibid., 21.
67. Ibid., 12.
68. Ibid., 12.



Figure 3.16. Unidentified photographer. Construction of Shahyad Tower, Tehran, 1969–1971. Photograph. Farah Pahlavi Official Archive. Source: Hossein Amanat website.

Above ground the tower assembles a dynastic lineage — Sassanid vault, Seljuk tower, Safavid mosque — every element of which is ceremonial or religious. Below ground it quotes the one Iranian spatial type that is neither: the space of trade. That the reference appears in the underpass rather than in the monument proper is itself a statement about which histories the state considered fit for display.

The monument's funding was managed as carefully as its geometry, and to comparable rhetorical effect. Unlike most national monuments, Shahyad was presented as privately financed: the celebration's organisers claimed that 290 industrialists and merchants had paid for it, and Keyhan described the resulting structure as "a symbol of the gratitude expressed by Iranian industrialists and merchants who had notably profited from the country's recent economic progress. In many developed nations, it is typically the government or municipal authorities that undertake the construction of such monuments. In Iran, however, Shahyad was erected by the private sector to serve and commemorate the celebration and Iranians as a symbol of art and beauty."[69] The British ambassador reported to London that the monument had been financed, according to official claims, "entirely by grateful millionaires."[70] Shortly after the celebrations, Court Minister Asadollah Alam put the total cost, including landscaping and museums, at IRR 452,200,200 — roughly six million dollars — and stated explicitly that no government funds had been used.[71] Mehdi Taheri's examination of the archival record complicates the claim considerably. The larger documented contributions come from public entities: the National Iranian Oil Company, the Planning and Budget Organization and the Municipality of Tehran, and the Association of Iranian Banks. Not one individual donor's name appears in the archive or the contemporary press, in sharp contrast to the detailed donor records kept for the Persepolis Forest and the commemorative schools built for the same celebrations.[72]

69. "Shahyad Square," *Keyhan*, October 19, 1971, 2, quoted in Taheri, "Architectural Patronage and Diplomacy," 480.
70. Peter Ramsbotham, report to the UK government, quoted in Taheri, "Architectural Patronage and Diplomacy," 471.
71. Taheri, "Architectural Patronage and Diplomacy," 471.
72. Ibid., 471, 476, 486.

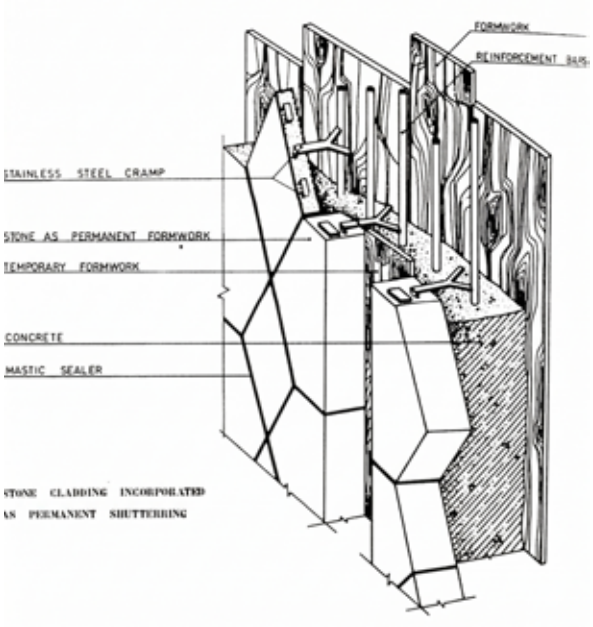


Figure 3.17. Isometric drawing of the stone cladding incorporated as permanent formwork. Published in "Shahyad Aryamehr," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 21.



Figure 3.18. Plan of the Shahyad pedestrian underpass, described in the original Persian caption as "evocative of the spaces of Iranian bazaars." Source: Hossein Amanat website.

The point of the funding model was never accounting; it was the White Revolution. Land reform was supposed to have dissolved feudalism and produced a new industrial and commercial class, and a monument paid for by that class was an argument that the reform had worked and was welcomed. Section 1.4 traced the White Revolution as a programme whose rural consequences were dislocation and migration; Shahyad supplied its counter-image, an anonymous consortium of prospering industrialists voluntarily funding a national monument out of gratitude. That the donors could not be named is what makes the construction legible. Naming them would have exposed how much of the money had come from the state and from Pahlavi-affiliated institutions, and would have collapsed the distinction on which the whole claim rested.[73] The inauguration was choreographed to make the argument visible. Guests were sorted into more than a dozen categories with scheduled arrival times, assigned positions and departure sequences; the 300 donors and their families were scheduled to arrive first, two hours before the ceremony began, to occupy one of the most prominent positions, and to leave last.[74] Nearly 1,600 journalists and photographers covered the celebrations, generating reports in 82 countries and 33 languages, with a live broadcast reaching close to a billion viewers.[75] The building was thus completed as the setting for a single evening, and the evening was constructed so that the world's cameras would find the donors seated among heads of state. Concrete here is not only the material of a monument but the material of an event — a distinction the following section pursues at considerably greater scale in the Aryamehr Stadium.

What happened to the monument after 1979 confirms, from the opposite direction, the argument this chapter makes about concrete's political usefulness. A structure bearing the Shah's name, built for the celebrations that came to stand for the regime's excess, might have been expected to fall. Duncan Michael, the engineer on the project, later admitted his surprise: "Because it was the Shah's icon, his motif, I rather expected it to be ritually destroyed in front of the cameras. But in fact, it turned out like all revolutions, they are national, and the people's will is a factor. The people loved it. The leaders were not going to spit in the eye of the people, so they've rebranded it."[76] Renaming replaced demolition. The tower became Azadi, Freedom, in acknowledgement of the mass gatherings it had hosted during the revolution — on 19 January 1979 it was the terminus of a march two million strong — and it remains the state's

73. Taheri, "Architectural Patronage and Diplomacy," 486.
74. Ibid., 484–85.
75. Ibid., 484.
76. Duncan Michael, quoted in Annelies Van de Ven, "(De-)revolutionising the Monuments of Iran," *Historic Environment* 29, no. 3 (2017): 23.



Figure 3.19. Unidentified photographer. Shahyad Tower, Tehran, ca. 1975. Photograph. Source: Hossein Amanat website.

preferred stage for the annual commemoration of the revolution's victory.[77] Annelies Van de Ven situates this within a wider programme in which Eisenhower Street became Freedom Street, Shah Street became Islamic Republic Street, and even Cyrus the Great Street became Dr Shariati Street: a "state-enforced process of social engineering and identity construction" conducted through language rather than through demolition.[78] The tabula rasa strategy described in section 3.1, by which the first Pahlavi ruler cleared ground to build a new capital, had by 1979 produced a city too comprehensively Pahlavi to clear. Editing was the only economical option, and the durability of reinforced concrete was among the reasons why. The building's material condition has since become the least resolved thing about it. Water penetration has generated widening cracks in the surface, and repairs carried out without regard to the original materials have accelerated rather than arrested the damage.[79] The stone skin was adopted, half a century ago, precisely to spare the concrete from the city's atmosphere and to guarantee a monument that would stand for centuries; the moisture found its way behind it regardless. Amanat, watching from exile, has described the slow deterioration as a reflection of Iran's unresolved struggle over its own identity: the monument, in his words, is "still standing, but it's not as it should be."[80] The formulation is unusually apt for a structure whose concrete body was always hidden by the historical surface it was built to support, and whose meaning has been contested, renamed and reoccupied without a single stone being removed.

77. Van de Ven, "(De-)revolutionising the Monuments of Iran," 23.
78. Ali Mozaffari, quoted in Van de Ven, "(De-)revolutionising the Monuments of Iran," 24.
79. Van de Ven, "(De-)revolutionising the Monuments of Iran," 24.
80. Hossein Amanat, quoted in Van de Ven, "(De-)revolutionising the Monuments of Iran," 24.

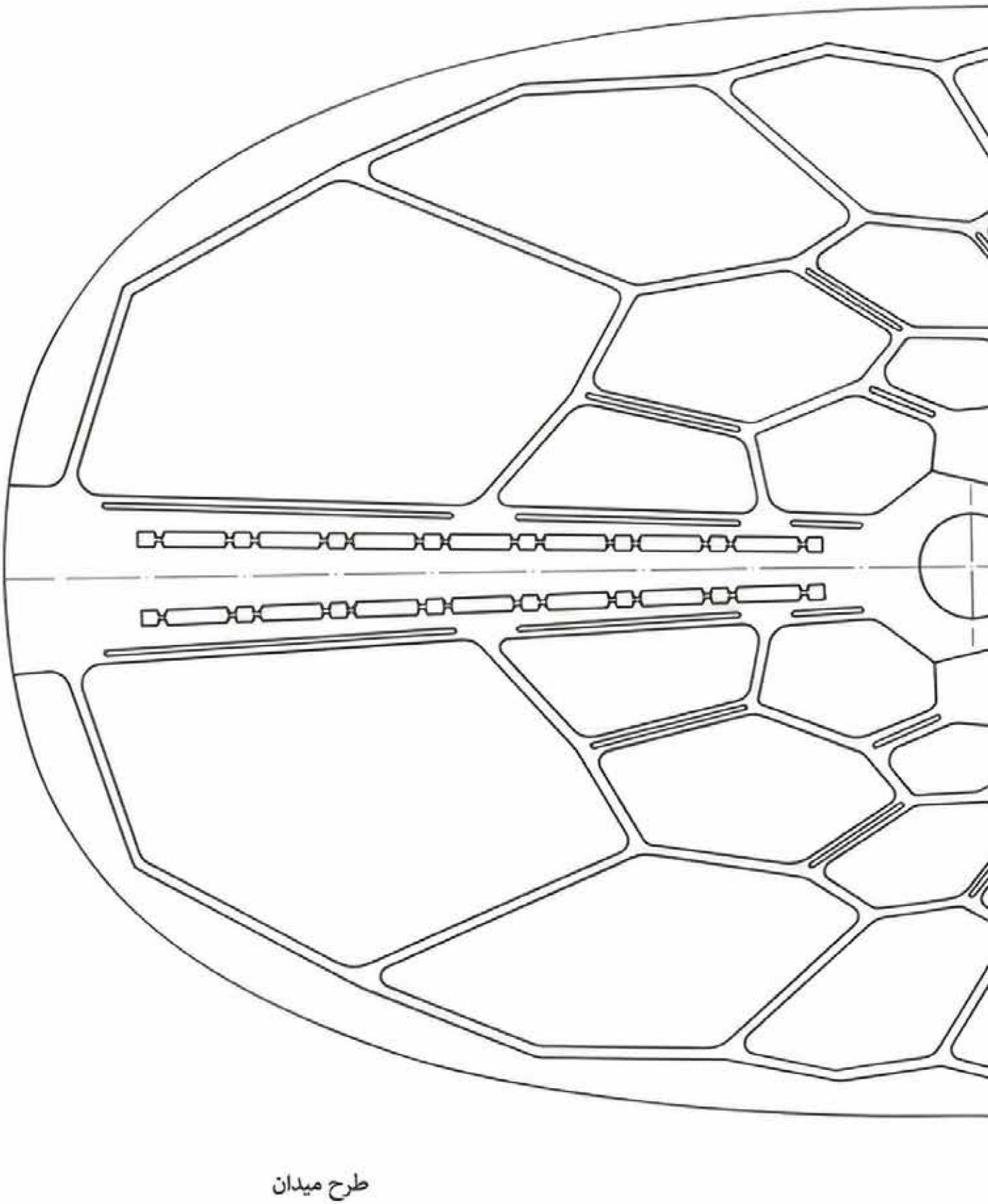
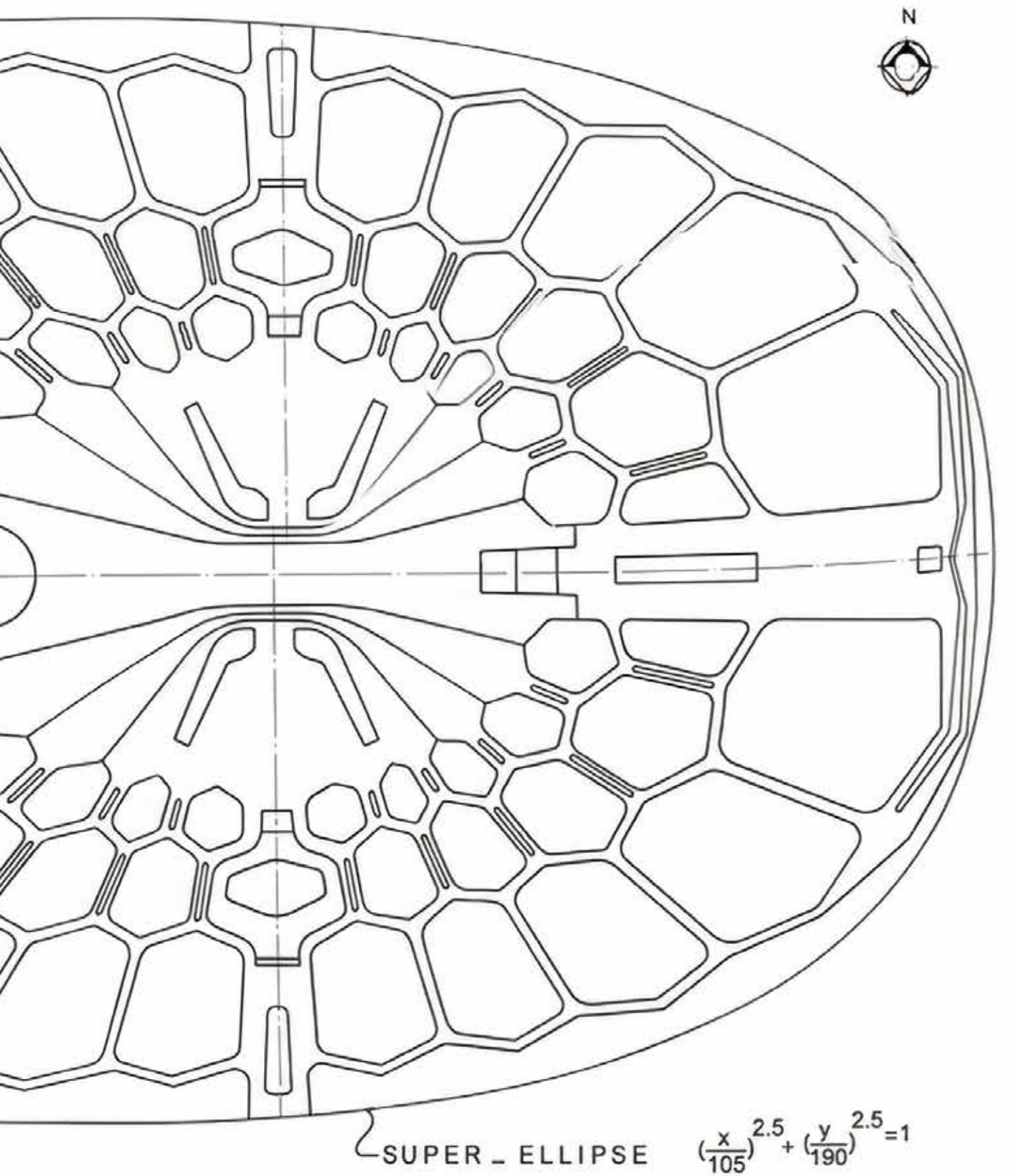


Figure 3.20. Landscape plan of the plaza. Published in "Shahyad Aryamehr," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 23.



