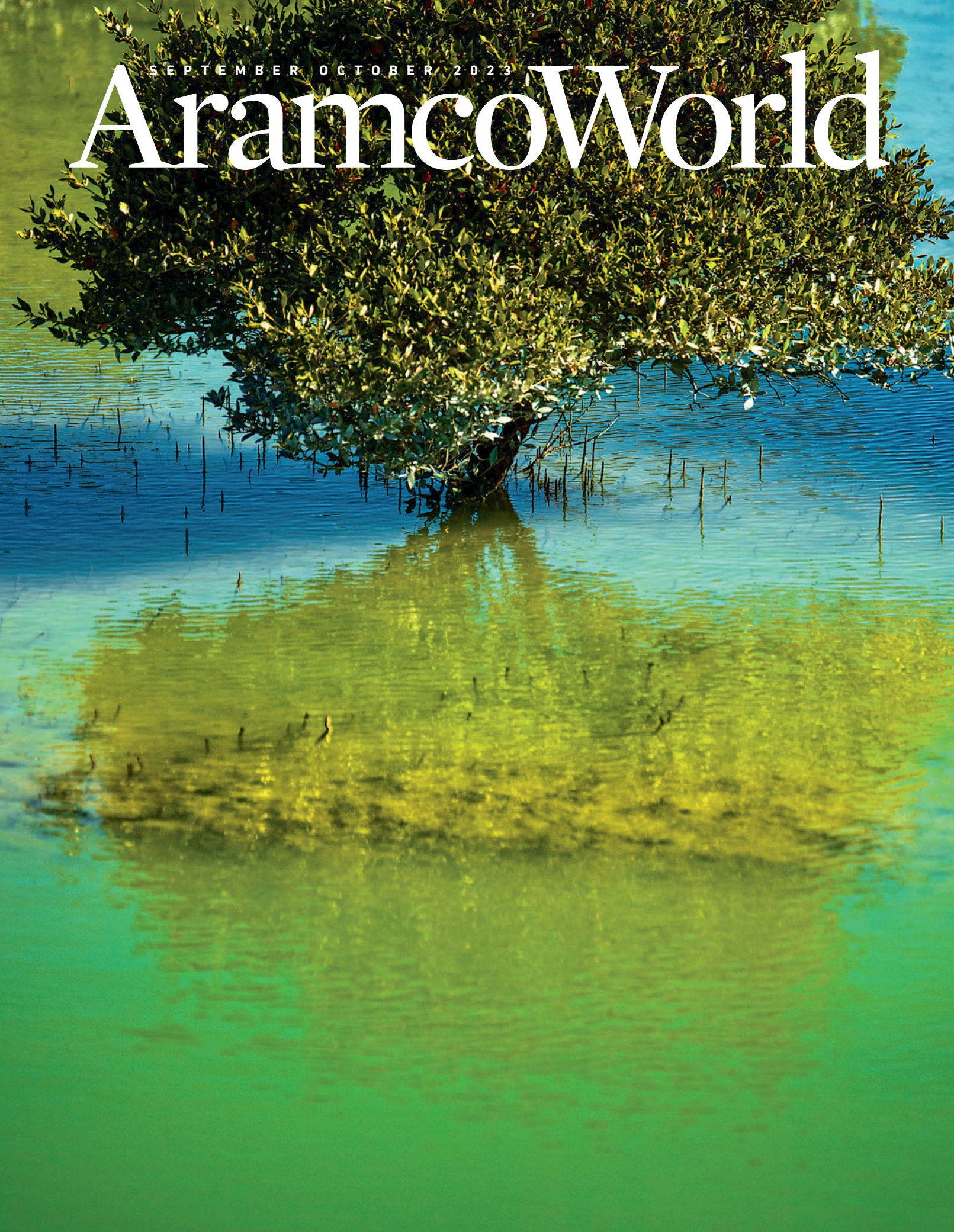
SEPTEMBER OCTOBER 2023

# AramcoWorld






AramcoWorld

SEPTEMBER / OCTOBER 2023 | VOL. 74, NO. 5

aramcoworld.com


We distribute *AramcoWorld* in print and online to increase cross-cultural understanding by broadening knowledge of the histories, cultures and geography of the Arab and Muslim worlds and their global connections.

**FRONT COVER** A mangrove tree is reflected on the waters of Tarout Bay in Mangrove Eco-Park in Ras Tanura, Saudi Arabia. The park, newly created by Aramco, the energy and chemicals company of Saudi Arabia, was designed to preserve and enhance the ecosystem and to educate the community about mangroves and their environmental and economic benefits. Photo courtesy of Aramco.

