## The Untold Story of Israeli Innovation

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## **COMMENTARY**



## AP Photo/Oded Balilty

Even beyond its extraordinary success in launching high-tech companies chronicled nine years ago in the best-selling "Start-up Nation," Israel is an innovation capital of the world. But the inspiring story of its inventors and entrepreneurs and their discoveries, devices, and services that have benefited the Jewish state and people around the globe has not been fully told. Nor have the cultural, religious, and political roots of Israeli exceptionalism been sufficiently explored.

Israel's security threats and political challenges understandably preoccupy the media. Newspaper headlines and TV news coverage give the impression that the country exists in an all-consuming state of crisis. The press duly reports that the country has been subject to international opprobrium owing to its control since the 1967 Six Day War of the West Bank, or Judea and Samaria; for decades it has been mired in a battle on several fronts against Islamists; and its political leaders seem to operate perennially amid charges of corruption and government investigations.

Feature articles examining the discord within Israel only bolster the sense of crisis. Much has been written about the obstacles to full integration into the country's society and economy faced by Israel's Arab minority—slightly more than 20 percent of the citizenry. Alarming stories report the high birth rate among Israel's ultra-Orthodox—about 11 percent of the population—and describe how the community, by shielding its children from non-religious education, produces young men and women ill-prepared to participate in the nation's defense and join the labor force. And plenty of pieces examine the bitter divide between the intellectual and cultural elites who live in the greater Tel Aviv municipal area and vehemently oppose Prime Minister Benjamin Netanyahu, and the working-class, many of whom reside on the periphery of large-city centers, and consistently support him.

Small wonder then that many believe Israel is a fortress state embattled from without and from within. But any portrait that overlooks Israeli dynamism is woefully incomplete.

Celebrating its 70<sup>th</sup> birthday in May, Israel abounds with energy, creativity, and intelligence. Its citizens come from a diverse array of countries. Its Jewish population runs the gamut from deeply pious to ardently irreverent. Israeli Arabs, Christians, and other minority populations share the same political rights as Jewish citizens. Newspapers, TV and radio, and social media crackle around the clock with raucous political debate. Literature, music, painting, theater, and dance thrive. In the last decade or so, Israelis have discovered the joys of cooking: celebrity chefs share their recipes and techniques on a steady stream of popular TV shows. And Israel's burgeoning wine industry has given rise to more than 200 wineries in a country that, though the size of New Jersey, boasts an amazing variety of soils and microclimates.

In "Thou Shalt Innovate: How Israeli Ingenuity Repairs the World," my friend Avi Jorisch argues that Israel's "remarkable culture of innovation" further testifies to Israeli dynamism. It also reflects, he stresses, the influence of the "the Jewish prophetic tradition." Israel, he suggests, "is a nation with the soul of a synagogue." The country's stunning advances in agriculture, water, medicine, and defense have been fostered "consciously or unconsciously," Jorisch argues, by the divine imperative "to make the world a better place."

American born, Jorisch spent many of his formative childhood years in Israel and returned for graduate school, which led to studies in Arabic and Islamic philosophy in Egypt. Now residing in the United States and active as an entrepreneur, a Middle East expert who has served in the Departments of Treasury and Defense, and a senior fellow at the American Foreign Policy Council, he writes about Israel with an insider's knowledge of Zionism, Judaism, and the fabric of Israeli life and an outsider's astonishment at the Israelis whose ingenuity, pluck, and moral purpose he depicts.

Jorisch tells the story of Eli Beer who, having witnessed the terrorist bombing of a bus when he was in kindergarten, was inspired as an adult to create the "Uber of ambulances." Beer's "ambucylces"—motorcycles equipped with essential first-responder equipment—have

dramatically improved emergency care by enabling EMTs to dodge traffic and arrive on the scene in the crucial first moments following an accident or attack.

Jorisch recounts Simcha Blass's development of drip irrigation, which gives farmers the ability to make hot, arid regions bloom, and which is widely used on several continents. Before Blass, desert irrigation could lose up to 50 percent of water to evaporation. By depositing water directly at the base of plants, the inexpensive plastic pipes with regularly spaced outlets and cleverly designed valves that Blass pioneered have greatly reduced the waste of a scarce resource.

Jorisch describes the race to build the Iron Dome missile system, which came online in 2014 to provide an affordable defense against the short-range rockets and missiles with which Hamas and Hezbollah have terrorized Israelis civilians. He relates the urgent development in the 1950s and 1960s of solar technology that allowed Israel, a country with few natural resources (in the last decade Israel discovered vast offshore reservoirs of natural gas), to substantially reduce energy outlays by mounting cost-effective hot water heaters on roofs throughout the country. He also reports on a paralyzed Israeli physician who invented an exoskeleton that permits paraplegics to walk; an Israeli Arab husband-and-wife team who created a device that guides doctors to the precise spot to implant electrodes for deep-brain-stimulation therapy; and a botanist who nursed back to life 2000-year-old seeds of the extinct Judean date palm, an achievement that may yield wondrous new medicines.

It is not Judaism's prophetic tradition alone to which Jorisch attributes the amazing outpouring of innovation in Israel. He recognizes as well the lingering effects of the Talmudic tradition—which cherishes education, authorizes dissent, and celebrates mastery of opposing viewpoints—on a "culture that encourages its citizens to challenge authority, ask the next question, and defy the obvious." Charity and service to the community, he notes, have been long-standing Jewish teachings. And he credits Israel's mandatory military service, which simultaneously imposes discipline and encourages young officers with big responsibilities to improvise, and well-designed government programs that fund inventions and entrepreneurship.

Jorisch mentions but understates the political dimension. A commitment to a more just world, he observes, is inscribed in Israel's Declaration of Independence. In May 1948, as five Arab armies sought to destroy the new Jewish state, Israel's founding fathers proclaimed, "We extend our hand to all neighboring states and their peoples in an offer of peace and good neighborliness, and appeal to them to establish bonds of cooperation and mutual help with the sovereign Jewish people settled in its own land." It should be emphasized also that the declaration emphatically guaranteed equality of rights to all Israel's inhabitants regardless of religion, race, or sex and, over the nearly 70 years since its birth, Israel has, good to its promise, cultivated the Middle East's first and only liberal democracy.

A distinctive synthesis of liberty, equality, and nationhood provides the conditions in which an ancient religious spirit has entwined with a distinctive contemporary culture to produce in Israel technological innovations that continue to better the world. The prospering of this political synthesis in an uncommonly tough neighborhood is a crucial and still-to-be-fully-told part of Israel's exceptional story.

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