AN OF THE PLAZA

3.4 The Aryamehr Stadium and Sports Complex: A Stage for Global Presence

Of the four buildings examined in this chapter, only one was designed to be unfinished without a crowd. The Saman Towers organised private life and required no audience at all; Shahyad delivered its argument on a single evening to some three thousand guests cleared in advance by Organization of Intelligence and National Security of the Country (SAVAK). The stadium at the fourteenth kilometre of the Karaj road was built to assemble a hundred thousand people in one place, and the political work it was meant to perform could not be performed without them. That dependence is simultaneously the source of its usefulness to the state and the reason it turned out to be the least controllable object the Pahlavi building programme produced. The site was chosen for what it already was. Khargush Darreh — Rabbit Valley — is a natural depression in western Tehran, and the design exploited its geometry rather than imposing one on it, cutting the bowl out of the ground instead of raising it above the ground.

Amir Bani-Masoud registers the consequence in a single phrase, describing the complex as containing "the world's largest earthen stadium with a 100,000-seat capacity."[81] The description deserves more attention than it usually receives, because it identifies something unusual about the building's material logic. A stadium of this size built as a free-standing structure would have been an enormous exercise in reinforced concrete; here the earth carries the seating, and concrete appears where earth cannot go — in the raked terraces, the vomitory tunnels, the ring beam and the perimeter frame. Excavation itself became a second act of construction, since the spoil removed from the bowl was used to form a man-made lake around which the restaurants and kiosks of the wider complex were later arranged.[82] Nothing was carried away. The state's largest single act of earthmoving in the capital produced, as a by-product, its landscape. Read against sections 3.2 and 3.3 the material decision is precisely inverted. At Saman the concrete frame multiplied saleable title on land the state had made artificially scarce; at Shahyad the concrete body was hidden entirely behind Joshaghan marble because the material could not be trusted to carry a national argument. At Aryamehr the concrete is neither hidden nor rhetorical. It is used where it is structurally unavoidable and left where it falls, and the ideological work is delegated not to the surface but to the volume — to the fact of a hundred thousand seats, which is a quantity rather than an image. Where the complex sits matters as much as how it was made. Section 3.1 established, following Azadeh Mashayekhi, that Tehran's growth after 1968 was structured by two motorways carrying opposite social contents, and that the Karaj axis was the one along which car factories, working-class neighbourhoods and sporting facilities were built.[83] Aryamehr is the largest object on that axis. The state placed the one building type in its portfolio that admitted the entire population on the corridor it had zoned for the classes least represented in the rest of the inventory — and it did so roughly thirteen kilometres from the city centre, close to Mehrabad and therefore within the same arrival sequence as Shahyad.[84]

81. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 139.
82. Ibid., 139.
83. Mashayekhi, "The 1968 Tehran Master Plan," 19.
84. Hemmati, "A Monument of Destiny," 37.



Figure 3.21. Unidentified photographer. *Abdol-Aziz Farmanfarmaian, Aryamehr Sports Complex, Tehran*, 1974. Aerial view of the completed stadium, showing the bowl integrated into the surrounding terrain and landscape. Source: Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 139.

A visitor landing at the international airport in the autumn of 1971 encountered both structures within minutes of each other: a monument that could be looked at, and a bowl that could be entered. The pairing was not accidental, and the two buildings divide the labour of representation between them.

Documentation of how it was actually built is thinner than the scale of the undertaking would suggest. As already noted, Bani-Masoud describes the finished complex as the largest earthen stadium of its kind, designed by Farmanfarmaian in partnership with SOM, America's most prominent architecture firm; he adds that the wider complex also comprised a 12,500-seat Sports Hall, five smaller sport halls, and a Swimming Hall built around a lake that had resulted from the stadium's own excavations — a detail that identifies the lake as a by-product of construction logistics rather than a planned landscape feature.[85] Bani-Masoud dates the stadium's completion to 1971, consistent with its inauguration that October, but gives no start date for the main structure. The project was executed by the Arme Corporation, a civil engineering firm founded by the engineer Amir Malekyazdi and officially registered in Tehran on December 28, 1947, with an initial capital of one million rials; a recurrent contractor on large national infrastructure, its capacity to coordinate an operation of this magnitude reflects the Pahlavi state's dependence on a small number of specialised executive entities.[86]

85. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 139.
86. Amir Malekyazdi, quoted in Abbas Milani, *Eminent Persians: The Men and Women Who Made Modern Iran, 1941–1979*, vol. 2 (Syracuse, NY: Syracuse University Press, 2008), 725.



Figure 3.22. Unidentified photographer. Aryamehr Stadium under Construction, Tehran, ca. 1971. Photograph. Source: Wikipedia.

Malekyazdi's own later account, given decades afterward to his biographer, is more revealing of what that dependence concealed than of what it accomplished. He recalled that rumours of kickbacks and of "dangerously shabby construction" had circulated around the stadium even before it opened, with cracks and wet patches reportedly visible on the foundations of the spectator stands, and accusations that his company had cut corners on steel reinforcement — allegations he denied.[87]

What survives, in other words, is not a verified account of execution but a contest between an official narrative of national capacity and a private, contested one of corner-cutting — a contest this thesis is not in a position to adjudicate, but one that points to the same underlying condition examined throughout this section: that the stadium's authority rested less on what was verifiably built than on who controlled the account of its building. The workforce is again absent. No source consulted for this study names, counts or describes the men who dug the bowl and poured the terraces, and the omission is more conspicuous here than at Saman because the labour involved was so much larger and because the state filmed the site extensively for its own purposes. The photographic and cinematic record of the construction exists in quantity; it is a record of machinery, formwork and orchestrated sequence, and the people in it appear as operatives within a process rather than as its authors. The archive does not lack images of the building site.

87. Malekyazdi, quoted in Milani, Eminent Persians, 723.



It lacks a vocabulary in which the site could be understood as a place where people worked. Iranian professional discourse of the period had already theorised why a state might want a building of this kind, and did so with unusual frankness. Reporting on the facilities for the 1972 Munich Olympics, the Art and Architecture Journal argued that international events license architectural experiment that ordinary commissions cannot sustain: "The opportunity that major international events, such as the Olympics and global exhibitions, provide for architecture is exceptionally valuable. It is during these occasions that, more than usual, the possibility arises to design and present an avant-garde work of art.

Architects find the chance to experiment with their modern and even super-modern ideas — concepts that might find no place in routine projects like housing developments or administrative buildings. Regardless of the goals nations achieve through these ceremonies, architecture also gains the permission to pave the way for the architectural paths of the future."[88] The passage is worth reading twice, because its concessive clause is the interesting part. "Regardless of the goals nations achieve through these ceremonies" concedes, without embarrassment, that the state has purposes of its own and that the profession's interest in them is instrumental.

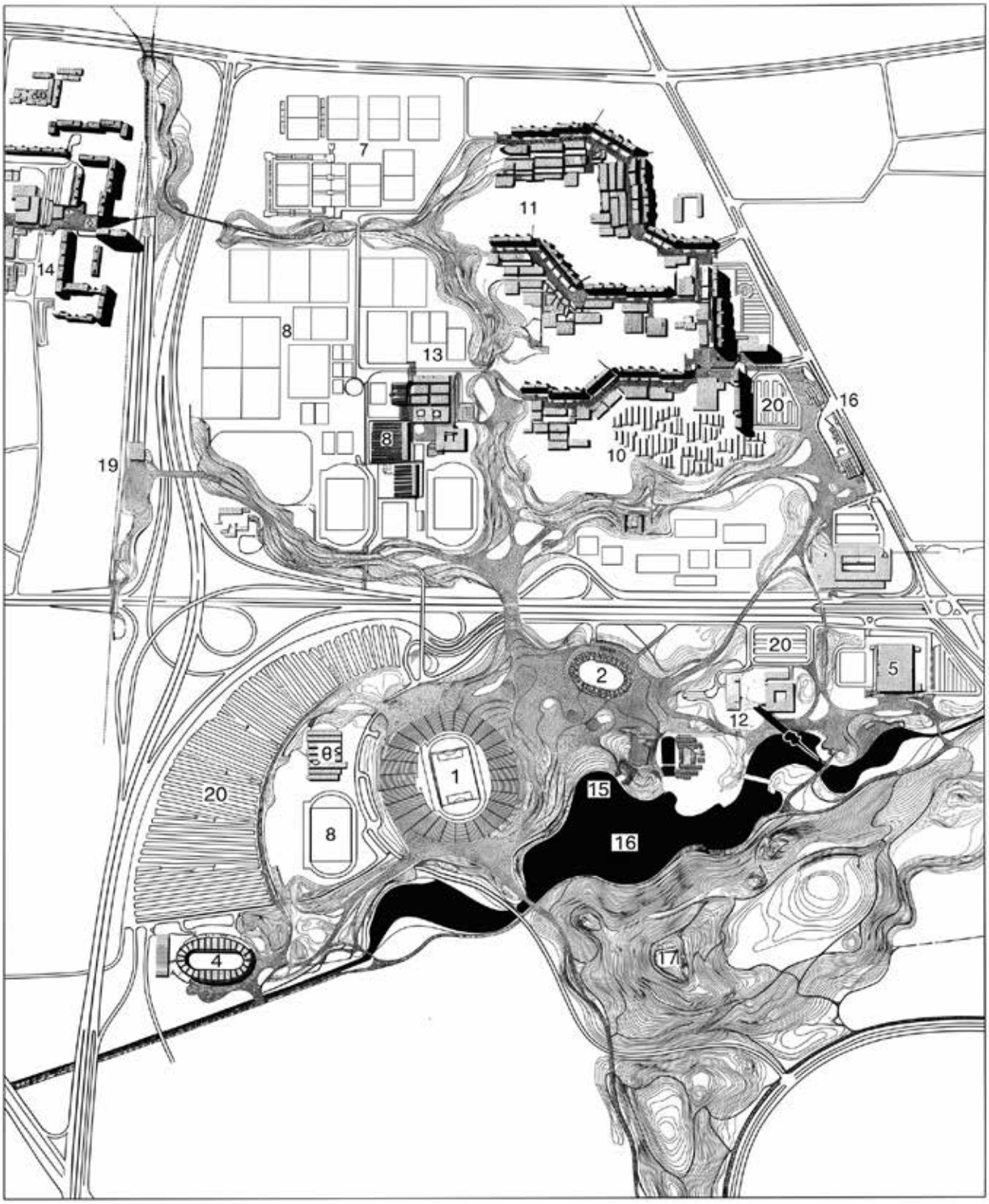
88. "Munich, 20th Olympic Sports Facilities," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 82. Translated from the original Persian by the undersigned.

Iranian architects understood perfectly well that they were being given resources for reasons that had nothing to do with architecture, and the journal's position is that this is a bargain worth making. Willi Daume, president of the Munich organising committee, is quoted in the same issue insisting that "the holding of the Olympics brings honor to architecture," that the organisation of the Olympiapark "has no equal in the world," and that its architectural boldness "is unique in its kind."[89]

What the journal transmitted to its Iranian readership, in other words, was not a set of forms but a justification. That transmission turns out to have been literal as well as discursive. Preparing for the Asian Games, the Iranian organisers "consulted with foreign advisors and even hired the services of the German sports professionals and television who had run the Munich Olympics in 1972."[90] The relationship between Munich and Tehran is therefore not one of influence or homage but of procurement. The personnel who had staged the most technically ambitious sporting spectacle in Europe were engaged, as a service, to stage the Iranian one. This is the same operation traced at Saman in section 3.2, where a prefabrication technology developed for European mass housing was imported under licence and applied to luxury apartments: the apparatus of a modernity produced elsewhere is bought entire, detached from the conditions that generated it, and installed. Munich's tensile roofs were the product of a long argument within German architectural culture about lightness and openness after 1936. Tehran did not import that argument. It imported the people who could make the broadcast work. Comparative literature on stadium architecture supplies a frame for this, but it requires a correction before it will fit. John Horne observes that mega-events "have long provided opportunities for nations to signal emergence or re-emergence on the international stage," and that hosting one "enables symbolic as well as material nation building to take place."[91]

The observation applies to Aryamehr exactly. Horne's explanatory apparatus, however, does not: he is describing a post-1980s world of interurban competition in which cities commission iconic architecture to attract mobile capital, and Xuefei Ren's analysis of the Beijing National Stadium works on the same premise, situating flagship projects within a shift from production sites to consumption sites and an accompanying ideology of global consumerism.[92] Tehran in 1974 was not competing for investment and was not selling itself to visitors. It was spending oil rent on a demonstration addressed to governments. The comparison is instructive precisely because the mechanism differs while the outcome converges: a state can arrive at the stadium-as-national-advertisement without passing through the market conditions that the literature treats as the cause.

89. Willi Daume, cited in "Munich, 20th Olympic Sports Facilities," 90. Translated from the original Persian by the undersigned.
90. Or Hareuveny and Yehuda U. Blanga, "The 1974 Asian Games in Tehran: Israel's Final Countdown," *Israel Affairs* 29, no. 3 (2023): 539.
91. John Horne, "Architects, Stadia and Sport Spectacles: Notes on the Role of Architects in the Building of Sport Stadia and Making of World-Class Cities," *International Review for the Sociology of Sport* 46, no. 2 (2011): 215.
92. Xuefei Ren, "Architecture and Nation Building in the Age of Globalization: Construction of the National Stadium of Beijing for the 2008 Olympics," *Journal of Urban Affairs* 30, no. 2 (2008): 177–78.



LEGEND:

1- Olympic Stadium
2- Indoor Sports Hall
3- Indoor Swimming Pool
4-Cycling Stadium (Velodrome)
5- Small Indoor Stadium
6- Indoor Volleyball Stadium
7- Hockey
8- Training Area
9- Gymnastics
10- Olympic Village for Women
11- Olympic Village for Men
12- TV Tower
13- Radio and Television Center
14- Telecommunications Center
15- Open-air Theater
16- Artificial Lake
17- Hill
18- Metro Station
19- Railway Station
20- Parking Area

Figure 3.23. Master plan of the Olympic Sports Complex. Published in "Munich, 20th Olympic Sports Facilities," *Honar o Me'mari* [Art and Architecture Journal], nos. 12–13 (1972): 92.