**BACK COVER** The "Winged Goddess Necklace" is conceptualized in a still image taken from a promotional video that highlights the craftsmanship and legacy of cultural heritage infused in the contemporary jewelry of Azza Fahmy. Photo Courtesy of Azza Fahmy.




Publisher: Aramco Americas | President and CEO: Nabeel I. AlAfaleg | Director, Public Affairs: Hatem Alfayez | Editor: Johnny Hanson | Associate Editor: Alva Robinson | Assistant Editor / Social Media Editor: Sarah Taqvi | Visuals Editor: Waleed Dashash | Digital Support Editor: David Lugo | Administration: Sarah Miller | Print design: Graphic Engine Design | Printing: RR Donnelley / Wetmore | Web design: eSiteful Corporation

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Editorial: editor@aramcoamericas.com or P.O. Box 2106, Houston, Texas 77252-2106, USA

ISSN: 2376-1083



PHOTO CREDITS: NAOKI MIYASHITA/TERMINAL 81 FILM; RICHARD DOUGHTY; DISTANT IMAGERY; CLEVELAND MUSEUM OF ART CHARLES LANG FREER ENDOWMENT

FIRST LOOK

## Duet

*Photograph by Malick Welli*

"Duet" comes from the Latin root word *duo* which means *two*. The *Duet* series focuses on double portraits, a tradition in West Africa. I try to create a duality, a resemblance between two people through gestures, clothing, poses, etc. This series includes portraits of relatives, friends and people united by other ties. This particular image is one from a series showing portraits of men and women pridefully posing in front of walls reminiscent of Saint-Louis, Senegal, and its architectural heritage, old buildings steeped in history. At their feet lies a dark checkerboard reminiscent of traditional photo studios.

**LEFT** Thioro Amar, manager of Rama Diaw's clothing store; **RIGHT** Rama Diaw, a fashion designer.

—Malick Welli @malickwelli

To see more photos from Malick Welli's *Duet* series, link from the QR code.

## Spicy Roasted Cauliflower (Zahra)

*Recipe by Anas Atassi*

*Photograph by Jeroen van der Spek*

**Ma'aleh is usually deep-fried cauliflower, served in a sandwich with raw vegetables and tarator.**

Most Syrians eat cauliflower this way, but any vegetable can be made into ma'aleh—just deep-fry it and make a sandwich as described above. But in my opinion, my mother's oven-roasted cauliflower is even better; it's a perfect side dish or sandwich filling.

*(Serves 6)*

1 cauliflower (cut into florets, leaves reserved)

3 tablespoons of extra-virgin olive oil

2 teaspoons of ground cumin

2 teaspoons of ground paprika

Salt

3 garlic cloves

**To Serve**

Pita or Middle Eastern flatbread

Fresh herbs of your choice

Tarator

**Tarator (Tahini Sauce)**

3-4 tablespoons tahini

Juice, 1 organic lemon

3 ½ tablespoons water

Salt and pepper

2 sprigs flat-leaf parsley (chopped)

Preheat the oven to 220 degrees Celsius (425 degrees Fahrenheit).

On a large baking sheet, toss the cauliflower florets and its leaves with the olive oil, cumin, paprika and some salt. Bake for approximately 25-30 minutes, or until golden brown and just starting to char at the tips.

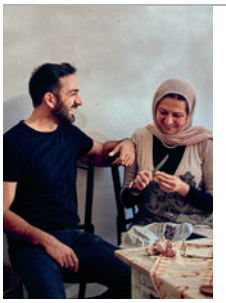
Take the cauliflower out of the oven, toss with the garlic, and bake for another 3 minutes.

Serve Zahra, street-food style, in a pita or flatbread sandwich, stuffed with fresh herbs and tarator, or as a snack or side dish with tarator dipping.

*Reprinted with permission from*

**Sumac: Recipes and Stories from Syria**

Anas Atassi.
Interlink Books, 2021.
interlinkbooks.com.



**Anas Atassi** was born in Homs, Syria, and now lives in Amsterdam. Every summer the entire family goes back to Homs to be together and celebrate the season. Good food continues to be an important part of that celebration, and Atassi has remained a lover of Syrian cuisine, which started his great love for cooking. *Sumac: Recipes and Stories from Syria* is his first cookbook.


