THE HISTORICAL EVOLUTION OF IRAN'S NUCLEAR PROGRAMME AND THE ROLE OF THE UNITED STATES

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Abstract: The modern history of Iran's nuclear enterprise spans 7 decades and moves through successive regimes, regional upheavals, and shifting global norms. This article recounts that trajectory, from the first glimmers of atomic modernity under Mohammad Reza Shah in the 1950s, through the disruptive rupture of the 1979 Islamic Revolution, to the program's post-revolutionary reassessment and gradual rebirth, while foregrounding a paradox often underplayed in public discourse: the United States, together with key European partners, served as the early enabler and practical "midwife" of Iran's nuclearization even as it later emerged as the program's most consequential opponent. Yet the same program collided with American proliferation anxieties, especially over reprocessing uranium enrichment and potential weaponization, producing a pattern of contractual enthusiasm and strategic suspicion. Following 1979, the Islamic Republic initially repudiated what it cast as a Western-dependent, extravagantly costly symbol of Pahlavi excess, only to later revive elements of the project in pursuit of energy diversification, technological autonomy, and national pride. The analysis underscores that Iran's nuclear story is ultimately political rather than purely technical-structured by perceptions of vulnerability, memories of foreign intrusion, and the relentless search for status in a hostile neighbourhood. Understanding that political core is key to grasping why the dispute has proven so durable and why the United States remains central to any lasting resolution of Iran's proliferation.

Keywords: *Iran Nuclear Program, Atoms for Peace, U.S.-Iran Nuclear Cooperation, Cold War Nuclear Policy, Nuclear Diplomacy*.

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İRAN'IN NÜKLEER PROGRAMININ TARİHSEL EVRİMİ VE AMERİKA BİRLEŞİK DEVLETLERİ'NİN ROLÜ

Öz: İran'ın nükleer girişiminin modern tarihi 70 yılı aşkın bir süreyi kapsamakta ve ardı ardına gelen rejimler, bölgesel ayaklanmalar ve değişen küresel normlar boyunca ilerlemektedir. Bu makale, 1950'lerde Muhammed Rıza Şah döneminde atomik modernliğin ilk belirtilerinden, 1979 İslam Devrimi'nin yıkıcı etkisine, programın devrim sonrası yeniden değerlendirilmesine ve kademeli olarak yeniden doğuşuna kadar olan bu süreci anlatırken, kamuoyunda sıklıkla göz ardı edilen bir paradoksu da ön plana çıkarıyor: Amerika Birleşik Devletleri, önemli Avrupalı ortaklarıyla birlikte, İran'ın nükleerleşmesinin ilk aşamalarında destekleyici ve pratik "ebesi" rolünü üstlenirken, daha sonra programın en önemli rakibi olarak ortaya çıkmıştır. Ancak aynı program, özellikle uranyum zenginleştirme ve potansiyel silahlanma konusunda Amerikan nükleer silahlanma kaygılarıyla çatışarak, sözleşmeye dayalı coşku ve stratejik şüphe modelini ortaya çıkardı. 1979'dan sonra, İslam Cumhuriyeti başlangıçta Batı'ya bağımlı, aşırı maliyetli bir Pehlevi savurganlığı sembolü olarak gördüğü şeyi reddetti; ancak daha sonra enerji çeşitlendirmesi, teknolojik özerklik ve ulusal gurur arayışı içinde projenin unsurlarını yeniden canlandırdı. Analiz, İran'ın nükleer öyküsünün nihayetinde tamamen teknik olmaktan ziyade politik olduğunu, kırılganlık algıları, yabancı müdahale anıları ve düşman bir komşulukta statü arayışıyla şekillendiğini vurguluyor. Siyasi özü anlamak, anlaşmazlığın neden bu kadar uzun süreli olduğunu ve İran'ın nükleer silah yayılımına yönelik kalıcı bir çözümde Amerika Birleşik Devletleri'nin neden merkezi bir rol oynadığını kavramak için çok önemlidir.

Anahtar Kelimeler: *İran Nükleer Programı, Barış İçin Atom, ABD-İran Nükleer İşbirliği, Soğuk Savaş Nükleer Politikası, Nükleer Diplomasi.*

Introduction

This study employs a qualitative and historical-analytical methodology grounded in key approaches within the field of international relations, integrating realist, constructivist, and historical institutionalist perspectives to explain the evolution of Iran's nuclear program. The research design relies on process-tracing to uncover causal mechanisms across seven decades of political transformation, using primary sources such as declassified U.S. and U.K. diplomatic documents, IAEA safeguards reports, NPT records, and official statements, alongside secondary academic literature, policy analyses, and historical accounts. By combining realist concepts, such as security dilemmas, regional power balances, and threat perceptions, with constructivist insights into identity formation, prestige-seeking, and Iran's historical memory of foreign intervention, the study situates nuclear policy within broader patterns of state behaviour. Historical institutionalism is used to explain how path dependency, regime change, and institutional continuity shaped the program across the Pahlavi era, the post-revolutionary ideological shift, and the later phase of technological reconstruction. Comparative insights drawn from other nuclear and near-nuclear states further contextualize Iran's strategy during periods of cooperation, isolation, and confrontation. While the research benefits from extensive archival and scholarly material, it acknowledges limitations arising from restricted access to Iranian archives and the opaque nature of security-related decision-making. Overall, this methodology allows for a comprehensive, multi-layered interpretation of Iran's nuclear trajectory as both a geopolitical and identity-driven enterprise.