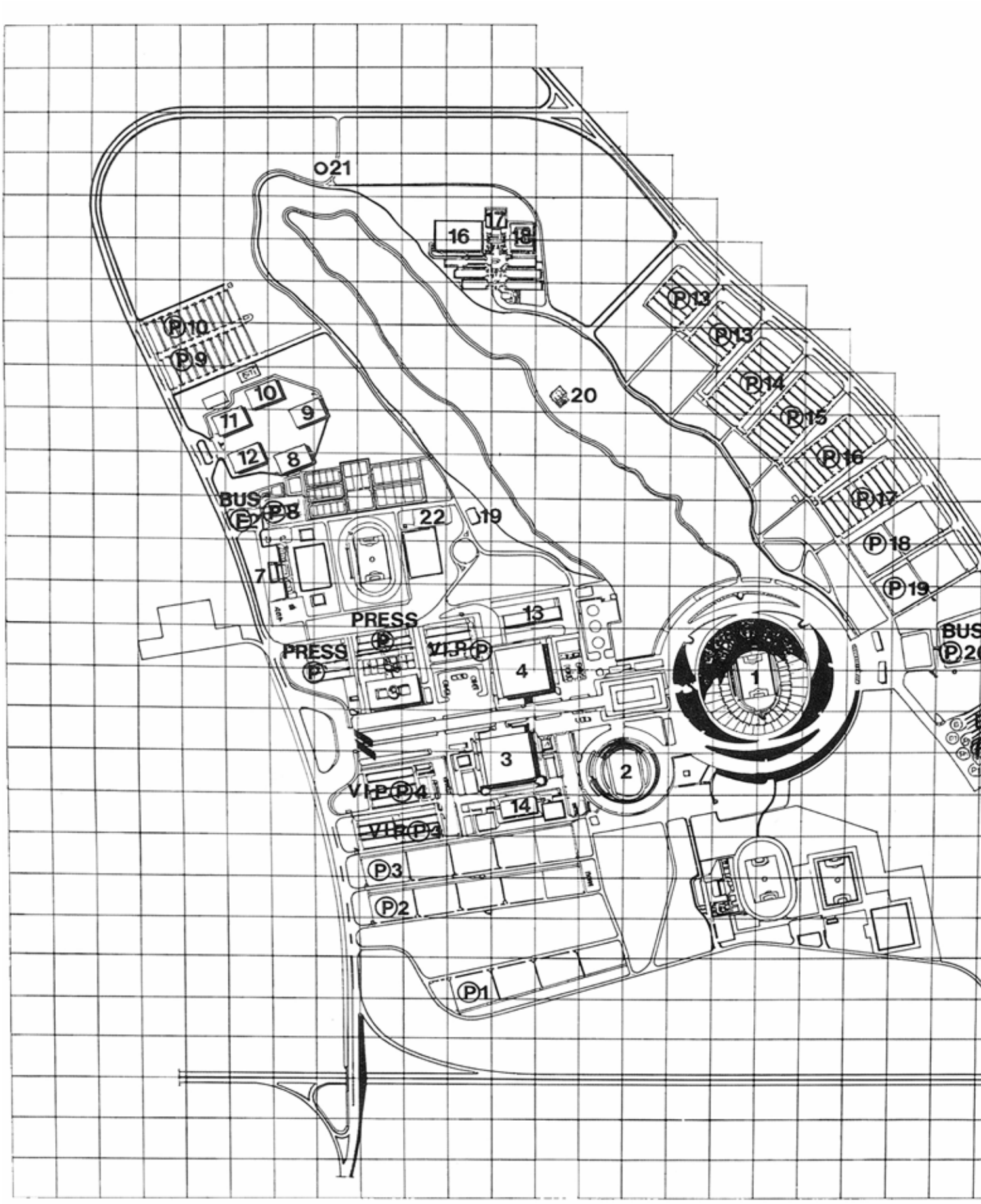
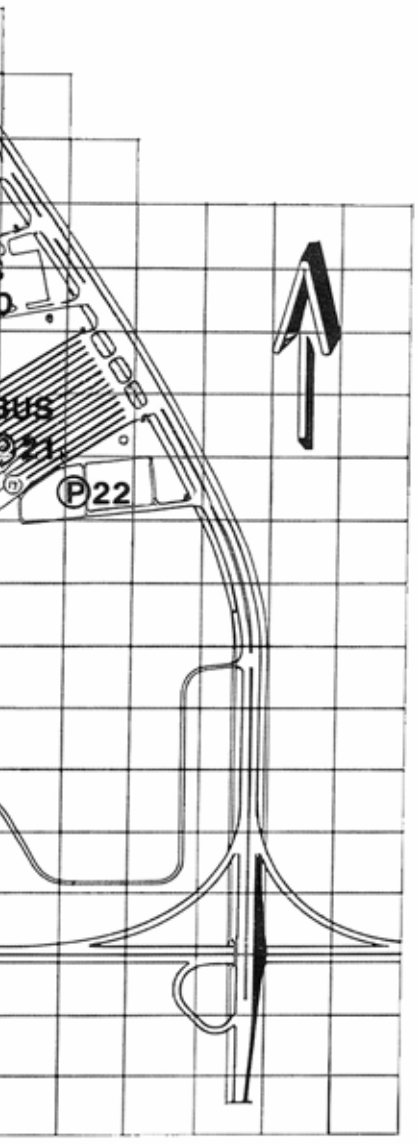


Figure 3.24. Master plan of the Aryamehr Sport Centre. Published in "Aryamehr Sport Centre," *Honar o Me'mari* [Art and Architecture Journal], nos. 22–24 (1974): 33.



LEGEND:

1- Main stadium
2- Velodrome
3- Sports hall
4- Swimming pool
5- Administration press
6- Auditorium
7- Hockey service bldg
8- Basketball hall
9- Weight lifting hall
10- Volleyball hall
11- Table-tennis hall
12- Fencing hall
13- Mechanical bldg.
14- Multipurpose hall
15- South service bldg
16- Shooting 50m
17- Shooting 25 m
18- Club house
19- West restaurant
20- East restaurant
21- Snack bar
22- Hospital

Ren's Beijing hired Herzog and de Meuron for a signature; Farmanfarmaian's office hired Skidmore, Owings & Merrill, described above in Bani-Masoud's terms, for competence.[93] No one in 1974 was asked to recognise the design. The programme was executed in two stages, and the sequence is the clearest available evidence of what the state actually wanted.

Phase one delivered the hundred-thousand-seat stadium and its access roads; phase two diversified the four hundred hectares into a "sports city" of velodrome, aquatic centre, five smaller halls, shooting ranges, hockey pitches, administration and training facilities.[94]

The stadium was therefore finished first, ahead of the sporting infrastructure that would justify it. What it was finished in time for is a question the newspaper record answers with unusual clarity. One element of phase two deserves attention that it has not received. The complex included a purpose-built Press Centre, planned and published as a building in its own right, with its own floor plans in the professional record.[95] Broadcast and press facilities are usually treated as an appendix to stadium design. Their presence here as a discrete architectural commission indicates something about how the project was conceived: the audience that mattered was not in the bowl. The building was designed, from the outset, to be transmitted.

93. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 139.
94. "Aryamehr Sport Centre," *Honar o Me'mari* [Art and Architecture Journal], nos. 22–24 (1974): 33.
95. Ibid., 67.

When the same journal that published the Aryamehr plans had earlier reported that four thousand journalists were accredited for Munich — "1,900 press journalists, 1,200 radio and television journalists, 500 representatives of international press agencies, 350 photographers"[96] — it was describing the constituency that Tehran's Press Centre was built to accommodate. Concrete, in this reading, is the substrate of a media event rather than the event itself.

Film did work that the plans could not. Footage of the construction survives, most probably produced by National Iranian Radio and Television, and its editorial logic is unmistakable: rhythmic machinery, sequenced pours, the monumental geometry of the formwork, and a site from which difficulty, delay and exhaustion have been removed.[97] What the camera records is not a building under construction but a demonstration that the country possesses the capacity to construct. Distributed through the era's most powerful medium, the images converted an unfinished object into a completed claim. The newspaper supplied the argument for progress in words; the moving image supplied it as apparent fact, and did so before the building existed. The stadium's first public function had nothing to do with sport. On 18 October 1971 it hosted a mass gathering as part of the closing sequence of the 2,500-year celebrations, and Ettela'at — founded in 1926 by Abbas Masoudi and the most widely circulated newspaper in Pahlavi Iran — carried it under the headline "A 100,000-Person Prayer at Aryamehr Stadium," describing the royal family and senior officials looking out over a disciplined mass below.[98]

The framing is worth pausing on. A building typologically defined by competition was introduced to the public as a site of collective devotion, with the state positioned above and the population arrayed beneath. The architecture made the arrangement legible without anyone having to argue for it, since a bowl with a tribune has only one privileged viewpoint and the ceremony simply occupied it.

The adjacent page performed a different operation on the same event. Under the sidebar Moshakhasat-e Stadium — Stadium Specifications — the paper set out capacity, construction period, VIP enclosures, acoustic systems and Asia's first synthetic Tartan track.[99] Construction time appears there as an attribute of the building, listed alongside its seating and its track, exactly as it had been in the reporting on Saman three years earlier. Section 3.2 observed the identical manoeuvre in the reporting on Saman's precast panels, where technical description functioned as a claim about Iran's position relative to Europe and America. Here the referent is Asia, and the comparative unit has changed accordingly: the readership is invited to locate the country not among industrialised nations but at the head of a region. The two pages together — devotion on one, specifications on the other — constitute a fairly complete statement of what the building was for. Bani-Masoud situates the episode within a longer pattern, observing that "the organization of numerous celebrations commemorating various occasions, all centered on the Shah and the institution of monarchy, constituted a manifestation of state policy that culminated in the 2,500-year celebration of the Iranian monarchy.

96. "Munich, 20th Olympic Sports Facilities," 98.
97. "Aryamehr Stadium Construction Footage," produced by unidentified producer, 1971, archival video recording, TikTok, @rezabarri, accessed April 6, 2026, https://www.tiktok.com/@rezabarri/video/7454970890699197704
98. Ettela'at, no. 13625 (October 18, 1971): 9. Translated from the original Persian by the undersigned.
99. Ibid., 10.

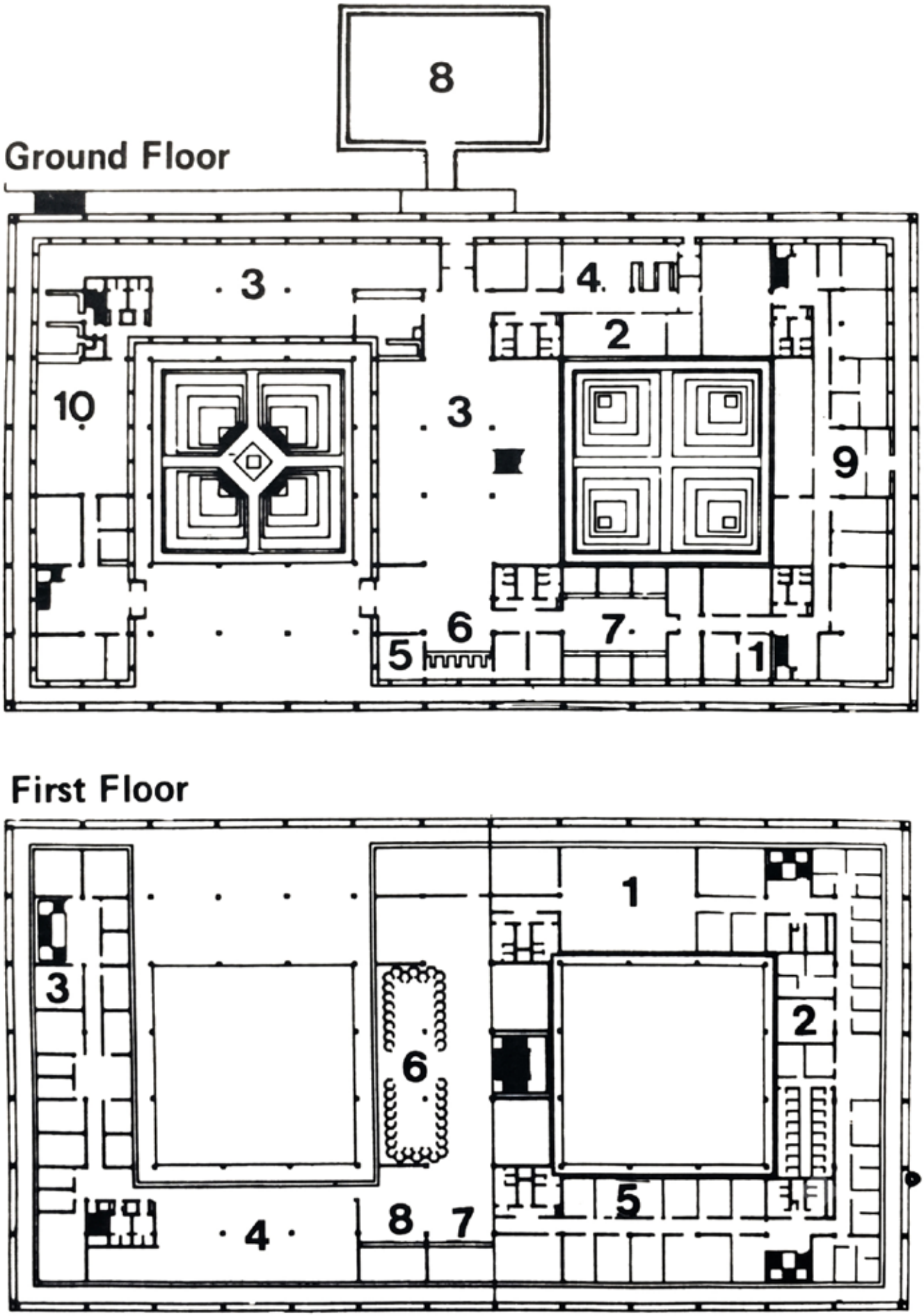


Figure 3.25. Press Centre plans, Aryamehr Sport Centre. Reproduced from "Aryamehr Sport Centre," *Honar o Me'mari* [Art and Architecture Journal], nos. 22–24 (1974): 67.

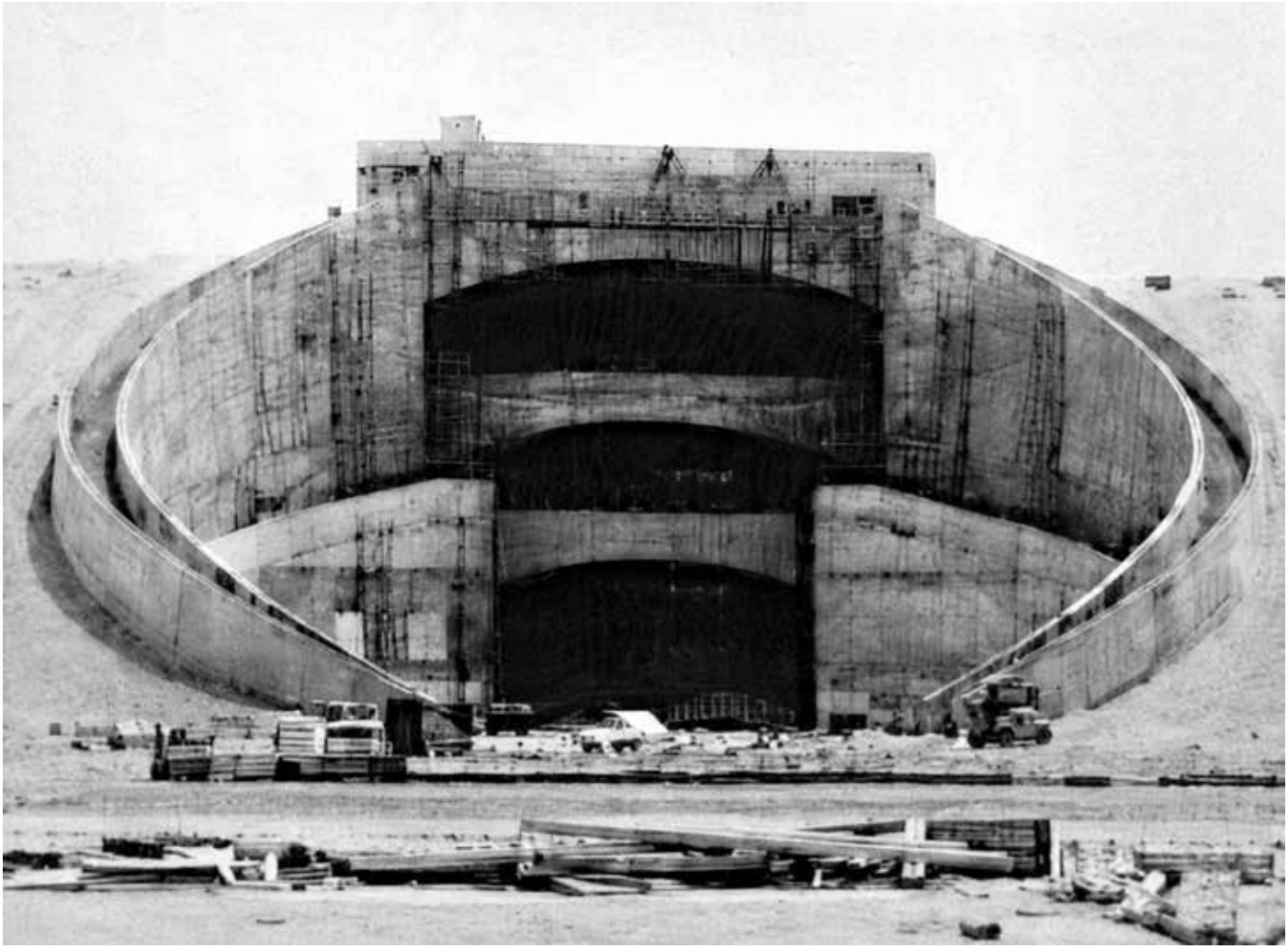


Figure 3.26. Aryamehr Sports Complex, construction stage of the subterranean concrete arch structure, Tehran, ca. 1969. Reproduced from Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 140.