無我

# CREATING HARMONY THROUGH TRADITION IN JAPAN

*Written by*
MATTHEW TELLER

*Photographed by*
NAOKI MIYASHITA


With the precise, measured actions of a Japanese ceremonial master, Qayyim Naoki Yamamoto carefully turns a small bowl of freshly made tea twice through 90 degrees. He then presents it to a kneeling recipient who takes the bowl in both hands and, with a bow of the head in respect, retreats to sip it thoughtfully.

The tea ceremony is a marker of Japanese traditional culture, refined over centuries so that every aspect has significance, from the room setting and the

Qayyim Naoki Yamamoto, **LEFT**, Japanese ceremonial master and professor of Islamic studies at Marmara University, in Istanbul, Turkey, speaks to a public audience in Tokyo about the links between Japanese traditional culture and Islam, incorporating what he calls an "Islamic tea ceremony," **BELOW**, to highlight points of commonality between the two.

**ABOVE** In Shibuya, Tokyo, lies the Tokyo Camii, an ornate building designed by Hilmi Şenalp. It touts Ottoman style with its slender minaret and 23-meter dome, and, **BOTTOM RIGHT**, inside the mosque with an ethereal prayer hall of white and turquoise marble detailed in gold.

arrangement of flowers to the calibrated movements of the tea master in preparing and serving the brew.

Yet despite his skill, Yamamoto is not a tea master. A professor of Islamic studies at Marmara University in Istanbul, Turkey, he is an influential figure shaping Japanese Muslim society. His tea ceremony is taking place not in a traditional tea house but before a seated audience ranging from students to elders in Tokyo's main congregational mosque. At the age of only 33, Yamamoto has developed what he calls an "Islamic tea ceremony" as an experiment, an innovative public workshop in which new links of understanding can be forged between Japan's roughly 0.1-percent Muslim population and the rest of the country's people, almost all of whom follow Buddhism and Japan's homegrown religion, Shinto. "The point is to help people acquire the power of interpretation, the intellectual muscles of critical thinking and critical understanding of this world," Yamamoto says. "We, as Muslims, can contribute to the prosperity and diversity of Japanese society."

Before preparing the next bowl of tea, Yamamoto explains how tea drinking originated in China and spread to Japan about 1,300 years ago. It developed its ceremonial aspect in the 16th century thanks to the artist Sen no Rikyū, whose Zen Buddhist interpretation became dominant. "But if you examine its early history," he adds, "you find a samurai tea ceremony, a merchant tea ceremony, even a Catholic priest tea ceremony. The ritual was created as a format to express an individual's understanding of divinity, nature and humanity."

In a Zen Buddhist tea ceremony, he continues, the tea master will ask guests to contemplate a hanging scroll decorated with a character or phrase drawn from ancient Chinese poetry. But Yamamoto contends that the same device can be interpreted in other ways: In this tea ceremony, he displays a scroll in Chinese characters showing the word *muga* (nothingness), which refers to

**ABOVE** Shigeru Shimoyama, a public affairs officer at Tokyo Camii, explains the mosque's history to a group of visitors in the main prayer hall. **BELOW LEFT** A Qur'an lays open near a window inside Tokyo Camii.

the annihilation of ego, alongside another scroll with a beautifully fluid example of Ottoman Turkish calligraphy forming the word *hiç*, which also means nothingness. The visual and philosophical interplay between the two is striking.

Yamamoto says that by using an Islamic hanging scroll, he "wants to show a harmony between Japanese traditional culture and Turkish traditional culture." He is wearing a kimono—a traditional loose, wrap-around robe—and he relates it to similar garments worn in Arab societies. He carries a fan, a highly symbolic item usually printed with a Zen poem used in a tea ceremony to define respect between master and disciple and to mark a division between the natural and the supernatural—but Yamamoto's fan instead features classical Islamic poetry, drawn from the 18th-century Chinese *Han Kitab* tradition. One object synthesizes multiple cultures.

Islam's history in Japan is almost entirely recent, although there are records of contacts between Muslim cultures and the peoples of what is now called East Asia over more than a millennium. Early Muslim sources mention Waq Waq, an island located near China that, according to ninth-century Persian geographer Ibn Khordadbeh, was wealthy enough to export gold and ebony. Some scholars have theorized that Waq Waq may have been Japan, though Java or Sumatra—or another of the islands making up modern Indonesia—may be more reliable candidates.

Stronger evidence of contact is provided by a map produced in Baghdad around 1074 CE by Turkic scholar Mahmud al-Kashgari, which depicts an island named Japarqa lying to the east of China. Sporadic encounters over the following centuries ended in 1603 when Japan's rulers effectively sealed the country off due to factors such as the expansion of trade and internal domestic political shifts, barring Japanese people from leaving and permitting very few non-Japanese people to enter.