This study uses process analysis to explain the role of the United States in the historical evolution of Iran's nuclear program. The article is built upon the intersection of realist and constructivist theories. Realism is a materialist approach to international relations, where states prioritize their own security in an anarchic environment and are based on power struggles; while Constructivism is an anti-materialist approach that argues that the international structure is shaped by social interactions such as identities, norms, and ideas. While Realism focuses on a fixed "*anarchy*" structure, Constructivism emphasizes the mutability of this structure with the understanding that "*anarchy is what states understand by what they are doing*". In Realism, states are unitary and rational actors. In Constructivism, the identities and interests of actors are formed (constructed) through interaction. Realism views the world as a field of power struggle and conflict. Constructivism, on the other hand, views the world as a structure shaped by shared ideas and social norms. Realism focuses on the principle of "*self-help*" and military power. Constructivism argues that security is socially constructed through threat perception. In

Realism, the structure of the international system is fixed (anarchy). In Constructivism, however, the structure can change through the interaction of actors. Approaches such as realist constructivism combine these two theories in international relations to examine the interaction between materialist power and social construction.[2]

1. A Crisis that Refuses to End

For more than a decade, Iran's nuclear effort has been a focal point of international anxiety, an issue that shapes headlines, disturbs energy markets, and forces diplomats, strategists, and regional actors into repetitive cycles of pressure and negotiation. The confrontation is crowded with powerful stakeholders: Iran itself, geographically pivotal, demographically substantial, and resource-rich, faces an array of Western states led by the United States, with Israel hovering at the escalatory edge. Russia and China, meanwhile, occupy the intermediate space between great-power influence and selective engagement.[3]

This is not merely another Middle Eastern quarrel. It is a dispute whose resolution, or mismanagement, could reverberate through global security architectures for a generation. Yet despite the sustained intensity of the debate, surprisingly few accounts follow the program from its inception in the late 1950s through its multiple reinventions. Doing so reveals that the nuclear file is inseparable from the deeper puzzle of modern Iran: its long negotiation with modernity, its acute sensitivity to external interference, and its oscillation between pride and insecurity.[4]

Therefore, the course of Iran's nuclear program can be divided into the following periods: 1957-1979, 1979-2002, 2002-2018, and 2018-2026.

2. The Nuclear Age and the Invention of Global Atomic Governance

The atomic detonations over Hiroshima and Nagasaki at the end of World War II did more than end a conflict; they birthed a strategic, technological, and moral revolution. The United Nations quickly recognized both the promise and peril of atomic energy. Early UN resolutions called for eliminating nuclear weapons while also grappling with the technology's dual-use character.

[2] See; Tayyar Arı (2021), *Uluslararası İlişkiler Teorileri*, İstanbul: Alfa Yayınları.
[3] David Patrikarakos (2012), *Nuclear Iran: The Birth of an Atomic State*, London: I. B. Tauris; Al J. Venter (2005), *Iran's Nuclear Option: Tehran's Quest for the Atom Bomb*, Havertown, PA: Casemate.
[4] See; Stephen Kinzer (2008), *All the Shah's Men: An American Coup and the Roots of Middle East Terror,* New Jersey, USA: John Wiley&Sons; George Lenczowski (1980), *The Middle East in World Affairs,* Ithaca: Cornel University Press.

The central dilemma was inescapable: nuclear power could fuel development and electrify economies even as it enabled unprecedented forms of destruction.[5]

Dwight D. Eisenhower's 1953 "*Atoms for Peace*" speech transformed that dilemma into a governance blueprint. The International Atomic Energy Agency (IAEA), established in 1957, would embody this architecture: nations could access nuclear assistance for peaceful purposes in exchange for oversight mechanisms designed to prevent diversion to weapons. With that institutional frame in place, many modernizing states, including Iran, saw a path to accelerated development, technological stature, and international recognition. For Mohammad Reza Shah, the invitation was irresistible.[6]

3. Iran's Long Memory of Foreign Intrusion

Any explanation of Iran's nuclear appetite must begin with a longer narrative of intrusion and loss. In the nineteenth and early twentieth centuries, Iran endured imperial pressure from both Russia and Britain. Territorial concessions after the 1826–28 war with Russia, culminating in the Treaty of Turkmenchay, left deep scars. The 1901 D'Arcy concession, granting expansive oil rights to a British entrepreneur and later birthing the Anglo-Persian Oil Company, magnified the sense that Iran's wealth could be alienated by external powers through unequal bargains.[7]

The 1905–1907 Constitutional Revolution produced Iran's first parliament, a landmark in political awakening, even as Britain and Russia parcelled the country into spheres of influence. The Qajar dynasty gave way in 1925 to Reza Khan (Reza Shah) with more than a hint of great-power facilitation. Then, during World War II, Allied forces occupied Iran to secure supply routes to the Soviet Union, pressuring Reza Shah to abdicate in favour of his son, Mohammad Reza. The younger monarch's formative political memory thus included a brutal lesson: Iran's fate could be, and repeatedly had been, decided by others.[8]

That lesson was burned even deeper by the Anglo-American coup of 1953 overthrowing Prime Minister Mohammad Mossadegh, whose nationalist project had challenged British oil control. The coup consolidated the Shah's rule but at the price of entangling his legitimacy with foreign

[5] Dwight D. Eisenhower (1953), "Atoms for Peace Speech", United Nations General Assembly, December 8, 1953; Gene R. Garthwaite (2011), *İran Tarihi*, translated by Fethi Aytuna, İstanbul: İnkılap Yayınevi.
[6] Dwight D. Eisenhower (1953), "Atoms for Peace Speech"; David Fischer (1997), *History of the International Atomic Energy Agency: The First Forty Years*, Vienna: IAEA.
[7] Mark Gasiorowski & Malcolm Byrne (2004), *Mohammad Mosaddeq and the 1953 Coup in Iran*, Syracuse University Press; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company.
[8] Mark Gasiorowski & Malcolm Byrne (2004), *Mohammad Mosaddeq and the 1953 Coup in Iran*; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company.

backing. From that point on, "*security*" and "*sovereignty*" were not abstractions; they were existential goals that would shape domestic policy, foreign alignments, and, in time, nuclear ambitions.[9]

4. The Shah's Vision: Security, Modernity, and the Technology of Prestige

By the mid-1950s, the Shah had begun to translate insecurity into statecraft. He compressed his priorities into a doctrine of "*positive nationalism*", which elevated two strategic imperatives: closing Iran's technological gap with the West and hardening the country against external manipulation. For the Shah, modernization and Westernization were often indistinguishable. He sought to pull Iran out of perceived medieval stagnation through state-led transformation, the "*White Revolution*", aimed at land reform, education, women's rights, and industrialization.[10]