Through these events, an ultimately unsuccessful attempt was made to position the monarchy at the center of public life and to revive the grandeur and prestige of Iran's ancient heritage."[100] The judgement of failure is delivered in retrospect and from the far side of 1979, and it should be read as such. Its value here is that it identifies the state's ambition correctly: not to commemorate but to centre. The stadium was built to put the monarchy at the middle of the population's field of vision, and the geometry of a bowl is the most efficient instrument for that purpose ever devised.

Whether the instrument worked is a question the 1974 Asian Games answered, and not in the way the state intended. The event was the largest international gathering Iran had hosted, and its purpose was explicit. Or Hareuveny and Yehuda Blanga describe a regime for which hosting "could add Iran to the roster of developed countries, just as Tokyo Olympics in 1964 had done for Japan," financed by the vast revenues that followed the 1973 oil crisis, and treated by its organisers as "the opening shot for bids to host other international events and competitions, especially the Olympics."[101] The Shah had told the president of the International Olympic Committee as early as 1967 that he regarded the organisation of the games as a national challenge and mission; his half-brother Gholam Reza was installed as president of the Asian Games Federation; foreign journalists were issued brochures presenting the Shah in imperial robes as the games' patron.[102] The stadium was one component of a communications operation of which the monarchy was both sponsor and subject. Diplomatically the games were an exercise in demonstrating that Iran could be trusted with an international event, and the most delicate element of that demonstration was the Israeli delegation.

100. Bani-Masoud, *Me'mari-ye Mo'aser-e Iran*, 266.
101. Hareuveny and Blanga, "The 1974 Asian Games in Tehran," 539.
102. Ibid., 539.



صفحه ۱۰ ـ اطلاعات

دوشنبه ۲۶ مهرماه ۱۳۵۰ ـ شماره ۱۳۶۲۵

ورزشگاه یکصدهزار نفری آریامهر

مسئله کمبود «جا» را حل کرد

مشخصات استادیوم

ورزشگاه بزرگ یکصد هزار نفری آریامهر در شانزده کیلو متری غرب تهران قرار گرفته است . کار ساختمان این ورزشگاه حدود دوسال قبل آغاز شد و ده هزار مهندس ، سرکارگر ، کارگر فنی و ساده کار ایجاد آنرا برعهده داشتند .

ورزشگاه بزرگ آریامهر دارای دیواره های بلند در شرق وغرب است . ورزشگاه سردو طبقه ایجاد شده است که طبقه اول آن چهل هزار نفر و الکتب دوم شصت هزار نفر و جمعا یکصدهزار نفر گنجایش دارد . این ورزشگاه دارای پارکینگ های مجهزی است که می تواند اتومبیل های تماشاگران را در خود جای دهد . جایگاه مخصوص در غرب استادیوم قرار دارد . در قسمت شرق رویروی جایگاه علامت شیر های بها بسکه که نشان سلطنتی ایران است دیده میشود . این ورزشگاه مجهز بزمین چمن فوتبال ، پیست کامل دو ـ وميداني ، زمين پرشها و پرتاب ها ، تیراندازی ، اطاق ماساژ ، اطاق داوران و دوربین تلویزیون الکترونیک به زبان های فارسی و انگلیسی است که رکوردهای مسابقات را لحظه به لحظه نشان می دهد .

استادیوم دارای هشت در ورودی است که در جایگاه مخصوص ورود خبرنگاران با آسانسور و مشرف برای سایر تماشاگران در نظر گرفته شده است .

این ورزشگاه دارای ۲۰ تلفن عمومی ، و ۲۰ تلفن خصوصی برای خبرنگاران ، ۲۰ خط خصوصی بسرای ارتباطات رادیو و تلویزیون و تلفن بین المللی و دو دستگاه تلکس است . ضمنا دوازده دستگاه تلکس دیگر نیز به زودی داخل ورزشگاه برای خواهد افتاد . دوراه اتومبیل بزرگ راه فرعی ـ کرج و دیگری راه فرعی تهران ـ کرج ، کنار قسمت شرق و غربی ورزشگاه قرار دارد . تماشاگران را به ورزشگاه هدایت می کند در این ورزشگاه تلویزیون مداربسته رنگی نیز برای استفاده خبرنگاران نصب شده است . تاسیس این ورزشگاه مسئله کمبود جا هنگام مسابقات حل شده است .

منظره دیروز استادیوم یکصد هزار نفری آریامهر

گوشه‌ای از اجتماع خبرنگاران خارجی .

راهنمائی و تسهیل کار صدها خبرنگار که از اکناف جهان به ایران آمده بودند کار ساده‌ای نبود ، ولی قدرت سازمان دهی خارجی ۱۰ میلیون کلمه مخبره از شیراز به سراسر جهان مخابره کردند . اطاق تلکس که برای آنها ترتیب یافته بود شاید تا کنون نظیر نداشته باشد .

سازمان‌دهی جشن شاهنشاهی بی نظیر بود

خبرگزاریهای خارجی درباره جشنهای شاهنشاهی عاوسرخبر ، عکس های جالب متعددی نیز بدنبا فرستاده‌اند . عکس بالا که ازطرف خبرگزاری فرانسه در جهان منتشر شده است منظره‌ای از سرایرده های سران کشور ها در تخت جمشید را نشان می دهد . سرایرده بزرگی که محل پذیرائی میهمانان شاهنشاه و شهبانو بود نیز در عکس دیده میشود .

خبرنگاران ما که مامور تهیه اخبار جشن شاهنشاهی ایران بودند گزارش دادند که سازمان دهی جشن وتنظیم وترتیب خاص آن حیرت‌آور وانبساط انگیز و درخور هر گونه تحسین بود .

برنامه های جشن با همان دقتی که تنظیم شده بود اجرا می شد ، و این برنامه هم بدیرائی وراهنمائی بی‌سابقه خبرنگاران کوچکترین نقص بچشم نمیخورد .

یک خبرنگار ما در باره تنظیم برنامه برای صدها خبرنگار ، فیلمبردار وعکاس خارجی که از اکناف جهان بایران آمده‌اند می گوید : تسهیلاتی که برای این عده فراهم شده بود بی نظیر وتحسین آمیز بود .

هر خبرنگار خارجی درامداد داشت ، زبان مشترک خبرنگاران فرانسه وانگلیسی بود ولی بعضی از خبرنگاران جز زبان مادری خود زبان دیگری نمی‌دانستند مثلا یکی از آنها که خبرنگار پست روزنامه چاپ آفریقی بود هیچ زبانی جز زبان بومی خود نمی دانست ولی برای این خبرنگار هم راهنما گذارده بودند که بزبان او آشنائی داشته زبانهای انگلیسی، فرانسه ، آلمانی ، ایتالیائی، اسپانیائی ، عربی و روسی بود .

دستگاه تلکس هر آن ارتباط هر خبرنگار را با مرکز روزنامه یا رادیو و تلویزیون برقرار می کرد . آنها بااطلاع یافتند که جهان میخواستند هر آن که مایل بودند مصاحبه کنند .

ترتیبی داده شده بود که روزنامه های جهان سریعا در شیراز دریافت شود . پرواز هر کشوری از فرانسه خبرنگار بشیراز آمده بود . فعالیت چشمگیر وزارت اطلاعات در این هدایت گروه انبوه خبرنگاران و پرسنل بسیار زحمات بسزائی بعمل آورد . بیشترین برنامه ها قابل تحسین بود این کار شجیعه و نظم بی نظیری به چشم میخورد پذیرائی از سران و نمایندگان ممالک مختلف در پرآشائی شب هاوبرگزاری مجالس جشن‌وسرور .

راه‌آهن و تسهیل کار صدها خبرنگار که از اکناف جهان به ایران آمده بودند کار ساده‌ای نبود ، ولی قدرت سازمان دهی خارجی ۱۰ میلیون کلمه مخبره از شیراز به سراسر جهان مخابره کردند . اطاق تلکس که برای آنها ترتیب یافته بود شاید تا کنون نظیر نداشته باشد .

Figure 3.27. The 100,000-person prayer and opening ceremony of Aryamehr Stadium, held on the occasion of the 2,500-year celebration of the Persian Empire, Tehran, October 18, 1971. Newspaper clipping from *Ettela'at*, no. 13625 (October 18, 1971): 10; via Wikipedia.


صفحه ۹ ـ اطلاعات

دوشنبه ۲۶ مهرماه ۱۳۵۰ ـ شماره ۱۳۶۲۵

نیایش یکصد هزار نفری در استادیوم آریامهر

در پیشگاه شاهنشاه، شهبانو، اعضای خاندان جلیل سلطنت و میهمانان عالیقدر

یکصد هزار نفر در ورزشگاه آریامهر برای پیروزی و توانائی شاهنشاه و سربلندی ایران دست به دعا برداشتند

عملیات ورزشی دیروز

استادیوم آریامهر بی نظیر بود

شاهنشاه با بلند کردن دسته ابراز احساسات دهها هزار شرکت کننده در نیایش پاسخ میدهند . علیاحضرت شهبانو و میهمانان عالیقدر شاهنشاه در فرنین محفظه دیده میشوند .

Figure 3.28. The 100,000-seat Aryamehr Stadium and its technical specifications, Tehran, October 18, 1971. Newspaper clipping from *Ettela'at*, no. 13625 (October 18, 1971): 9; via Wikipedia.

Relations between Tehran and Jerusalem were close, Israeli officials had been invited to the games' preparatory meetings, and the ninety-four-member delegation arrived expecting cordial treatment.[103] It received it, from the state. What it also encountered — across every competition, and at maximum intensity in the football final held at Aryamehr — was a public that did not share the regime's foreign policy. Some 120,000 spectators attended the final, well beyond the stadium's nominal capacity, in an atmosphere the Israeli participants recalled as openly hostile: a helicopter over the team bus, "an Iranian soldier every meter," chants carrying the cadence of Ashura mourning.[104]Iran won 1-0 through an own goal; the Israeli coach summarised the day by saying that his team had lost the match but saved their lives.[105]

The relevance of this to an argument about concrete is not incidental, and it is the reason this case study cannot be assimilated to the others. Shahyad addressed an audience the state had selected in advance. The Tehran Museum of Contemporary Art, examined in section 3.5, addressed one that selected itself. Aryamehr was the only Pahlavi-era structure in this inventory whose function required the assembly of a mass public that could be neither vetted nor curated, and in September 1974 that public used the building to express a position diametrically opposed to the state's. Israeli diplomats spent the following weeks working to suppress the fact — Ambassador Lubrani recommending that the Israeli press be steered towards a positive account, Foreign Minister Allon writing to thank his Iranian counterpart for ensuring that "no element of politics be permitted to intrude."[106] The regime, for its part, was "blind to the rift that had emerged between it and its subjects."[107] A building conceived as an instrument for producing national unity had instead made visible, before an international press corps housed in a purpose-built centre on the same site, that no such unity existed. Hareuveny and Blanga are historians of Iranian-Israeli relations rather than of architecture, and their conclusion — that "the closing whistle of the football match in Aryamehr Stadium was also the closing whistle for Israel in Asia"[108]— is framed as diplomatic history. Read architecturally it says something the diplomatic frame does not capture. The state had built a machine for concentrating a hundred thousand people and directing their attention at a single focal point, and had assumed that the direction of that attention was under its control. The assumption held at Shahyad, where the audience was three thousand and the ceremony forty minutes long. It did not hold in a structure whose entire technical purpose was the aggregation of a crowd. Concrete here did not merely stage authority; it created the conditions under which authority could be publicly contradicted.

103. Hareuveny and Blanga, "The 1974 Asian Games in Tehran," 540.
104. Yeshayahu Feigenbaum, cited in Hareuveny and Blanga, "The 1974 Asian Games in Tehran," 546.
105. David Schweitzer, cited in Hareuveny and Blanga, "The 1974 Asian Games in Tehran," 547.
106. Hareuveny and Blanga, "The 1974 Asian Games in Tehran," 547.
107. Ibid., 530.
108. Ibid., 549.



Figure 3.29. Unidentified photographer. *Shah Mohammad Reza Pahlavi Opening the 1974 Asian Games, Aryamehr Stadium, Tehran*, September 1, 1974. Photograph. Source: Wikipedia.



Figure 3.30. Unidentified photographer. *Ayatollah Khamenei Addressing a Gathering of 100,000 Basij Members, Azadi Stadium (formerly Aryamehr Stadium), Tehran*, October 18, 2018. Photograph. Source: Khamenei Official Website.

What happened to the complex after 1979 confirms the reading rather than complicating it. Renamed Azadi along with the tower at the other end of the same road, the stadium has continued to function as the state's principal instrument for the assembly and address of large publics, and photographs of post-revolutionary gatherings reproduce the Pahlavi-era vantage point with a fidelity that is difficult to read as coincidental: the speaker or the sovereign above, the mass below, the bowl mediating between them.



Figure 3.31. Unidentified photographer. *Aryamehr Stadium after the installation of seats, previously open concrete, mandated by the AFC to enforce modern safety and facility standards*, ca. 2015. Photograph. Source: Stadiums.de [Instagram profile].

Section 3.3 described the survival of Shahyad through renaming, and argued that the durability of reinforced concrete was among the reasons editing proved more economical than demolition. Aryamehr survived by a different mechanism. Shahyad had to be reinterpreted because its iconography was specific; the stadium required no reinterpretation at all, because a hundred thousand seats facing a tribune carry no iconography to reinterpret. Its ideological flexibility is a property of its geometry.

The seats installed half a century later at the insistence of an international federation are the last piece of the argument. What the Pahlavi state built was an expanse of bare concrete terracing on which a crowd distributed itself as a mass, undifferentiated and uncountable — the physical form of the collective the regime wished to address. Numbered seating replaced it with a hundred thousand discrete positions, reducing the nominal capacity to 78,116 in the process. The same structure now holds fewer people and holds them as individuals. Across the four case studies in this chapter, reinforced concrete served as a multiplier of property at Saman, as a hidden armature for a national argument at Shahyad, and as a sculptural medium for cultural institution-building at the Tehran Museum of Contemporary Art. At Aryamehr it did something none of the others required: it produced a public. The Pahlavi state's most ambitious use of the material was also the only one that placed a mass of Iranians in a space designed to register what they thought, and the record of what they thought there in September 1974 is, in retrospect, the most consequential thing the building ever transmitted.