The story picks up again in the late 19th century, soon after Japan had reopened to the outside world. In 1887 Japanese diplomat Akihito Komatsu visited the Ottoman capital, Constantinople. Three years later, the Ottoman Sultan Abdülhamid II returned the compliment, sending the naval frigate *Ertuğrul* to Japan to consolidate relations—but on its return journey the vessel foundered in a storm off the coast of southern Japan. Hundreds of crew and passengers died. The 69 survivors were supported by Japanese communities and then escorted home by the Japanese navy.

With them traveled Shotaro Noda, 23, a journalist who stayed in Constantinople to teach Japanese to Ottoman military officers. He lived there almost two years, and it is believed he was the first Japanese person to become a Muslim, taking the name Abdulhalim in a ceremony on May 21, 1891. Noda later abandoned his faith, and the first Japanese pilgrim to Makkah seems to have been scholar Kotaro Yamaoka, who took the name Omar after becoming a Muslim in 1909 and went on Hajj the same year.

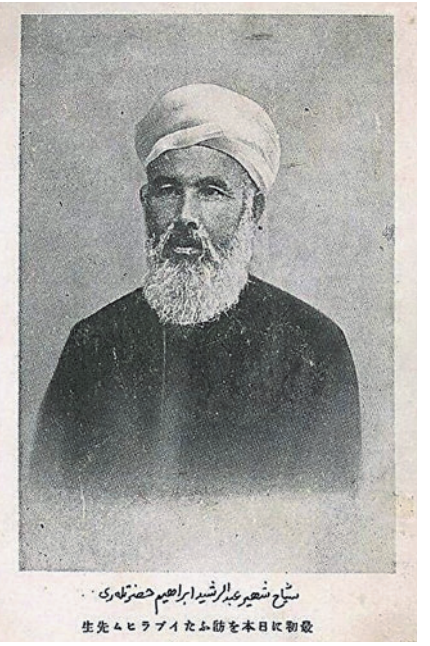
But the early Japanese Muslims "were nationalists first of all, and that they all devoted themselves, even spiritually, to the cause of the Japanese Emperor," writes Tokyo University professor Kojiro Nakamura. Yamaoka was in fact working on behalf of Japan's imperial government to gather "intelligence on the Islamic world," says sociologist Akiko Komura, even though Yamaoka's acceptance of Islam seems to have been genuine and lasted to the end of his life.

Yamaoka's inspiration and spiritual guide—who also worked closely with the Japanese authorities—was the Tatar writer and activist Gabdrashit Ibrahim, born in Russia in 1857. Ibrahim traveled widely to Europe, Arabia, around the Ottoman Empire and across Central Asia to China and Japan, speaking publicly and publishing newspaper pieces campaigning for pan-Islamic solidarity and Muslim liberation from Russian imperial rule.

Though Russia's monarchy fell in the Revolution of 1917, Muslim liberation did not follow, and subsequent hostility to religious observance prompted an exodus of Turkic Tatar Muslims. Within a few years, several thousand had settled in Tokyo and port cities including Nagoya and Kobe, where they added to the small communities of Muslim Indians, Arabs and others. News of their positive reception traveled fast: Accounts of Japanese society in Persian, Turkish, Urdu, Malay and Arabic circulated widely, scholars traveled to exchange knowledge, and import/export merchants did lively business. Under the charismatic guidance of the Tatar rebel commander Muhammad Abdulhayy Qurban Ali, who led a group of followers east to escape Russian persecution, Tokyo's nascent Muslim community established a school and prayer room in 1927, and the city's first purpose-built mosque in 1938, where Gabdrashit Ibrahim served as its first imam.

But Tokyo Camii was not the first mosque in Japan.

Less than three hours from Tokyo by high-speed bullet train, Kobe is today a cosmopolitan waterfront city of 1.5 million, known as a major manufacturing center and the home of one of the most flavorful varieties of Japan's marbled Wagyu beef. Its reputation for openness originates in the decades either side of 1900, when Kobe pioneered global links of trade and culture fostered by expatriate communities of Indians, Chinese, Europeans, Americans and others. The foreigners tended to concentrate themselves in Kobe's international




**ABOVE** A photo of Gabdrashit Ibrahim, a Russia-born activist and writer who traveled throughout the Ottoman Empire all the way to China and Japan campaigning for pan-Islamic solidarity and Muslim liberation from Russian imperial rule. **BELOW** Mohammed Jaafar, the Pakistan-born imam of Kobe Muslim Mosque.

quarter of Kitano, which was characterized by terraces of ornamented red brick villas gazing down on the port below.