Nuclear power slotted naturally into this agenda. It offered megaproject scale, symbolism, and the sheen of cutting-edge science. To a leader fascinated by modern hardware, jet aircraft, advanced armour, complex surveillance systems, the atom looked like both an energy solution and a status engine. The Shah's imagination also ranged beyond domestic utility: he envisioned Iran as a regional power whose military and technological prowess would stabilize the Persian Gulf after Britain's retrenchment east of Suez. In conversations with American leaders, he promoted Iran as a security pillar in an unstable region, a vision that eventually dovetailed with the Nixon Doctrine's "*twin pillars*" strategy of empowering Iran and Saudi Arabia to underwrite regional order.[11]

5. Atoms for Peace Comes to Tehran: Building the Institutional Base

"*Atoms for Peace*" was not just rhetoric; it delivered training, technology sharing, and research infrastructure. In 1957, Tehran and Washington signed a bilateral agreement enabling cooperation on the peaceful uses of nuclear energy. The arrangement opened the door to equipment, fuel, and know-how under IAEA safeguards and set the stage for a research reactor.[12]

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[9] Mark Gasiorowski & Malcolm Byrne (2004), *Mohammad Mosaddeq and the 1953 Coup in Iran*; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company.
[10] Abbas Milani (2011), *The Shah*, New York: Palgrave Macmillan; Nikki R. Keddie (2003), *Modern Iran: Roots and Results of Revolution*, Yale University Press.
[11] Abbas Milani (2011), *The Shah*; Nikki R. Keddie (2003), *Modern Iran: Roots and Results of Revolution*.
[12] Dwight D. Eisenhower (1953), "Atoms for Peace Speech"; Akbar Etemad (2020), *The Development of Iran's Nuclear Program 1957–1981*, Harvard PIIE Working Papers; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company; International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*, IAEA Publications.

Institutionalization followed. The Tehran Nuclear Research Centre (TNRC), established in 1967 and run by the Atomic Energy Organization of Iran (AEOI), became the nucleus of Iran's civil program. The 5-megawatt research reactor, fuelled by highly enriched uranium supplied by a U.S. company, anchored a growing domestic cadre of Iranian scientists and engineers. Training pipelines developed through partnerships and scholarships; CENTO's nuclear sciences institute shifted from Baghdad to Tehran; and by the late 1970s, hundreds of Iranian specialists had studied or received technical preparation abroad.[13]

Iran also acceded to the emergent non-proliferation regime. By signing the treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968 and ratifying it in 1970, Tehran accepted the basic bargain of the postwar atomic order: access to peaceful nuclear technology in exchange for verifiable commitments not to weaponize. In that act lay one of the enduring tensions of Iran's nuclear tale, affirming global norms while also pressing for the full "*rights*" NPT members believed they were due.[14]

6. Why Nuclear? Economics, Energy, and the Politics of Recognition

Publicly, the Shah justified nuclear expansion on economic grounds. Iran's electricity demand would grow; hydrocarbons were too valuable to burn for routine power; and diversification would shield the economy from volatility. The oil price boom after 1973 supercharged the ambition. Windfall revenues made possible what had previously been aspirational: a multi-reactor build-out, foreign partnerships, and the projection of technical confidence. Plans for up to 20-plus reactors circulated, and Bushehr, on Iran's southwestern coast, became the centrepiece of an emergent power program, with German firms contracted in 1975 to construct pressurized water reactors.[15]

[13] Dwight D. Eisenhower (1953), "Atoms for Peace Speech"; Akbar Etemad (2020), *The Development of Iran's Nuclear Program 1957–1981*; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company; International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; Behçet Kemal Yeşilbursa (2020), "CENTO: the forgotten alliance in the Middle East (1959-1979)", *Middle Eastern Studies,* 56(6), pp. 854-877; Guy Hadley (1971), *CENTO: The Forgotten Alliance,* Sussex: University of Sussex.

[14] Dwight D. Eisenhower (1953), "Atoms for Peace Speech"; Akbar Etemad (2020), *The Development of Iran's Nuclear Program 1957–1981*; British National Archives (1901–1954), Records on the D'Arcy Concession and Anglo-Persian Oil Company; International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; David Patrikarakos (2012), *Nuclear Iran: The Birth of an Atomic State,* London: I.B. Tauris, pp. 51-59.

[15] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; U.S. Department of State (1957-1978), "Atoms for Peace and U.S.–Iran Nuclear Cooperation", State Department Historical Records; Gary Samore (2005), *Iran's Strategic Weapons Programmes: A Net Assessment*, London: Routledge.

Yet economics alone cannot explain the intensity of the push. Across the developing world in the 1970s, nuclear power connoted modernity, sovereignty, and parity. Owning a nuclear program, even a purely civilian one, signalled that a country belonged in the first ranks of technologically capable states. In a region where status and deterrence carry unusual weight, the symbolic horizon of "the atom" extended beyond kilowatt-hours to national dignity.[16]

7. The American Paradox: Enabler and Constraint

The United States occupies a paradoxical place in Iran's nuclear history. Washington catalysed the early stages, transferring technology under safeguards, encouraging research capacity, and validating the concept of civilian nuclear power in Iran. Yet as the 1970s progressed, U.S. policy grew increasingly ambivalent, then wary, and finally restrictive.[17]

Several factors fed that change. First, Iran's oil wealth meant that power reactors looked, to some American officials, economically premature. Second, the authoritarian nature of the Shah's rule raised questions about stability and succession; what if the regime fell and nuclear materials were seized by hostile actors? Third, and most crucially, the spread of sensitive fuel-cycle technologies, especially reprocessing, which can separate plutonium, risked narrowing the distance between civilian and military pathways.[18]

A 1974 CIA assessment captured the unease: if the Shah remained on the throne into the mid-1980s and if other regional states pursued weapons, Iran might choose to follow suit. The Shah's own rhetoric did not calm nerves. Although he dismissed an immediate desire for nuclear arms, he hinted that proliferation elsewhere could force a policy rethink. Meanwhile, U.S. administrations evolved: the Nixon-Ford years were relatively accommodating, at one point even contemplating a U.S.-built reprocessing facility under conditions, whereas the Carter administration tightened export controls and emphasized non-proliferation. The resulting tug-of-war produced a familiar pattern: Iran pressed for comprehensive fuel-cycle capabilities;

[16] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; Mohammad Reza Pahlavi (1961), *Mission for My Country*, London: Hutchinson.
[17] U.S. Department of State (1957-1978), "Atoms for Peace and U.S.–Iran Nuclear Cooperation"; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*, Carnegie Endowment; Gerges, Fawaz A. (2024), *What Really Went Wrong: The West and the Failure of Democracy in the Middle East*, New Haven: Yale University Press.
[18] U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.