3.5 The Tehran Museum of Contemporary Art: Institutionalizing Culture through Concrete

Someone added yellow pigment to white cement. The decision is small enough to disappear from most accounts of the Tehran Museum of Contemporary Art, and it is the most revealing thing about the building. Kamran Diba's own description of the operation is worth quoting at length, because the reasoning it discloses is not structural at all:

"What I did, which I think was quite unprecedented even globally, was white concrete (white cement) ... we tried to control the color of the concrete, which was unprecedented at that time, because concrete has a hellish quality — the concrete you mix with soil, sand, and gravel — I mean to say it doesn't have a pleasant quality. The way we made it was that we lightened its color, and then I added yellow color to it. This yellow color that we mixed caused it — with the white concrete (white cement) and that sand which was a bit gray — to create a greenish color that is very different, for example, from the prayer hall I built. We made that with regular concrete. That has a bit of roughness ... for the museum and the cultural center, its concrete is with white cement and color. Because of this, it has a certain color continuity with the grass and the environment. It doesn't have a rough and raw state."[109] This is a retrospective account, given half a century after the fact by the building's own designer, and it should be weighed accordingly: no technical documentation consulted for this study independently confirms the mix, the pigment or the claim of priority.

What the recollection does establish beyond doubt is an intention, and the intention is unlike anything encountered in the preceding three case studies. At Saman the concrete frame was a device for multiplying title and was never asked to be looked at. At Shahyad the concrete was covered in Joshaghan marble because it could not be trusted to carry a national argument in public. At Aryamehr it was left where structure required it and its ideological work was done by quantity rather than by finish. Here, for the first time in this chapter, the material is tuned — lightened, pigmented, adjusted against the grey of the local sand until it agrees with the colour of grass. Diba's phrase for untreated concrete is "hellish." An architect who says that about the defining material of his period is telling us that at the museum concrete stopped being an instrument and became a surface with an author.

How a young architect came to be in a position to make that decision is contested, and the contest is more useful to this thesis than a resolution would be. Diba's own account is emphatic and slightly aggrieved: "At that time, nobody accepted me; I was not among the great architects. My ranking in the Plan and Budget Organization was low, and they wouldn't give me important projects."[110] The rest of that account is quoted in full in section 2.2: the museum was his own proposal rather than a programme of the government or the court, four years elapsed before he could secure funding for it, and he describes the whole sequence as exceptional. Set against this, Faramarz Hassan Pour, Miles Lewis and Qinghua Guo state flatly that the museum "was designed and built in 1977 upon the basis of the relationship of Kamran Diba, the architect, with the most influential

109. Diba, interview by the undersigned, June 4, 2026.
110. Ibid.

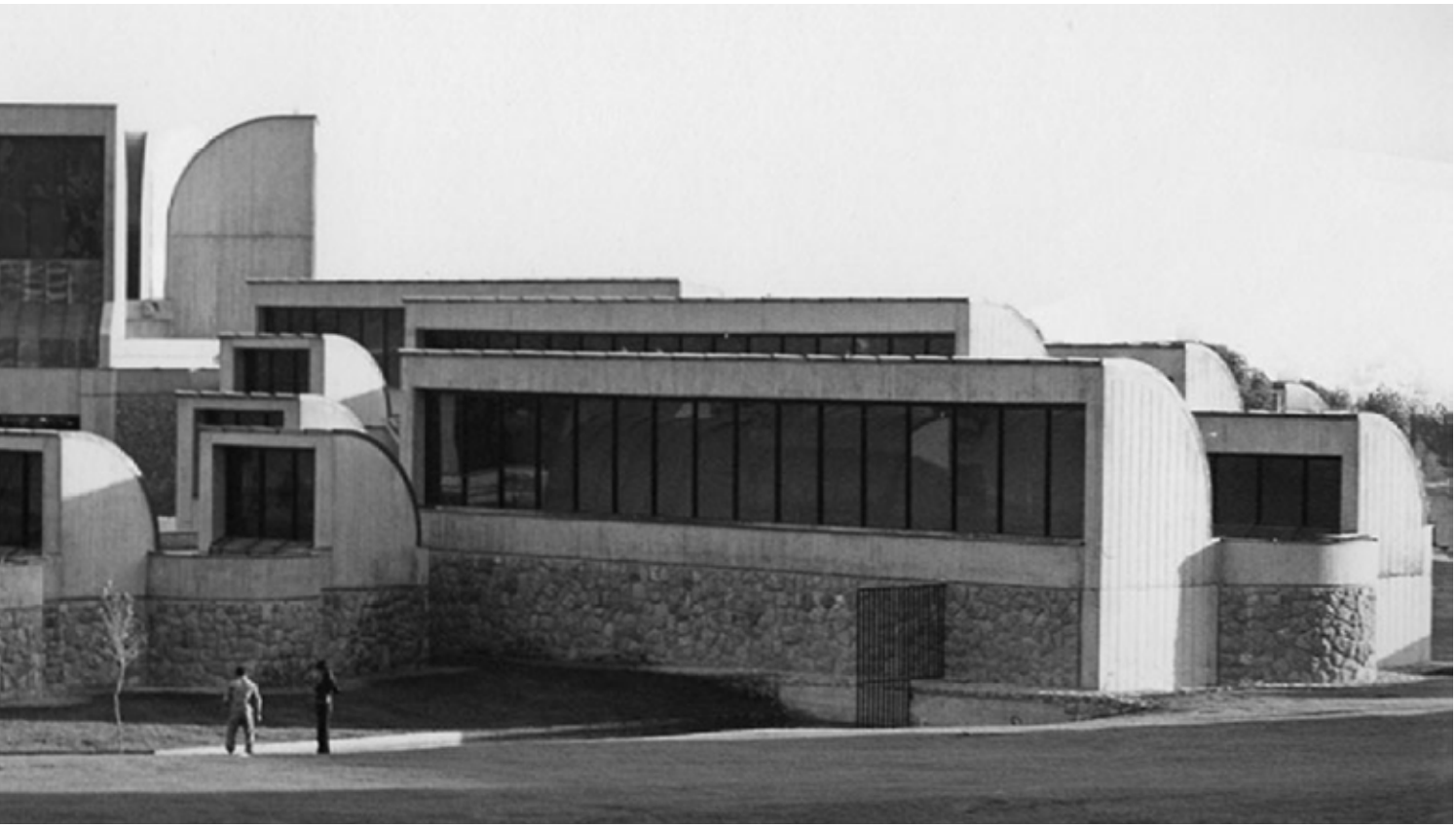


Figure 3.32. Unidentified photographer. *Tehran Museum of Contemporary Art, Tehran*, 1977. Photograph. Source: Aoapedia.ir.

sponsor of modern art in the second Pahlavi government: Diba's cousin Farah Diba, the Pahlavi Queen" — a reading they themselves set against Diba's own position, discussed in section 2.2, that the connection cost him commissions rather than winning them.[111] Two accounts of the same commission, then: one in which the architect fought a low-ranking bureaucratic position for four years, another in which kinship supplied what merit could not. Whatever produced the commission, what was produced was a building of considerable spatial ambition, and the fullest account of it remains Kambiz Navai's analysis for Archnet-IJAR — a scholarly reading, and the one on which subsequent criticism, including criticism of the reading itself, has been built. Navai describes a plan organised as a spiral: seven principal enclosed areas chained in sequence, beginning at a main foyer designated "gallery no. 1," the path "gradually sinking into the ground until it reaches the lower level of gallery no. 1, where it ends," so that the visitor is returned to the point of departure at a different level.[112] The connecting corridors are ramps, and their effect on movement is a designed one: "The succession of galleries and the connecting ramps encourage the visitor to move constantly onward. The space attracts people, and does not encourage returning or leaving the exhibition while only partly visited. In other words, the chained galleries are linked together in a labyrinth that has only limited contact with open space."[113]

A museum that makes leaving difficult is not a neutral container for a collection. Read against the argument of this chapter, the observation matters because it identifies the one thing the museum shares with the stadium: both are buildings that take custody of the visitor's movement. Aryamehr did so by seating a hundred thousand people so that they all faced the same point; the museum does so by making the route one-directional and descending. The scale is incomparable and the register is entirely different, but the underlying proposition — that architecture may organise how a public behaves — is the same proposition, transposed from the political to the cultural sphere. Navai is not uncritical, and the criticisms are worth registering because a reading that only praises would be of little evidentiary use.

111. Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 1.
112. Kambiz Navai, "An Architectural Analysis: The Museum of Contemporary Art, Tehran, Iran," *Archnet-IJAR: International Journal of Architectural Research* 4, no. 1 (2010): 200.
113. Ibid., 202.



The inner courtyard, in his account, is "the result of recessions and projections of the volumes housing the galleries," symmetrical yet possessing "minimum identity, being spontaneous and 'randomly' shaped as if it were the remainder of the space taken away by volumes housing the galleries"; the enclosing walls are almost windowless, the pool small and ringed by stairs, so that "all these factors make one inside the courtyard feel as though s/he were 'outside'."[114] The Sculpture Garden fares no better: separated from the building by a water channel that "cuts them apart further emphasizing their disconnection," lacking paving or seating, "an abridged green space that disapproves of people entering it. It only calls to be 'watched', and its sculptures to be observed from 'the distance', as if it is house to sculptures and not to people."[115]

The exterior walls, closed off and nearly opening-free, are "suggestive of bulky and massive walls of a fortress," and the skylights all face north-east, turning the building away from Kargar Avenue — "the 'symbol of the city and society'" — toward "an indeterminate location in the distance."[116]

The composite picture is of an institution that faces inward and away, admits the public through a single controlled sequence, and holds its own garden at arm's length. Diba's professional reputation, as Navai notes at the outset, rests substantially on "creating public, socio-cultural centers in Iran ... a result of his concern about social matters."[117] The museum, on this evidence, is not the strongest instance of that concern, and the gap between the stated social ambition and the delivered spatial arrangement is not a flaw to be excused. It is a datum about what a state-funded cultural institution in 1977 Tehran could actually be: open to the public in principle, and organised as a protected interior in fact. What the building is made to mean has proved more contested than what it does.

The dominant reading holds that the skylights derive from the badgirs — wind-catchers — of the Iranian desert towns, and that the museum therefore constitutes a synthesis of international modernism with a specifically Iranian spatial inheritance.

114. Navai, "An Architectural Analysis," 202.
115. Ibid., 200.
116. Ibid., 196.
117. Ibid., 194.

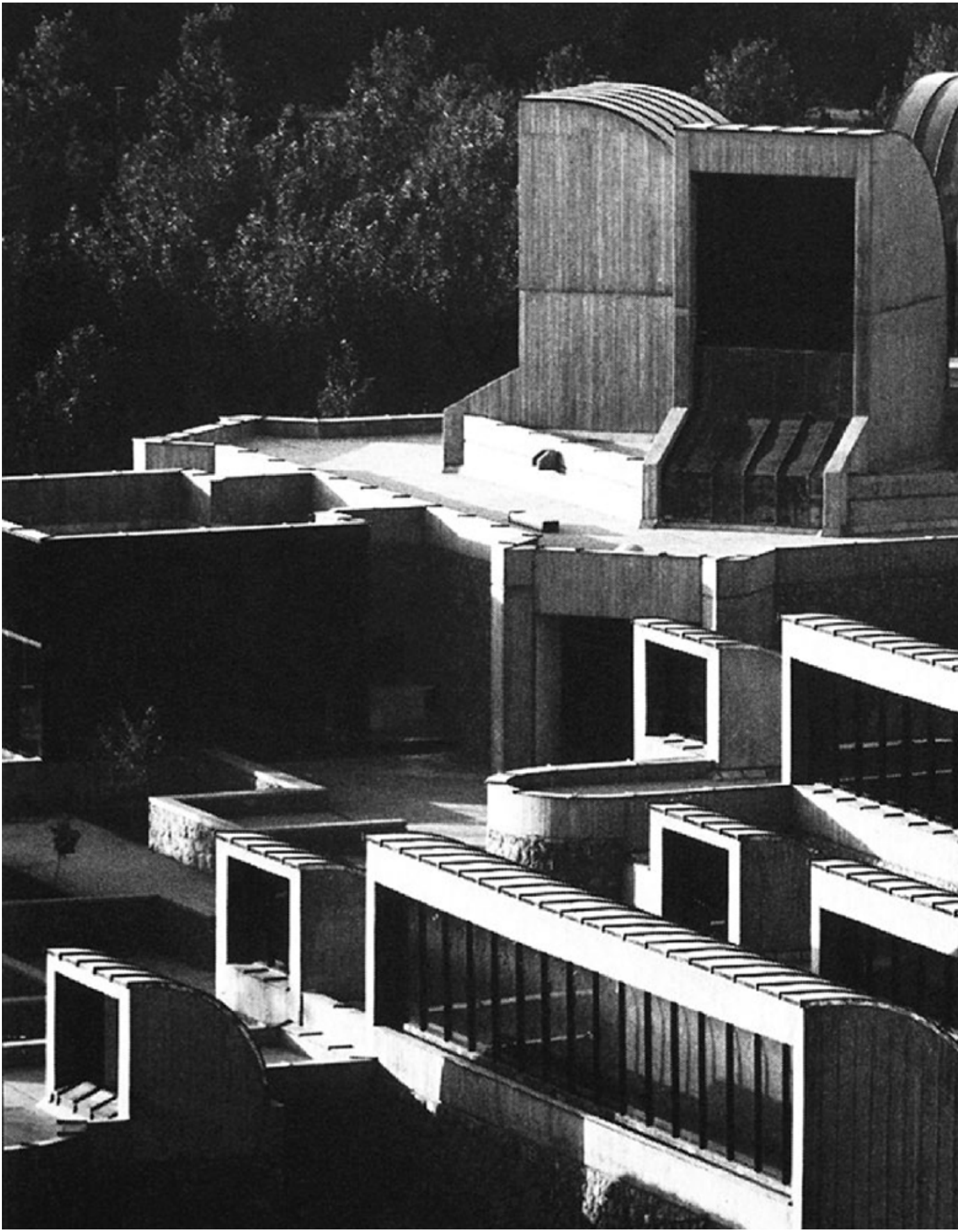


Figure 3.33. Unidentified photographer. *Detail of the Concrete Badgirs (Wind Catchers/Light Scoops) of the Tehran Museum of Contemporary Art*, designed by Kamran Diba, Tehran, 1977. Photograph. Source: Aoapedia.ir.