Washington insisted on additional constraints; Tehran reluctantly backed down to preserve broader ties, but often with accumulating resentment.[19]

8. The Bushehr Ambition and the Making of a Nuclear Programme

Bushehr became the worksite where aspiration met reality. The plan was straightforward in concept, import proven Western technology, build quickly, and let operation breed domestic expertise. By the late 1970s, Bushehr I was reportedly nearing completion, with Bushehr II partially built. Around these projects, Iran knitted a wider research centres, university programs, partnerships with European suppliers, and a growing cohort of trained personnel. Hundreds had already returned from study abroad; more than a thousand were in training pipelines.[20]

But building the technical base was only half the task. Iran needed fuel assurances, spare parts, and maintenance contracts; it needed security arrangements to protect nuclear sites; and above all, it needed durable political relationships with the supplier states whose cooperation the program required. These dependencies created leverage. When the diplomatic weather turned stormy, suppliers could slow-walk deliveries, raise conditions, or threaten cancellation, reminders that while nuclear power symbolizes autonomy, it often demands deep integration into foreign industrial systems.[21]

9. Power and Personality: The Shah at His Zenith

By the mid-1970s, the Shah's authority was scarcely contested within Iran's political system. Budgets ballooned; the military expanded at astonishing speed; and Tehran's foreign policy voice grew more confident. Western ambassadors routinely reported the monarch's intolerance for dissenting views. Iran positioned itself as a guardian of Gulf stability, purchasing advanced weaponry at scale and crafting a narrative of benevolent regional primacy.[22]

Within this self-conception, nuclear power functioned as a capstone technology, a marker of civilizational progress and a practical tool for energy planning. The ambition for a full fuel cycle, however, collided with U.S. anxieties. The pattern repeated: Iran expressed interest in reprocessing; American officials sought stringent conditions; protracted bargaining ensued; and

[19] U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.
[20] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[21] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[22] Abbas Milani (2011), *The Shah*; Central Intelligence Agency (CIA) (1974), "Proliferation Assessment: Iran's Nuclear Intentions".

each cycle left a residue of distrust. When Presidents changed, from Nixon to Ford to Carter, the tonal shift in Washington's policy often felt, in Tehran, like a bait-and-switch. Although the Shah sometimes conceded specific demands to keep the strategic partnership intact, the cumulative frustration was palpable.[23]

10. Revolution and Rupture: 1979 and the Unravelling of the Pahlavi Program

Revolution turned the page with the force of a gale. In early 1979, the Shah fled; the Islamic Republic rose; and the symbols of Pahlavi modernity fell under furious scrutiny. The nuclear project, tightly associated with the monarchy's extravagance and Western entanglements, was an easy target. New leaders denounced the program's cost and dependence on foreign suppliers, framing it as a conduit for economic subordination and a monument to misplaced priorities.[24]

Cancellations followed. Contracts were suspended or annulled; Western firms withdrew; fuel and spare parts became inaccessible. Domestically, the argument that nuclear development primarily served foreign industrial interests played well. In revolutionary rhetoric, the atom was not a tool of emancipation but a trap, a pipeline linking Iran's treasury to Western corporations and constraining the new regime's freedom to chart its own course.[25]

The unravelling revealed how little popular constituency the program had actually cultivated. Under the Shah's centralized rule, nuclear policy was largely elite-driven, technocratic, and insulated from public debate. Without a broad domestic base, the project could not defend itself against revolutionary iconoclasm. It appeared, to many, as another gilded artifact of a discredited order.[26]

11. Politics, Not Physics: The Determinants of the Nuclear Question

The post-1979 era demonstrates a persistent reality: nuclear outcomes in Iran have been shaped more by politics than by reactor physics or fuel-cycle engineering. The same technology can be framed as emancipatory or neo-colonial, as cost-effective or ruinous, as stabilizing or destabilizing, depending on who wields it and to what end.[27]

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[23] Abbas Milani (2011), *The Shah*; Central Intelligence Agency (CIA) (1974), "Proliferation Assessment: Iran's Nuclear Intentions".
[24] Nikki R. Keddie (2003), *Modern Iran: Roots and Results of Revolution*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[25] Nikki R. Keddie (2003), *Modern Iran: Roots and Results of Revolution*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[26] Nikki R. Keddie (2003), *Modern Iran: Roots and Results of Revolution*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[27] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*, University Press of Florida; Fawaz A. Gerges (2024), *What Really Went Wrong: The West and the Failure of Democracy in the Middle East, Yale University Press*, pp. 38-82, 108-125.

That political plasticity explains both the program's near-abandonment immediately after the revolution and its later rehabilitation. As the Islamic Republic consolidated power, fought a brutal war with Iraq, and confronted sanctions and isolation, the leadership gradually rediscovered the program's uses, this time recast in a vocabulary of self-reliance, scientific achievement, and defiance. What had been denounced as Pahlavi vanity could now be promoted as Islamic Republic resolve.[28]

12. A Slow Reconstitution: From Suspicion to Selective Engagement

By the 1980s and 1990s, Tehran explored ways to salvage and reconstitute pieces of the nuclear enterprise. Negotiations with European and Latin American partners probed options for research fuel and technical support. Russia emerged as a critical interlocutor, offering know-how and the promise, eventually realized, of completing Bushehr under a reconfigured framework. These steps were halting and contested, but together they seeded the infrastructure and expertise for a more autonomous program.[29]

The technical accretions mattered: a refurbished research base, returning cohorts of trained engineers, localized manufacturing capacity for certain components, and the cultivation of domestic scientific institutions. Politically, each new facility and capability could be domesticated as a national achievement, woven into narratives of resilience and sovereignty. The more the country absorbed sanctions and external pressure, the more the nuclear file could be rhetorically aligned with a broader ethos of resistance.[30]

13. Identity, Status, and the Nuclear Imagination

Across both the Pahlavi and post-revolutionary eras, the nuclear program has served as a canvas for projecting identity. Under the Shah, it symbolized a leap toward Western-modelled modernity, crowned by spectacular technology and grand industrial design. Under the Islamic Republic, it evolved into a badge of independence, the fruit of indigenous effort (however

[28] See; Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*. See; Fawaz A. Gerges (2024), *What Really Went Wrong: The West and the Failure of Democracy in the Middle East, Yale University Press*, pp. 38-82, 108-125.
[29] Nuclear Threat Initiative (NTI), *Iran Country Profile*, NTI Archives; RAND Corporation (2011), *Iran's Nuclear Future: Critical Drivers and Constraints*, RAND; Kenneth N. Waltz & Scott Sagan (2002), *The Spread of Nuclear Weapons: A Debate Renewed*, W.W. Norton.
[30] Nuclear Threat Initiative (NTI), *Iran Country Profile*, AI J. Venter (2005), *Iran's Nuclear Option: Tehran's Quest for the Atom Bomb*.

partial) in the face of embargoes and threats. In both cases, the atom condensed multiple aspirations, security, prosperity, prestige, into a single, legible artifact.[31]

This symbolic density helps explain the program's endurance and the controversies surrounding it. Outsiders often view Iran's nuclear choices through narrow cost-benefit lenses, tabulating kilowatt-hours, capital costs, and sanctions relief. But for Tehran's political elite, the calculus includes fewer tangible equities: standing among peers, domestic legitimacy, and historical catharsis. The program is not simply an energy portfolio item; it is a story Iran tells about itself.[32]

14. The U.S. Role Endures: From Architect to Arbiter

If the United States helped build the early scaffolding, it has also remained the most influential actor in constraining, enabling, or redirecting Iran's nuclear path. American export policies, sanctions regimes, and diplomatic initiatives set the tempo. When relations were warm, cooperation expanded; when relations soured, pipelines closed.[33]

This structural centrality derives from more than U.S. power. It reflects Washington's historically dominant position in the nuclear supplier cartel, its unmatched capacity to coordinate with allies, and its ability to combine economic, technological, and security levers. For Iran, which seeks both technological autonomy and international legitimacy, the United States is simultaneously obstacle and gatekeeper, antagonist and potential guarantor. That duality gives Washington exceptional leverage but also imposes responsibility: missteps can harden positions and deepen the very security dilemmas they aim to solve.[34]

15. Reassessing the Shah's Failure

Why did the Pahlavi nuclear push, ambitious as it was, ultimately stall? The immediate cause was political collapse. But beneath that proximate trigger lay structural flaws. The program's reliance on foreign technology and services created vulnerabilities that revolutionary turmoil ruthlessly exploited. The absence of broad domestic buy-in made the project easy to cast as elite indulgence. And the Shah's conflation of modernization with Westernization meant that the

[31] Homa Katouzian (2009), *The Persians: Ancient, Mediaeval and Modern Iran*, Yale University Press; Michael Axworthy (2008), *A History of Iran: Empire of the Mind*, Basic Books.
[32] Homa Katouzian (2009), *The Persians: Ancient, Mediaeval and Modern Iran*; Michael Axworthy (2008), *A History of Iran: Empire of the Mind*.
[33] Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*; Louise Fawcett (2019, *International Relations of the Middle East*, Oxford University Press.
[34] Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.

nuclear enterprise carried the cultural freight of a contested identity project, alienating precisely those whose support might have ensured continuity.[35]

Moreover, the persistent disputes with Washington over sensitive fuel-cycle capabilities eroded trust. Each tussle over reprocessing or export conditions left scars, feeding a sense in Tehran that the West would never truly recognize Iran's nuclear "rights," and feeding a mirror-image belief in Washington that Tehran would never fully forswear the bomb if given the tools to approach it. The result was a dynamic equilibrium of ambition and suspicion that the revolution shattered but did not resolve.[36]

16. Continuities Across Rupture

Despite the profound rupture of 1979, certain continuities persisted. The program remained tethered to ideas of sovereignty and security. The energy rationales, while modified, continued to figure in official discourse. The search for international respect did not disappear; it was reframed. And the United States, in all phases, remained the indispensable variable, whether as a source of equipment and training, the architect of sanctions, or the interlocutor whose assent (or at least acquiescence) is often required to normalize Iran's nuclear status.[37]

This continuity suggests that any enduring settlement will have to address more than technical specifications and verification protocols. It must engage the historical psychology of the dispute: Iran's memory of humiliations and exclusions, America's fears of proliferation cascades and regional destabilization, and the broader region's anxieties about balance of power. Without a political frame that renders these concerns legible and negotiable, technical deals will continue to fray.[38]

17. Lessons from the Early Program for Today's Dilemmas

The early decades of Iran's nuclear story offer several lessons of continuing relevance:[39]

[35] Abbas Milani (2011), *The Shah*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation; Shannon N. Kile (2005), *Europe and Iran: Perspectives on Non-Proliferation*, Oxford: Oxford University Press.
[36] Abbas Milani (2011), *The Shah*; U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
[37] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; Trita Parsi (2017), *Losing an Enemy: Obama, Iran, and the Triumph of Diplomacy*, Yale University Press.
[38] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; Trita Parsi (2017), *Losing an Enemy: Obama, Iran, and the Triumph of Diplomacy*, Yale University Press.
[39] Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*; Roger Howard (2004), *Iran in Crisis? Nuclear Ambitions and the American Response*, London: Zed Books.

1. Technology is embedded in politics. Training agreements, fuel contracts, and construction timelines are not neutral. They inscribe power relations and create leverage points.

2. Symbols matter. Nuclear projects generate meaning that exceeds their immediate utility. Policymakers who ignore that symbolic load misread their own leverage and their counterpart's red lines.

3. Dependency breeds fragility. A program that relies extravagantly on external suppliers without diversifying or cultivating domestic constituencies can be unmade by political shocks.

4. Ambiguity invites escalation. Ambiguous intentions, especially regarding sensitive fuel-cycle steps, multiply worst-case scenarios and harden restrictive policies. Clear, enforceable guardrails can reduce these security spirals, though they require trust that is often in short supply.