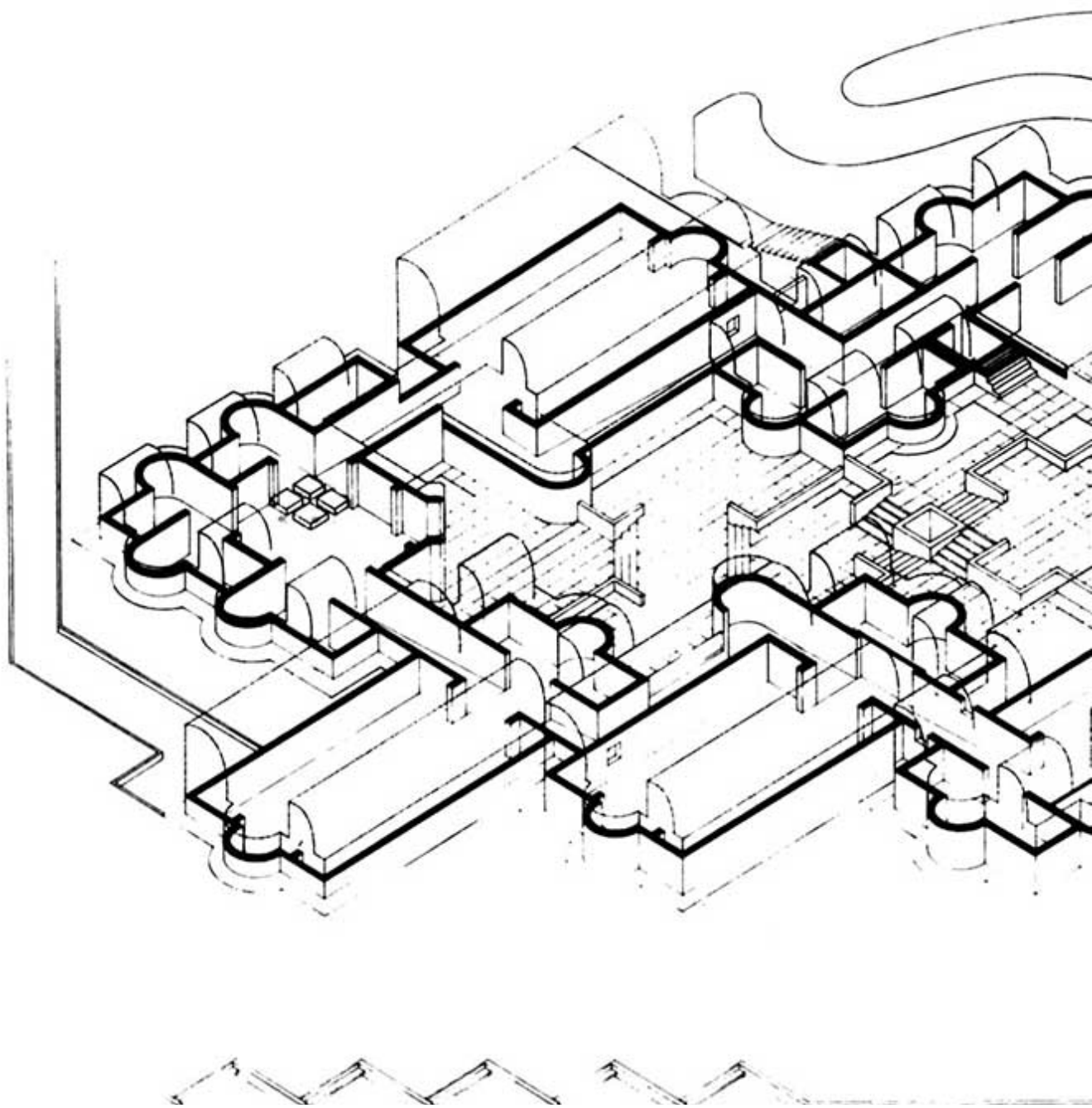


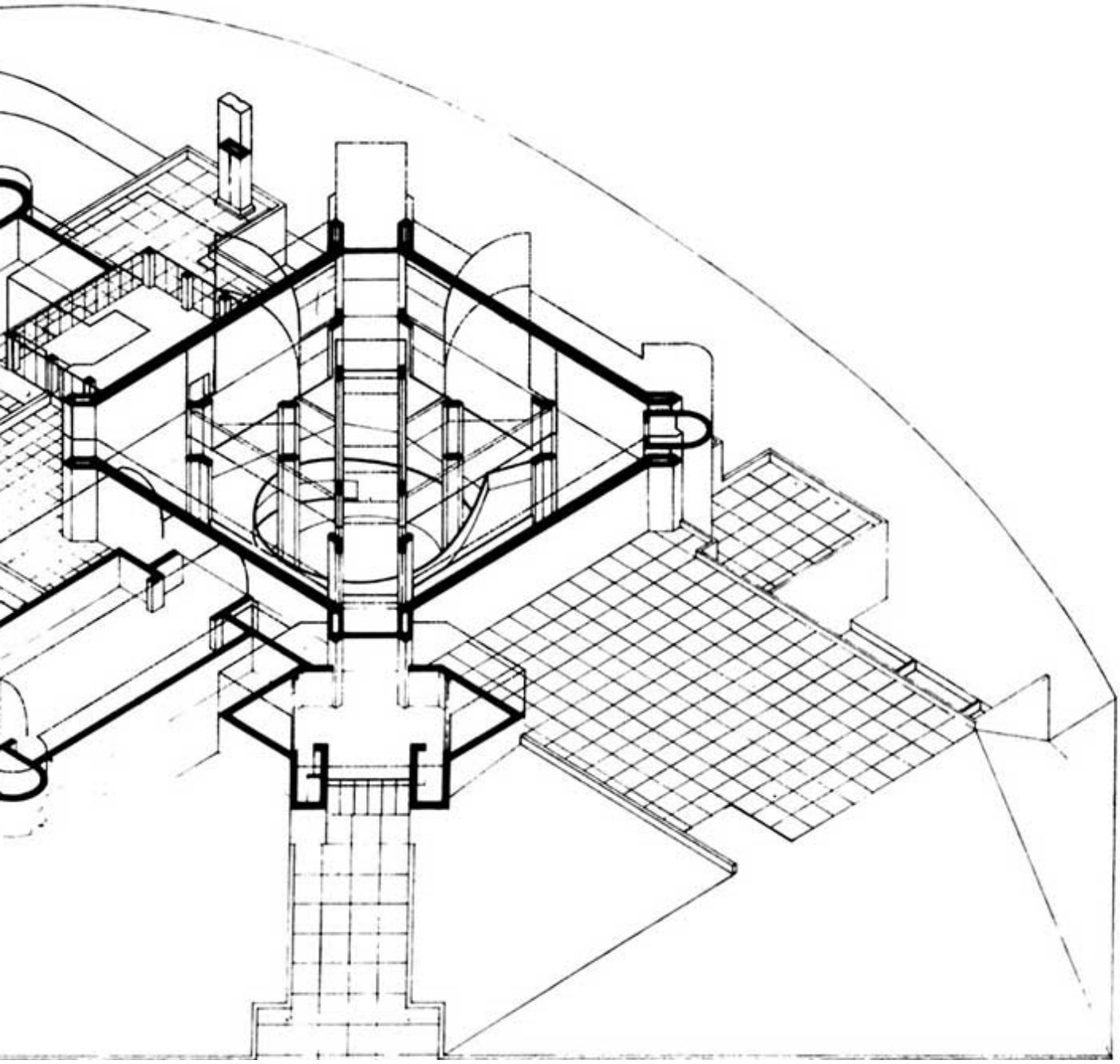
Figure 3.34. Axonometric view of the Tehran Museum of Contemporary Art. Adapted from Negar Shadravan and Bilge Beril Kapusuz Balci, "A Quest for Identity: Remembering Tehran Museum of Contemporary Art (TMoCA)," *Gazi University Journal of Science Part B: Art, Humanities, Design and Planning* 13, no. 1 (2025): 7, fig. 2.

Navai gives the reading in its considered form: the skylight profile recalls the wind towers, and "the gradual sinking of the building into the ground — that actually happens in towns in the hot and arid climate of kavir — makes a gradation of volumes and their topping skylights, reminiscent of building clusters in traditional towns or the traditional urban fabric."[118] Adib Ahmadi and Mohammad Azad Ahmadi, writing in Persian in 2023, reproduce the same reading almost unaltered, describing Diba's work as "symbolic and metaphorical," noting that "the form of the skylights recalls the wind-catchers of Iran's desert regions," and listing among his judicious borrowings from Iranian architecture "the use of coloured concrete in the colour of earth and kahgel."[119]

Against this stands a second-order intervention that is not an account of the building but an account of its critics. Hassan Pour, Lewis and Guo argue that Iranian nationalism has "distorted and emotionally charged Iranian studies" and pushed architectural criticism "towards partiality and Iranian narcissism," and they take

118. Navai, "An Architectural Analysis," 199.

119. Adib Ahmadi and Mohammad Azad Ahmadi, "A Comparative Study of the Architecture of the First and Second Pahlavi Periods from a Semiotic and Semantic Approach (Case Studies: The Museum of Ancient Iran and the Museum of Contemporary Art)," *Journal of Art and Civilization of the Orient* 11, no. 39 (Spring 2023): 17. Translated from the original Persian by the undersigned.



the museum as their principal exhibit: the wind-catcher claim, they contend, has been asserted rather than tested.[120] Their counter-genealogy runs through Josep Lluís Sert, whose Fondation Maeght of 1958 they present as sharing with the Tehran museum its quarry-stone façades, its skylight form and its exposed concrete, and whose quarter-circular skylights recur across his earlier work — the Miró studio, the Braque house, the Boston University campus — so that "it is illogical to assume that Sert suddenly used traditional Iranian architectural elements."[121]

They further report that Diba has himself described the badgir association as originating with an official who, looking at the museum's scale model, remarked that the skylights reminded him of the wind-catchers of Yazd, and that "now, this idea dominates almost every scholarly view."[122] While Diba names Yazd and Kashan specifically as his points of reference, the pipe-shaped badgir form illustrated here — photographed in Sirjan — belongs to the same broader vernacular typology of desert wind-catchers found across central Iran's arid towns. Care is required here about what is being claimed by whom.

120. Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 1.
121. Ibid., 2–3.
122. Kamran Diba, cited in Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 2.

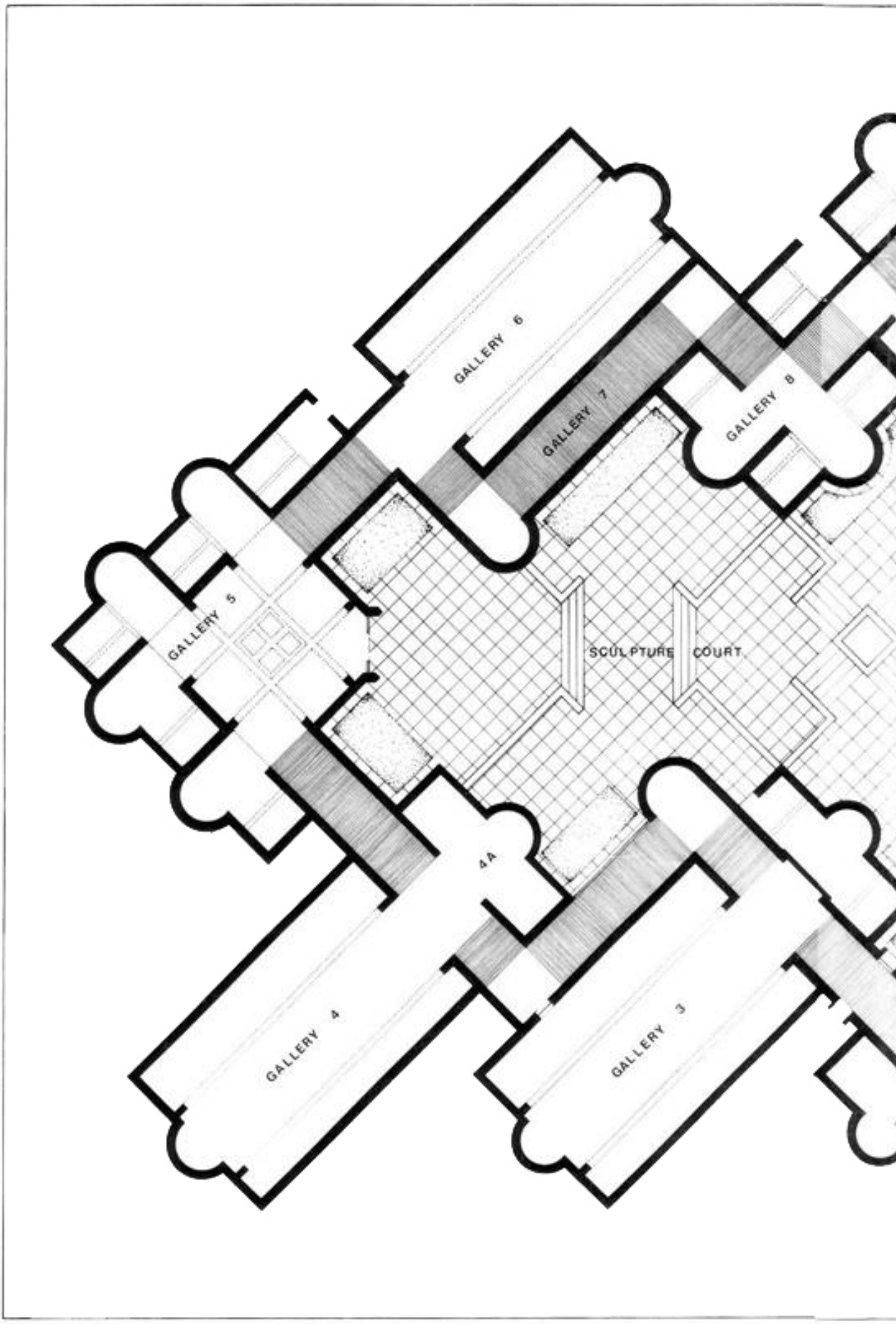


Figure 3.35. Gallery-level plan of the Tehran Museum of Contemporary Art. Drawn by Kamran Diba. Source: Wikimedia.