5. Great-power management is decisive. The presence, or absence, of a stable modus vivendi between Washington and Tehran has repeatedly determined whether Iran's nuclear aspirations grow, stall, or mutate.

18. The Domestic Narrative: From Technocracy to Populism

Under the Shah, the nuclear program was presented as a technocratic triumph, a rational response to energy demand and a leap into the technological vanguard. The public voice was muted; decisions largely flowed from the palace through ministries to foreign contractors. After 1979, the same infrastructure was recast in populist colours: an emblem of self-reliance, proof that Iran could stand tall despite sanctions, and a showcase for indigenous ingenuity.[40]

This narrative flip did more than change the rhetoric. It broadened the program's domestic constituency. University departments expanded; research publications became sources of national pride; and milestones were celebrated as collective victories. The very pressures designed to halt the program sometimes strengthened it by enhancing its symbolic return on investment.[41]

19. Bushehr as Palimpsest

No single site better captures the layered history of Iran's nuclear journey than Bushehr. Conceived under the Shah through German partnerships, interrupted by revolution, war, and

[40] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*; Shannon N. Kile (2005), *Europe and Iran: Perspectives on Non-Proliferation*, Oxford: Oxford University Press.
[41] Gawdat Bahgat ('007), *Proliferation of Nuclear Weapons in the Middle East*; Sasan Fayazmanesh (2008), *The United States and Iran: Sanctions, Wars and the Policy of Dual Containment*, Routledge.

sanctions, then resumed with Russian assistance, Bushehr is a living palimpsest. Each layer, Pahlavi ambition, revolutionary suspicion, post-war reconstruction, and pragmatic collaboration, remains faintly visible beneath the next.[42]

The plant's eventual operation demonstrated that, under the right conditions, international cooperation could resume even after bitter estrangement. But the terms of that cooperation also reflected the learning curve of the supplier states: tighter controls, clearer end-use conditions, and a premium on arrangements that ring-fence proliferation risks.[43]

20. Iran Between Past and Future

Iran's political imagination oscillates between ancient grandeur and revolutionary mission. The country's self-image combines echoes of Cyrus the Great, empire, statecraft, and cultural achievement, with the Theo-political vision of the Islamic Republic. That duality generates both ambition and anxiety. It pushes leaders to seek technologies of stature while fearing entanglements that could reproduce old patterns of dependence.[44]

The nuclear program functions as a bridge between these poles. It offers a way to be modern without capitulating to foreign tutelage and a way to be independent without retreating from the promise of science. That dual promise is compelling, which is why it has survived coups, revolutions, wars, and sanctions.[45]

21. Why the Dispute Persists

The durability of the nuclear impasse owes much to clashing security narratives. For the United States and its allies, Iran's proximity to weaponization, even if unpursued, threatens to destabilize the region and ignite proliferation cascades. For Iran, persistent external pressure validates the belief that only self-reliance can guarantee survival and respect. Each side reads the other's actions through a prism of worst-case assumptions, turning confidence-building steps into tests of credibility that are perennially failed.[46]

[42] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; RAND Corporation (2011), *Iran's Nuclear Future: Critical Drivers and Constraints*.
[43] International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*; RAND Corporation (2011), *Iran's Nuclear Future: Critical Drivers and Constraints*.
[44] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.
[45] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.
[46] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.

Add to this the regional chessboard, Israel's threat perceptions, Gulf Arab concerns, great-power competition, and the residual impacts of wars in Iraq and Afghanistan, and the stage is set for recurrent crisis. Technical progress becomes diplomatic provocation; sanctions stiffen nationalist resolve; and opportunities for de-escalation are missed or mistrusted.[47]

22. The United States as Necessary Interlocutor

The revelation of Iran's nuclear program in 2002 was a turning point in international relations and Middle Eastern geopolitics. In August 2002, the National Council of Resistance of Iran (NCRI), an Iranian opposition group, revealed to the world that Iran was building a secret uranium enrichment facility in Natanz and a heavy water production facility in Arak. Iran was conducting clandestine, military-related nuclear activities that had not been reported to the International Atomic Energy Agency (IAEA). This revelation led Western countries to suspect Iran's nuclear intentions (that it aimed to produce weapons). This event initiated a period of sanctions and a nuclear crisis between Iran and the US, EU, UN, and IAEA that would last for years. This 2002 revelation put Iran under pressure to disclose the full scope of its nuclear program. Following this revelation in 2002, the existence of a secret nuclear facility in Fordow was also revealed in 2009. This led to questioning of Iran's nuclear energy claims in the international public sphere and the beginning of strict inspections.

Despite the complex cast of actors, Washington remains the single most important external determinant of Iran's nuclear future. Its sanctioning power, its influence over suppliers, and its ability to orchestrate multilateral coalitions give it tools no other state possesses. That leverage can be used to coerce, to bargain, or to construct hybrid arrangements that accept some level of Iranian capability under rigorous monitoring.[48]

For any approach to stick, however, the United States will have to navigate Iran's layered memory of interference. Demands that appear modest in Washington can look, in Tehran, like attempts to freeze inequality in place. Conversely, Iranian conceptions of "rights" can appear, in Washington, as demands for trust unearned by behaviour. Bridging this gap requires acknowledging not only current risks but also historical narratives.[49]

[47] Gawdat Bahgat (2007), *Proliferation of Nuclear Weapons in the Middle East*; Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.
[48] Louise Fawcett (2019), *International Relations of the Middle East,* Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.
[49] Louise Fawcett (2019), *International Relations of the Middle East,* Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.

23. The Political Dynamics of Resolution

Any sustainable settlement must harmonize three elements: Security guarantees sufficient to lower proliferation incentives. Iran needs to believe that restraint will not invite coercion. Technological dignity within enforceable limits. The program must satisfy Iran's desire for recognition while providing the international community with confidence about non-diversion. Economic normalization. Without tangible dividends, trade, investment, and financial access, even the most elegant verification architecture will erode under domestic pressure.[50]

These elements are mutually reinforcing. Security pacts without economic relief will ring hollow; economic relief without monitoring will be politically impossible abroad; monitoring without a narrative of dignity will be politically impossible at home in Iran. The alchemy lies in combining all three in proportions acceptable to sceptical constituencies on both sides.