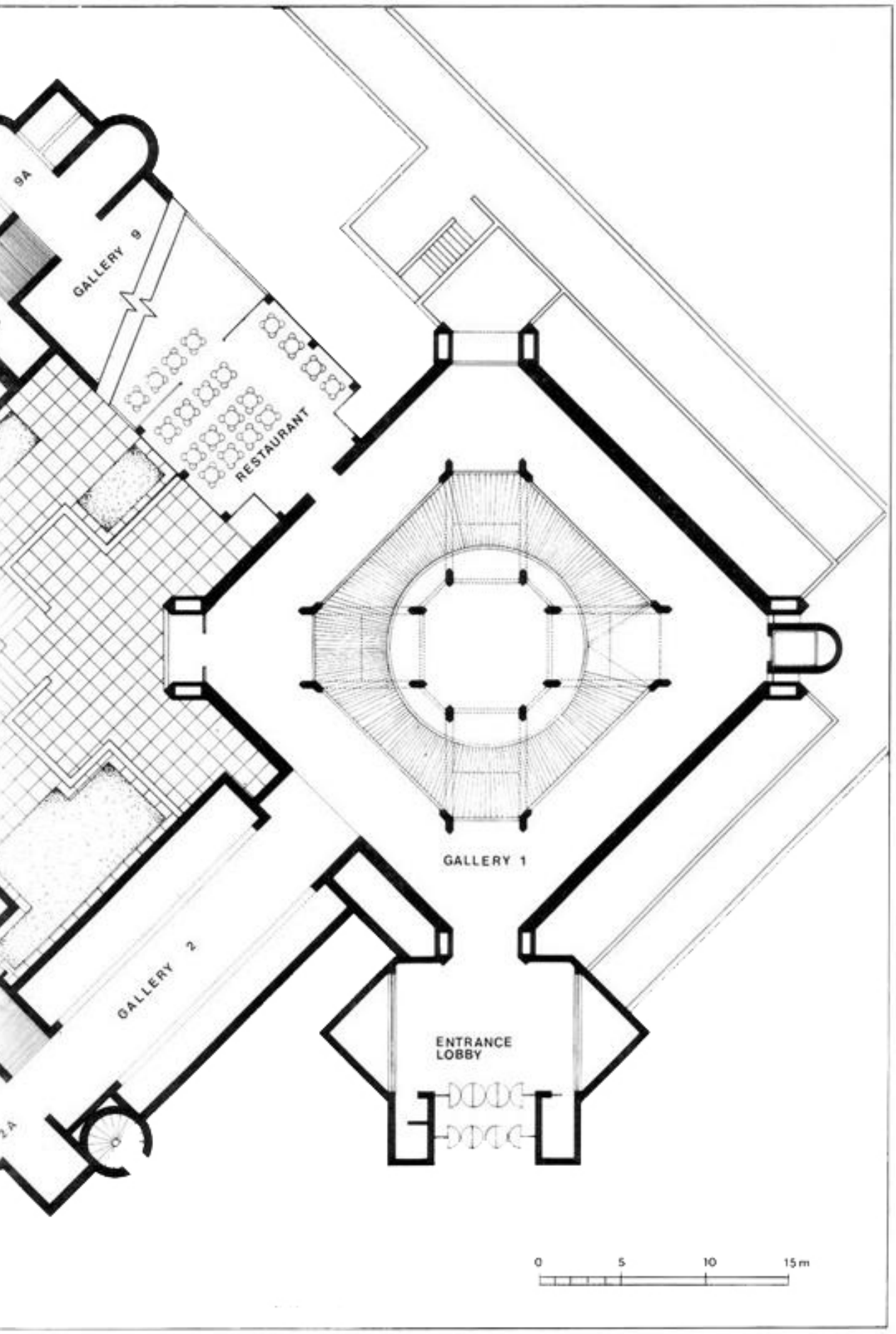

9A
GALLERY 9
RESTAURANT
GALLERY 1
GALLERY 2
ENTRANCE
LOBBY
0
5
10
15 m



Figure 3.36. Pipe-shaped wind catcher (badgir) in Sirjan. Adapted from Khosro Movahed, "Badgir (Wind Catcher): An Example of Traditional Sustainable Architecture for Clean Energy," in *2016 4th IEEE International Conference on Smart Energy Grid Engineering (SEGE)* (IEEE, 2016), 80, fig. 2.



Figure 3.37. Unidentified photographer. *Skylight of the Tehran Museum of Contemporary Art*, Tehran, ca. 2023. Photograph. Source: Neshan.ir.

Hassan Pour and his co-authors are commenting on the reception of the building rather than documenting it, and they read Navai as their principal example of "Iranian romanticism," counting seven occasions on which he posits a link to traditional Iranian architecture.[123] Their evidence for Sert's priority is formal comparison, not archival demonstration, and it does not exclude convergent intent. Nor is their own framing free of position; "narcissism" is a diagnosis, not a finding. What survives the dispute intact is narrower and more useful. Diba wrote in 1980 of "the rich, playful quality of the undulating and volumetric vernacular roofscapes of Yazd, Kashan and other desert towns" as a fascination during design, and has elsewhere named Le Corbusier and Frank Lloyd Wright as the presiding influences, and acknowledged Sert's building at Saint-Paul de Vence as a source.[124] An architect trained in the United States, working in Tehran, drawing on a Catalan modernist working in Provence, and describing his own attention to the roofs of Yazd, is not a puzzle requiring adjudication. It is an accurate portrait of the transnational field this thesis has been describing since section 2.5.

The dispute is nonetheless significant, and its significance lies in what nobody disputes. Whether the skylights descend from badgirs or from Sert, no party to the argument questions that the building is made of reinforced concrete, or that the concrete was left visible, or that this was the right material for a late-Pahlavi cultural institution.

The Iranian-ness of the museum is fought over; its concreteness is treated as self-evident by critics, defenders and the architect alike. The controversy has been conducted entirely at the level of form and citation, and the material — which is the level at which this thesis has argued Pahlavi modernity was most consequentially transacted — has passed unexamined by all sides. That silence is itself a finding about Iranian architectural historiography. Diba's account of how the concrete was actually made is correspondingly valuable, and correspondingly unverified. He describes a construction culture in which "concrete in Iran at that time was shuttered with wood," metal formwork being scarce, and in which the museum's skylights were achieved as shells — "where you give form to concrete; meaning your concrete can be wavy or semi-circular" — a technique he associates with the international fashion for Félix Candela and, later, Saarinen's TWA terminal.[125] The structure is concrete throughout: "our structure, all its pillars, is concrete. Then, in the middle of two columns, we sometimes filled with stone to give it a sense of roughness and variety, so it wouldn't be uniform like a prison."[126] The structural calculations, on Diba's account, were the work of Zareh Gregorian, and the contractor was a firm he names only as Pourfathi.[127] He also describes a small number of American colleagues in the office handling project management, and staff of other nationalities, engaged against the shortage of personnel he recalls in the passage quoted in section 1.2.[128] The prison simile deserves a moment.

123. Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 1.
124. Kamran Diba, *Kamran Diba: Buildings and Projects* (Stuttgart: Hatje Cantz, 1980), 34; and Kamran Diba, "Janet Rady in Conversation with Kamran Diba," *Contemporary Practices: Visual Arts from the Middle East*, no. 5 (2010), both cited in Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 2–3.
125. Diba, interview by the undersigned, June 4, 2026.
126. Ibid.
127. Ibid.
128. Ibid.

It is an aesthetic anxiety about repetition, and it identifies exactly the quality that made concrete useful to the state elsewhere in this chapter — the capacity to produce a great deal of identical building quickly. Diba's stone infill is a deliberate interruption of that capacity. Where the Aryamehr terraces gained their effect from uniformity at scale, and Saman's precast panels sold themselves on factory consistency, the museum's designer spent effort making his concrete less regular. The material is the same; the political economy it serves has changed. What no source consulted for this study documents is who built it. Navai names the architects — Diba with Anthony J. Major and P. Gupta, at DAZ Architects, Planners and Engineers — and the constructor as RAS Construction Co., against a site area of 16,000 square metres and a floor area of 5,000, with completion dated 1967–1977.[129] Diba names a contractor and a structural engineer. Beyond this the workforce is again unrecorded, exactly as at Saman and at Aryamehr. Diba's characterisation of that workforce, quoted in full in section 1.4 and taken up again in section 3.2, describes men displaced by land reform who were learning the trade as they worked."[130] A building whose finish depended on controlling the colour of a mix, and on shells formed in timber, was executed by labour of whom the record preserves nothing but a general description supplied fifty years afterwards by the architect. The precision was documented; the hands were not. Around this building the state assembled a collection, and the collection is where the museum's political function becomes legible.

129. Navai, "An Architectural Analysis," 194.
130. Diba, interview by the undersigned, June 4, 2026.

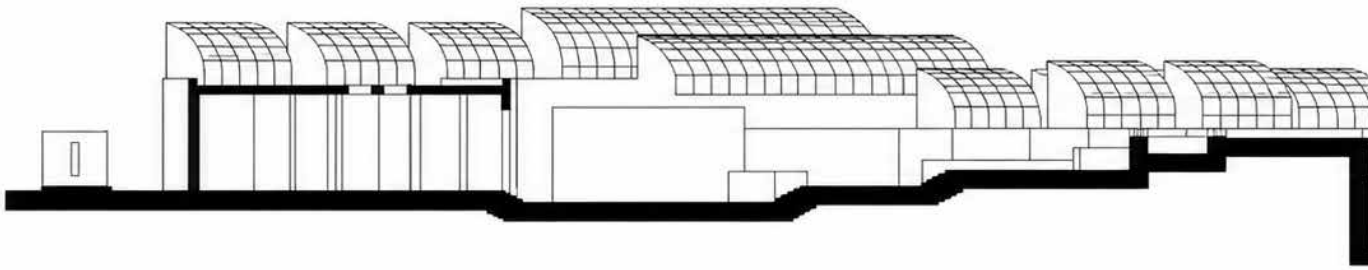


Figure 3.38. Section of the museum through the main foyer and courtyard. Adapted from Navai, "An Architectural Analysis," 204, fig. 18; originally published in Diba, Buildings and Projects, 41.

Diba, who served as its director, has recalled acquiring "some very good contemporary sculptures by Calder, Giacometti and Moore," and spending, under his directorship and with the Queen's support, "a careful $4½ million for paintings and sculpture."[131] Section 2.2 has already established the character of that programme and its Warhol acquisitions; what needs adding here is the analytical frame that Katrin Nahidi supplies.

Nahidi argues that Cold War capitalist ideology promoted abstract art as the emblem of an allegedly universal culture, that modern abstraction was "turned into an ideological weapon to construct a common Western identity that traversed countries and national borders," and that Iran's appreciation of modernist art "served as confirmation that it had the symbolic capital of 'taste' necessary to recognize the universal language of Western modernism."[132] Reading Bourdieu, she concludes that in Iran's case "culture not only functions in the realm of class distinction within a national society but can also be applied as political currency on a higher level to emulate Western nation-states and to move up in the global world order," and that this image "was also deployed globally in foreign policy as a vital sign of the Pahlavi monarchy's modernity."[133] Placed beside the argument of section 3.4, this yields a precise division of diplomatic labour between the two state spectacles of the decade.

131. Kamran Diba, cited in Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 1.
132. Katrin Nahidi, The Cultural Politics of Art in Iran (Cambridge: Cambridge University Press, 2023), 4–5.
133. Ibid., 5.

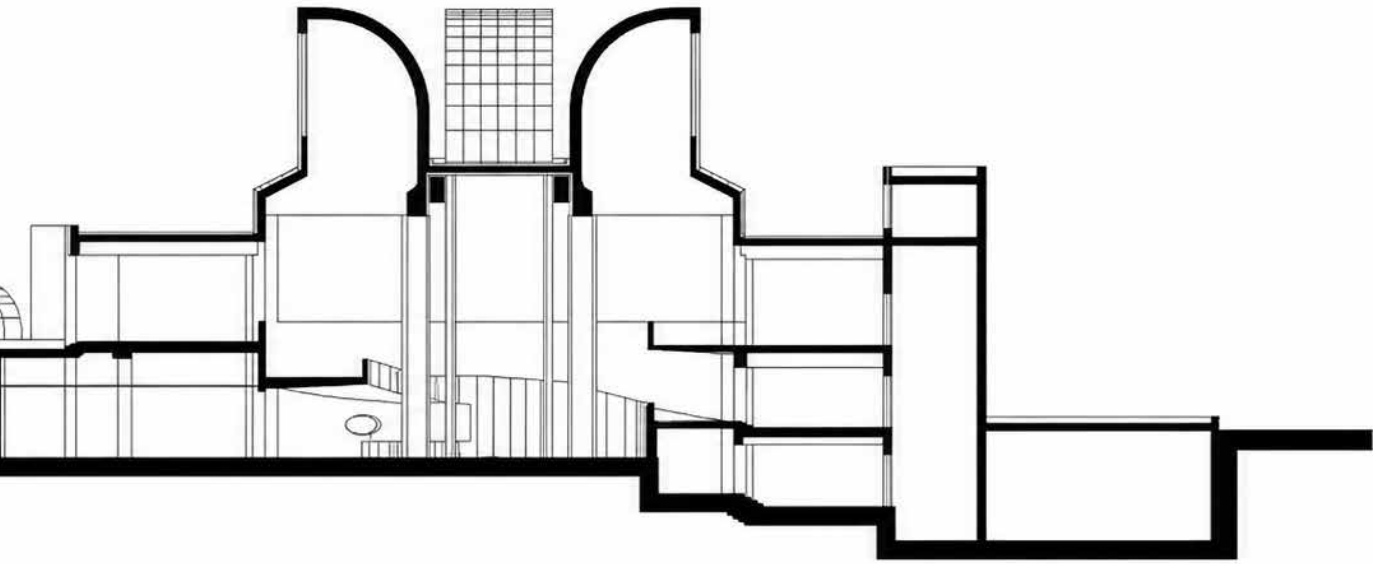




Figure 3.39. Amirhossein Fasahat. Interior view of the concrete skylight/badgir structure (the ramp), Tehran Museum of Contemporary Art. Photograph by the undersigned, June 24, 2021.

The Aryamehr complex addressed governments through quantity and logistics — a hundred thousand seats, a press centre, twenty-five delegations — and made its claim in the language of capacity: Iran can host. The museum addressed a narrower and more consequential audience in the language of discernment: Iran can judge. Hosting can be bought with oil rent, and the sources are explicit that it was; taste cannot be bought in the same way, which is exactly why a collection assembled with oil rent was worth assembling. Hassan Pour and his co-authors make the financial mechanism plain, observing that "the huge income from the increased price of oil in the 1970s created an exceptional opportunity to employ young foreign architects and engineers, who had no inhibitions in importing technology, materials, and architectural styles from the United States and Europe."[134]

The museum imported all three at once, and then wrapped them in a pigmented concrete argued to be Iranian. The institution outlived the state that funded it, and continues to perform a version of the same work. Nahidi notes that the exhibition activities of the Tehran Museum of Contemporary Art today repeat the historiographical paradigm they inherited, in which modernist Iranian art functions as "a visual

134. Hassan Pour, Lewis, and Guo, "Criticising Architectural Criticism," 1.

manifestation in memorializing prerevolutionary Iran as a westernized and secularized country."[135] Section 3.3 described Shahyad surviving 1979 through renaming and section 3.4 described Aryamehr surviving through the ideological neutrality of its geometry. The museum survived by a third route, which is that its content was too valuable to destroy and too compromising to display, and its architecture was never dynastic enough to require editing.

Diba's own retrospective judgement on his standing is relevant to this. In the recollection quoted in full in section 1.5, he places these buildings a single year before the revolution, describes an Iranian architectural community that did not know them, and dates their recognition to after his own emigration.[136] A canonical building of the Pahlavi era, on its architect's account, became canonical only after the era ended. Reinforced concrete performed a different office in each of the four buildings examined in this chapter. At the Saman Towers it was a multiplier, converting a small plot into saleable title and never asked to declare itself. At Shahyad it was an armature, structurally indispensable and visually suppressed beneath a stone with an unbroken Iranian genealogy.

At Aryamehr it was bulk, deployed where earth could not carry the load and made politically effective by sheer quantity. At the Tehran Museum of Contemporary Art it was, for the first and last time in the Pahlavi inventory, a finish — a material whose colour an architect adjusted against the colour of grass, whose repetition he broke with stone infill so the result would not read as a prison, and whose exposure was itself the argument. The state got, in exchange, an institution that could be shown to foreign visitors as evidence that Iranian modernity was a matter of judgement rather than of purchase. That the building's Iranian-ness has been disputed ever since, while its concreteness has never been questioned by anyone, suggests which of the two claims the material was actually able to sustain.

135. Nahidi, The Cultural Politics of Art in Iran, 5.
136. Diba, interview by the undersigned, June 4, 2026.

04

Conclusion

4.1 Audience and the Assignment of Meaning

The Introduction's account of the thesis's structure set out the four case studies as a test rather than as illustration, and the difference is not rhetorical: a test can return a result its designer did not want. The proposition under test was given its fullest formulation at the end of section 2.4 — that reinforced concrete carried no political meaning of its own, that this indeterminacy was precisely what made it useful, and that every institution in a fragmented procurement field could therefore load the material with whatever meaning its own commission required. Four buildings, four commissioning channels, four assignments. The Saman Towers came through a family and market network, Shahyad through a state competition whose shortlist the monarch personally converted into a decision, Aryamehr through demonstrated technical competence joined to a foreign partnership, and the museum through an architect's four-year campaign to fund a proposal nobody had asked for. Section 3.5 closed by naming what the material was made to do in each: multiplier, armature, bulk, finish.