However, on May 8, 2018, the United States, under then-President Donald Trump, unilaterally announced its withdrawal from the Iran nuclear agreement (Joint Comprehensive Plan of Action - JCPOA). Key points regarding this decision are as follows:

Reason for Withdrawal: Trump described the agreement as "bad" and "shameful," claiming it failed to prevent Iran from obtaining nuclear weapons and did not restrict Tehran's activities in the region.

Sanctions: With the withdrawal, a "maximum pressure" campaign against Iran was launched, and previously lifted economic sanctions were reinstated.

Status of the Agreement: Despite the US withdrawal, while other signatories (UK, France, Germany, China, Russia) attempted to maintain the agreement, US sanctions largely rendered its economic provisions ineffective. This move marked a significant turning point in the nuclear agreement process signed in 2015.

The nuclear disputes between Iran and the US between 2018 and 2026 can be summarized chronologically and descriptively, considering the main turning points, positions of the parties, and outcomes of each period, given the lengthy nature of the issue.

On May 8, 2018, US President Donald Trump unilaterally withdrew from the 2015 Joint Comprehensive Plan of Action (JCPOA). The justification given was that the agreement did not cover ballistic missiles and regional activities, and that it did not prevent Iran from acquiring

[50] Louise Fawcett (2019), *International Relations of the Middle East,* Joseph Cirincione & Jon B. Wolfsthal & Miriam Rajkumar (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*.

nuclear weapons in the long term. Following the withdrawal, the US reimposed heavy economic sanctions on Iran as part of its "maximum pressure" policy. Iran initially adhered to the agreement, but its economic losses rapidly increased. Due to Europe's inability to compensate for the sanctions, Iran gradually suspended its JCPOA obligations starting in May 2019. The uranium enrichment rate exceeded the 3.67% limit. In January 2020, the US killing of Qassem Soleimani brought relations to the brink of direct conflict; Iran announced it was lifting all technical restrictions.

The Joe Biden administration stated that the US could return to the agreement. In April 2021, indirect US-Iran negotiations began in Vienna. However, the US demanded that Iran return to the terms of the previous agreement, while Iran insisted that all sanctions be lifted first and that the US guarantee it would not withdraw again. Therefore, although negotiations progressed at a technical level in the summer of 2022, internal protests in Iran, the US midterm elections, and the Russia-Ukraine war effectively brought the process to a standstill.

In 2023–2024, tensions escalated into a frozen conflict. While the JCPOA continued to exist on paper, it effectively became inoperable. Iran enriched uranium to 60% and restricted IAEA inspections. The US and Israel began arguing that Iran had become a "nuclear threshold state."

In June 2025, Israel launched airstrikes against Iranian nuclear facilities. Shortly afterward, the US struck facilities in Natanz, Fordo, and Isfahan with "bunker-busting bombs." The US administration claimed the program had been "destroyed"; however, intelligence reports indicated this was only a temporary setback. The 12-day conflict ended with a ceasefire on June 24, 2025.

In February 2026, Iran and the US resumed indirect negotiations mediated by Oman. The talks were limited to the nuclear warhead. Iran stated that it would not abandon uranium enrichment but would be open to inspections. The US emphasized that Iran would never possess nuclear weapons. The process continued as a “controlled crisis” and temporary ceasefire until February 28, 2016. On that date, the United States and Israel launched large-scale air strikes against various Iranian cities. The situation quickly escalated into a regional military conflict as Iran targeted US bases and Israeli territory with ballistic missiles.

The period between 2018 and 2026 created an unstable cycle, shifting from the goal of preventing nuclear armament to military deterrence, war, and then the return of forced diplomacy. The JCPOA, in its original form, has effectively ended, and a permanent arrangement has yet to be established in its place.

Conclusion

The Iranian nuclear program began as a quintessential Cold War development project, midwifed by American technology, expertise, and vision under the banner of "Atoms for Peace." It grew in the greenhouse of the Shah's grand modernization drive, marrying energy planning to a quest for prestige and security. It then shattered amid revolution, only to be replanted in different ideological soil, reinterpreted as an emblem of national independence and endurance.

Across these transformations, one through-line remains unmistakable: politics, not physics, has determined the program's fate. Foreign intervention seeded a hunger for autonomy; domestic power struggles shaped policy continuity; and international alignments alternately nourished and starved the enterprise. The United States, present at the creation, has been equally present as constraint and counterweight, its choices shaping the possibilities available to Tehran at every stage.

To "solve" the nuclear puzzle, one must understand the deeper story Iran tells itself, of vulnerability, dignity, and rightful status, and the story America tells itself, of non-proliferation, regional stability, and credible deterrence. The space for agreement lies where those narratives can be made to overlap where Iran's technological dignity is recognized within verifiable limits, where the region's security concerns are credibly addressed, and were economic normalization rewards restraint. Anything less will leave the dispute suspended between crisis and compromise, replaying old scripts while the world watches for the next act.

BIBLIOGRAPHY

- Albright, David & Stricker, Andrea (2021), *Iran's Perilous Pursuit of Nuclear Weapons*, Institute for Science and International Security.
- Ansari, Ali M. (2001), "The myth of the White Revolution: Mohammad Reza Shah, Modernization and the Consolidation of Power", *Middle Eastern Studies*, 37(3), July 2001, pp. 1-24.
- Ansari, Ali M. (2006), *Confronting Iran: The Failure of American Foreign Policy and the Roots of Mistrusts*, London: Hurst.
- Ansari, Ali M. (2003), *Modern Iran: The Pahlavis and After*, London: Pearson, Longman.
- Arı, Tayyar (2021), *Uluslararası İlişkiler Teorileri*, İstanbul: Alfa Yayınları.
- Axworthy, Michael (2008), *A History of Iran: Empire of the Mind*, London: Basic Books.
- Bahgat, Gawdat (2007), *Proliferation of Nuclear Weapons in the Middle East*, USA: University Press of Florida.
- Beeman, William O. (2005), *The Great Satan vs the Mad Mullahs: How the United States and Iran Demonize Each Other*, Westport CT: Greenwood.
- Bill, James A. (1989), *The Eagle and the Lion: Tragedy of American-Iranian Relations*, New Haven: Yale University Press.
- British National Archives (1901-1979), FO Records on Anglo-Iranian Oil Company and Iranian Nuclear Policy.
- British National Archives (1901-1954), FO Records on D'Arcy Concession and Anglo-Persian Oil Company.
- CENTO (Central Treaty Organization) Records (1955-1979), Nuclear Cooperation Files.
- Central Intelligence Agency (CIA) (1974), "Proliferation Assessment: Iran's Nuclear Intentions", CIA Historical Archive.
- Cirincione, Joseph & Wolfsthal, Jon B. & Rajkumar, Miriam (2005), *Deadly Arsenals: Nuclear, Biological and Chemical Threats*, Carnegie Endowment.
- Cleveland, William L. (1994), *A History of Modern Middle East*, Oxford: Westview Press.
- Delpech, Therese (2006), *Iran and the Bomb*, London: Hurst.

- Dimitrakis, Panagiotis (2012), *Failed Alliances of the Cold War,* London: I. B. Tauris.
- Eisenhower, Dwight D. (1953), "Atoms for Peace Speech", United Nations General Assembly, December 8, 1953.
- Etemad, Akbar (2020), *The Development of Iran's Nuclear Program 1957–1981*, Harvard PIIE Working Papers.
- Fawcett, Louise (2019), *International Relations of the Middle East*, Oxford: Oxford University Press.
- Fayazmanesh, Sasan (2008), *The United States and Iran: Sanctions, Wars and the Policy of Dual Containment*, London: Routledge.
- Fischer, David (1997), *History of the International Atomic Energy Agency: The First Forty Years,* Vienna: IAEA.
- Garthwaite, Gene R. (2011), *İran Tarihi,* translated by Fethi Aytuna, İstanbul: İnkılap Yayınevi.
- Gasiorowski, Mark & Byrne, Malcolm (2004), *Mohammad Mosaddeq and the 1953 Coup in Iran*, USA: Syracuse University Press.
- Gerges, Fawaz A. (2024), *What Really Went Wrong: The West and the Failure of Democracy in the Middle East*, New Haven: Yale University Press.
- Hadley, Guy (1971), *CENTO: The Forgotten Alliance*, Sussex: University of Sussex.
- Howard, Roger (2004), *Iran in Crisis: Nuclear Ambitions and the American Response*, London: Zed Books.
- International Atomic Energy Agency (IAEA) (2000), *Iran: Safeguards Summary Reports (1960–2000)*, IAEA Publications.
- Katouzian, Homa (1999), *Mussaddiq and the Struggle for Power in Iran*, London: I. B. Tauris.
- Katouzian, Homa (2009), *The Persians: Ancient, Mediaeval and Modern Iran*, Yale University Press.
- Keddie, Nikki (2003), *Modern Iran: Roots and Results of Revolution*, Yale University Press.
- Kile, Shannon N. (2005), *Europe and Iran: Perspectives on Non-Proliferation,* Oxford: Oxford University Press.
- Kinzer, Stephen (2008), *All the Shah's Men: An American Coup and the Roots of Middle East Terror*, New Jersey, USA: John Wiley&Sons.

- Lenczowski, George (1980), *The Middle East in World Affairs*, Ithaca: Cornel University Press.
- Milani, Abbas (2011), *The Shah*, London: Palgrave Macmillan.
- Mousavian, Seyyed Hossein (2006), "Iran and the West: The Path to Nuclear Deadlock", *Global Dialogue,* Winter/Spring 2006, pp. 69-78.
- Nuclear Threat Initiative (NTI), *Iran Country Profile*, NTI Archives.
- Pahlavi, Mohammad Reza (1961), *Mission for My Country*, London: Hutchinson.
- Parker, John W. (2011), "Persian Dreams: Moscow and Tehran Since the Fall of the Shah", *Terrorism and Political Violence,* 23(1), pp. 125-145.
- Parsi, Trita (2017), *Losing an Enemy: Obama, Iran, and the Triumph of Diplomacy*, Yale University Press.
- Patrikarakos, David (2012), *Nuclear Iran: The Birth of an Atomic State*, London: I.B. Tauris.
- Polk, William R. (2016), *Understanding Iran*, London: Palgrave Macmillan.
- Pryor, Leslie M. (1978), "Arms and the Shah", *Foreign Policy*, 31 (Summer 1978), pp. 56-71.
- Quester, George H. (1977), "The Shah and the Bomb", *Policy Sciences*, 8(1), March 1977, pp. 21-32.
- Ramazani, Ruhollah (1975), *Iran's Foreign Policy, 1941-1973: A Study of Foreign Policy in Modernizing Nations,* Charlottesville, VA: University of Virginia.
- RAND Corporation (2011), *Iran's Nuclear Future: Critical Drivers and Constraints*, RAND.
- Ritter, Scott (2006), *Target Iran: The Truth about the White House's Plans for Regime Change*, London: Politico's.
- Rubin, Barry (2010), *The Middle East: A Guide to Politics, Economics, Society and Culture*, M.E. Sharpe.
- Samore, Gary (2005), *Iran's Strategic Weapons Programme: A Net Assessment*, London: Routledge.
- *The New York Times* archives (1957–1979), Coverage of U.S.–Iran nuclear cooperation and Shah's modernization policies.
- The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (1968), United Nations Treaty Series.

- U.S. Department of State (1957-1978), "Atoms for Peace and U.S.–Iran Nuclear Cooperation", State Department Historical Records.
- U.S. Department of State (1957–1978), Historical Documents on U.S.–Iran nuclear cooperation.
- U.S. National Security Council Records (1974-1977), "Presidential Directives on Iran's Nuclear Energy Program".
- Venter, AI J. (2005), *Iran's Nuclear Option: Tehran's Quest for the Atom Bomb*, Havertown, PA: Casemate.
- Waltz, Kenneth N. & Sagan, Scott (2002), *The Spread of Nuclear Weapons: A Debate Renewed*, W.W. Norton.
- Yeşilbursa, Behçet Kemal (2020), "CENTO: the forgotten alliance in the Middle East (1959-1979)", *Middle Eastern Studies,* 56(6), pp. 854-877.