Commissioning explains the assignment. It does not explain whether the assignment held.

The variable that decides that question runs across all four cases and was never isolated in Chapters 1 or 2, because it only becomes visible once the buildings are set beside one another. Every one of these structures was built for somebody to see, and the four somebodies were not comparable. Shahyad's inaugural audience was three thousand people, sorted into more than a dozen categories with scheduled arrival times, assigned positions and departure sequences, watching a ceremony that lasted forty minutes — and behind them, a second audience of roughly a billion, reached through 1,600 journalists filing into eighty-two countries and thirty-three languages. The physical audience was vetted. The larger one never touched the building at all; it received a photograph, and a photograph cannot answer back. Nowhere in the Pahlavi inventory was the assignment of meaning more secure, and nowhere was the audience further away.

The museum reversed the scale without loosening the control. Its public selected itself, arrived in small numbers, and was then taken into custody by the plan: Navai's account in section 3.5 describes chained galleries linked in a labyrinth with only limited contact with open space, a route that descends and returns the visitor to the point of departure at a different level, and a spatial logic that discourages leaving an exhibition only partly seen. A self-selecting audience walking a one-directional route is not a public in any politically demanding sense. It is a constituency, and the state acquired one — an institution that could be shown to foreign visitors as evidence that Iranian modernity was a matter of judgement rather than of purchase.

Saman is where the distinction between the people who used a building and the people it addressed becomes impossible to ignore. Two towers, twenty-two storeys, a few hundred households, three lifts of which one was designated for goods and servants. The number of Iranians who ever entered the building was trivially small. The number who read about it in Khandaniha and Ettela'at was not, and the ideological work of the Saman Towers was conducted almost entirely in print — the panel described through its European and American pedigree, the ten-day floor cycle offered

as proof of national capacity, the project turned into a rebuke of the state's own housing programme. That audience answered back. Section 3.2 established that by 1971 public criticism of the towers' class character was widespread enough that the country's most-read weekly felt obliged to print a rebuttal, and that the rebuttal had to invert the developer's own stated intention, since Ebtehaj had described the affluent as his market three years earlier without embarrassment. The assignment survived, but it required maintenance, and the maintenance had to be performed in public.

At Aryamehr it could not be performed at all. The complex was the only structure in the inventory whose function required the physical aggregation of a mass public that could be neither vetted nor curated, and in September 1974 that public used the building to state a position diametrically opposed to the state's, in front of an international press corps housed in a purpose-built centre on the same site. Everything the state had built into the bowl worked exactly as designed — a hundred and twenty thousand people concentrated, oriented, and directed at a single focal point — and the direction of their attention turned out not to be a property the concrete conferred. The regime's response was diplomatic damage control conducted through foreign ministries, because there was no rhetorical instrument available for revising the meaning of something a hundred thousand people had already witnessed.

Set the four in order of the audience's physical proximity to the building and the result is a gradient, not a set of variations. Where the audience was distant and mediated, the assignment held completely. Where it was small and self-selecting, it held. Where it was a general readership addressed at second hand, it held under contest and required active repair. Where it was assembled in the building at scale, it failed. The claim tested in Chapter 3 therefore survives, and it survives amended: the fragmented procurement field does allow every institution to load concrete with the meaning its commission requires, but the loading is provisional. Assignment is an act performed by an institution; ratification is an act performed by an audience; and the four case studies show these coming apart in exactly the situation where the state had invested most heavily in their coincidence. Indeterminacy is what let the Pahlavi state say anything it liked with concrete. It is also what left the material unable to enforce the statement.

4.2 Four Modes of Silence

Not one of the four buildings has a documented workforce. That much was reported case by case in Chapter 3 and the temptation is to read it as a single absence repeated four times, which it is not. Each building is silent about its labour in a different way, and the differences are not accidental: they follow from the documentary genre through which each project was recorded. The promotional weekly, the professional journal, the state's own film and photography unit and the architect's memory produce four distinct shapes of omission.

At the Saman Towers the record simply does not contain the workforce. Section 3.2 established what the contemporary press did name — the client, the architect, the prime minister who attended the groundbreaking, the licensing arrangement behind the panels, the number of days required per floor — and what it did not: it did not name, count, describe or photograph a single worker.

This is silence by non-recording, and it has a transmission mechanism attached to it. Later scholarship, working from that same press, inherited the omission, which means the gap is not merely a Pahlavi-era artefact but a live property of the historiography, reproducing itself each time a new account is written from the newspapers. The building's own historiography reproduces the hierarchy the building embodies.

Shahyad is the opposite operation, and more revealing for it. The *Honar o Me'mari* account examined in section 3.3 celebrates the craft at length and in detail — coordinates derived from arch formulas, entrusted to the Industrial Management Organization, computed into bounding volumes, converted into large-scale wooden templates, handed to master stonemasons who carved warped surfaces by hand. Every stage in that sequence is named and credited except the last. Ove Arup is named, Duncan Michael is named, the Industrial Management Organization is named, the contractor and its executive director are named. The masons appear as a category. Manual skill is admitted into the account of the monument precisely to the extent that it can be presented as the executant of a computation performed elsewhere, which is silence achieved not by omission but by the collective noun.

The third mode requires abandoning the assumption that documentation and visibility are the same thing. The Aryamehr site was filmed and photographed extensively, by the state, for the state's own purposes, and section 3.4 established that the resulting archive does not lack images of men at work. It is a record of machinery, formwork and orchestrated sequence in which the people present appear as operatives within a process rather than as its authors. What is missing is not the image but the vocabulary — a way of describing the site as a place where people worked rather than as a place where a schedule was executed. A worker can be photographed a hundred times and remain undocumented.

The museum produces the fourth, and the fourth is the one that ought to trouble a historian most. Section 3.5 records that beyond the architects, the constructor and a structural engineer, the workforce is unrecorded; what survives is a general characterisation supplied fifty years afterwards, by the architect, in an interview conducted for this study. Men displaced by land reform, learning the trade on the site, some of them from Baluchestan and Pakistani Balochistan with no Persian. That description is the most substantial account of construction labour anywhere in this thesis, and it exists because one participant was alive in June 2026 and was asked a question. Nothing in the archive produced it. A building whose finish depended on controlling the colour of a mix and on shells struck from timber formwork was executed by people whose only trace is a sentence spoken half a century later — which is not a documentary record but a contingency, and one that will not be available to the next study.

These four modes coexist rather than succeed one another; the buildings run 1968, 1971, 1974, 1977, and the record does not improve. What produced them is the structure identified in section 2.4, where the separation of ownership of the image from ownership of the execution was traced to the procurement system itself. A dam, a stadium or a tower could be credited to national modernization at the ribbon-cutting while its production stayed distributed across a foreign contractor, a licensed panel factory, a private consultancy and a subcontracted workforce, none of which appeared in the photograph.

Figure 2.9 makes the arrangement legible in a single frame: the Shah, the financier, and a future city reduced to a scale model, with the site and everyone on it outside the picture. A system that distributes production distributes accountability, and the distribution is exactly what a documentary record registers as absence. The silence is not a failure of the archive. It is the archive working as designed.

This study is implicated in what it has just described. The interview conducted with Kamran Diba in June 2026 has been used throughout as a content source — for the composition of the workforce, for the funding history of the museum, for design decisions no drawing preserves — and its evidentiary value in each of those places belongs to the section that cites it. What it demonstrates procedurally is narrower, and less comfortable. Every partial break in the four silences catalogued above came from the same place: not from a holding, a file or a photograph, but from a conversation held half a century after the events with a single surviving participant. What produced that material was not an archive. Section 3.5 records the effort made to find one: the collections this research could reach preserve the architects, the constructor, and a structural engineer, and stop there. That is a statement about the sources available to this study, not about the totality of what survives. Iranian institutional holdings that this research could not consult may well contain payrolls, site correspondence, or contractor records that would name the men in question, and section 4.4 treats whether they do as a genuinely open question. What can be said is narrower. Within the record this thesis was able to assemble, the workforce appears nowhere, and the record itself offers no evidence from which those workers could be identified. The description exists because a conversation took place in June 2026, not because a document was located. Testimony of this kind does not correct the pattern set out in this section. It is the clearest exit this research found from that pattern, and whether a better one exists in an archive this study could not reach is a question section 4.4 leaves open.

4.3 The Collection After 1979

Section 2.2 left an obligation open. The Warhol portrait of the Empress, purchased under her own patronage, was identified there as the acquisition through which the museum's political logic reads most clearly — an internationally legible contemporary idiom turned onto the dynasty's own image, cultural diplomacy conducted in the register of collecting. What happened to those objects after January 1979 was deferred to this chapter, and it is deferred no longer.

When the royal couple left, the museum moved its Western holdings — some fifteen hundred works — into a basement vault, where much of the collection stayed for decades, withheld to avoid the appearance either of deferring to Western taste or of honouring a deposed dynasty. The Empress's Warhol was among the few objects not to survive intact, having been slashed; the sources cited in section 2.2 disagree about when. As the collection has resurfaced over the past decade, the Pahlavi portraits have been among the last works to come back up. What became of the Shah's portrait is not established by any source consulted for this study, and this conclusion does not resolve what the evidence will not support. The architectural consequence is worth stating precisely, because it is the point at which the collection's afterlife stops being an art-historical footnote and becomes a fact about the building.

Diba designed a museum that takes custody of movement: a descending spiral, chained galleries, ramps that carry the visitor downward and return him to the foyer at a lower level. After 1979 the building performed that operation on the collection instead. The ramp that had been built to bring a public down into the galleries brought fifteen hundred paintings down into a vault, and for most of them the return journey took thirty years or more. A circulation device became a storage device without a single alteration to the plan. The museum that Chapter 3 read as an instrument for organising how a public behaves turned out to be equally serviceable as an instrument for ensuring that no public behaved in front of certain objects at all.

Section 3.5 argued that the museum survived the revolution by a route unavailable to the other three buildings: its contents were too valuable to destroy and too compromising to display, and its architecture was never dynastic enough to require editing. The vault is where those two conditions were reconciled. A successor regime that rejected everything the collection had been assembled to argue nevertheless became its custodian, insured it, conserved it, and eventually began showing it — which means the Pahlavi cultural claim has been preserved for half a century at the expense of the state that overthrew it. The limits of that custodianship showed in 2016. Sixty works had been selected for exhibition at Berlin's Gemäldegalerie, negotiated at ministerial level and announced as a gesture of cultural diplomacy; the Iranian export licence was never issued and the show was cancelled, so that a collection assembled to make Pahlavi Iran legible abroad became one the successor state would not permit to leave the country.[1] Shahyad survived through renaming, Aryamehr through the ideological neutrality of its geometry, the museum through the neutrality of what it was made of. The property that made reinforced concrete useful to the Pahlavi state — that it would carry any meaning assigned to it and insist on none — is the same property that carried these buildings intact through the collapse of the regime that built them. A material that argues for nothing can be convicted of nothing.

4.4 Directions for Further Research

Table 3.1 mapped ten projects and this study examined four. The Farah-Abad Stadium, the Management University, the ASP and Eskan towers, the Niavaran Cultural Centre and the thirty-odd slabs of Ekbatan were placed in the frame in order to give the four case studies a field to be drawn from, and each of them would test the audience argument advanced above under conditions this thesis did not create — Ekbatan in particular, where a concrete mass-housing programme addressed a population that lived inside it permanently rather than visiting it once. The second opening is chronological. This study stops at 1979 by design, and the epilogue below is not an exception to that. The post-revolutionary careers of these buildings — renaming, reprogramming, the substitution of one ceremonial public for another beneath the same terraces — constitute a separate history with its own documentary problems. The third is the one section 4.2 makes unavoidable. If the official record was configured to leave labour outside the frame, the worker's voice will not be recovered by reading the official record more carefully. It would have to come from elsewhere: contractor payrolls, industrial and site photography made for technical rather than promotional

1. Hili Perlson, "Berlin Scraps Highly Anticipated Tehran Museum Show," *artnet News*, December 27, 2016; Agence France-Presse, "Germany Says Had to Cancel Show of Iran Shah's Art Trove," republished in *Gulf News*, September 16, 2018.

purposes, union and guild records, and oral history conducted while participants remain alive. Whether such material survives in Iranian archives is unknown to this study and would be worth establishing before the question closes itself.

These three openings are not separate agendas. Each pushes the argument of section 2.4 across a boundary this study drew for reasons of scope rather than of principle — more buildings, so that the audience gradient can be tested where the field is wider; more time, so that the assignment of meaning can be watched changing hands rather than only holding or failing; more of the record, so that a fragmented procurement system can be read from below rather than from ministerial correspondence and the illustrated weekly. Indeterminacy and fragmentation were established here across ten mapped projects, four of them analysed, thirty-eight years, and an archive assembled by the parties with the most to gain from how it was assembled. Where the argument breaks will be found by whoever works outside those constraints. One boundary has already been crossed, by means that had nothing to do with research design.

Epilogue: A Note on 2026

This thesis was researched and substantially written before the war of 28 February to 8 April 2026, and its analytical scope ends in 1979. What follows is a documentation note rather than an argument:

three of the four case-study buildings were affected by the conflict, and a study of them completed in 2026 that did not record the fact would be misleading to any reader consulting it later.

The Aryamehr Sports Complex, renamed Azadi, was struck in the airstrikes of 5 March 2026.[2] The 12,000-capacity indoor hall, built by Abdol-Aziz Farmanfarmaian for the 1974 Asian Games, was destroyed; adjacent structures within the complex were reported damaged or levelled, including buildings near the swimming pool.[3] Reports consulted do not establish the condition of the main stadium bowl itself. Strikes in the western Tehran district around Shahyad, renamed Azadi, were photographed on 10 March 2026; damage to a café-gallery within the tower's cultural complex was reported separately by Iranian sources.[4] The Tehran Museum of Contemporary Art reported no physical damage; it closed during the bombardment, moved to emergency protocols for the protection of its collection, and reopened in May 2026 with a rotating programme titled *Art and War* drawn from its own holdings.[5] The condition of the Saman Towers is not established by any source consulted. Whether monuments built to carry an ideological argument acquire a further one through their destruction is a question this thesis is not equipped to answer, and it belongs to a study that begins where this one stops.

2. "Tehran Sports Complex Damaged: Historic Azadi Complex Hit as Conflict Impacts Cultural Landmarks," *CGTN*, April 5, 2026.
3. "US-Israeli Strike Destroys 12,000-Seat Azadi Stadium Hall in Tehran," *Tasnim News Agency*, March 5, 2026.
4. "Explosive Blasts from Attacks Cause Damage to Tehran's Azadi Tower," *WANA (West Asia News Agency)*, March 13, 2026; Maziar Motamedi, "'Our Hearts Were Shaking': Tehran Endures Night of Heavy Israel, US Bombing," *Al Jazeera*, March 10, 2026.
5. Associated Press, "An Iranian Museum Holds a Rare Exhibit of American Art, Reflecting on War," *ABC News*, May 8, 2026; "Still in 'War Mode': Tehran Museum of Contemporary Art Reopens with Exhibitions about Conflict," *The Art Newspaper*, May 14, 2026.

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