That architectural eclecticism is still on display on a stroll through Kitano's steep streets. The minarets of Kobe Mosque, established in 1935 shortly before Tokyo's mosque, still reach above the Kitano skyline of modern apartment buildings, within walking distance of churches, Buddhist temples, Shinto shrines, and a synagogue.

"At that time, Islam was barely known here," says Mohammed Jaafar, 33, the Pakistan-born imam of the mosque. As he pads, shoeless, along the mosque's corridors, his *shalwar kameez* illuminated by sunbeams filtering through yellow frosted windows framed by pointed arches, he describes how the building withstood bombing in 1945 and an earthquake in 1995: Framed photos on one wall show the mosque rising undamaged amid fields of rubble following both catastrophes. Jaafar relates the building's miraculous survival to the city's name: One meaning of "Kobe" is "The Door of God"—although the phrase references the city's 1,800-year-old Shinto shrine *Ikuta Jinja*.

On a rainy Friday in February, Jaafar stands at the door of the mosque greeting worshippers as they arrive for the midday prayer. The congregation numbers perhaps two hundred, with community origins ranging from Japanese, Malaysian and Pakistani to Nigerian, Uzbek and Uyghur. Several men are each wearing chef's hats and aprons, having negotiated a brief window of time off work in nearby restaurants.

Reyna Arifin, 19, of mixed Indonesian and Chinese background, has come to pray with her family from the nearby city of Osaka, where she lives in an "open community of Japanese people who are curious about Islam." As she and her mother, who wears the hijab, discuss their sense of Muslim identity—"strong!" she laughs—her brother Reyhan, 18, joins the conversation. He is studying at a university in Oita, a small city around 500 kilometers west of Kobe, where he speaks of "a sense of treading on eggshells around religious observance—you have to be careful not to overstep social bounds," he says, because mainstream Japanese society "does not hold to any religion."


**LEFT** On display in the lobby of Kobe Mosque, a photo shows the mosque standing amid the destruction of the city during a bombing in World War II. **BELOW** Today, Kobe Mosque is surrounded by modern apartment buildings.

**LEFT** In order to cater to Tokyo's growing number of Muslim visitors, Toshihiro Maki, head chef at Sushi Ken in the busy Asakusa district, adjusted the restaurant's ingredients to secure halal certification in 2017.

Despite the tens of thousands of Buddhist and Shinto shrines around Japan, and almost universal participation in the rituals of worship, Arifin's counter-intuitive view is borne out by others. Tokyo management consultant Manae Shimizu, 25, asserts that in general, religion is marginal in Japanese society compared with many other cultures. Ritual at shrines, she adds, is mostly "to preserve cultural tradition."

Saeed Sato, 49, director of the Japan Muslim Association, speaks instead of Japan's "department store of religions," from which he says people will cherry-pick appealing elements of Buddhism, Shintoism, Christianity, even humanism. "They prefer to define their worship as habit rather than religion. There is a fear that clarity of expression will raise conflict, so ambiguity is preferable," says Sato, whose Japanese-language interpretation of the Qur'an was published in 2019.

This spotlights the importance of *wa*, a complex term usually rendered as "harmony." It implies social conformity or valuing the maintenance of harmonious relationships above the urge for individual advancement. *Wa* and the avoidance of dispute is evident in every part of Japanese society, from the deference and interpersonal respect shown by strangers on the street to hierarchies of order within families and businesses.

"Islamic practice is often considered as breaking wa," adds sociologist Akiko Komura, giving the example of Muslim employees negotiating time off for prayer as sometimes raising hackles for challenging staff solidarity within companies. She acknowledges that the acceptance of diversity in Japan is rising, even if it might mean the majority is merely ignoring the needs of minorities rather than accommodating them.

Nevertheless, where Islam is visible, mainstream interest in the religion and its outlooks appears buoyant.

In the lobby of the Tokyo mosque, public affairs officer Shigeru Shimoyama, 73, is raising his voice to explain the basics of Islam to a group of around a hundred visitors, all Japanese, none of them Muslim. The mosque advertises free weekend tours on its Facebook page, and every Saturday and Sunday similarly large crowds of people show up, Shimoyama says.

At the edge of the group stands Akari Fujimoto, 24. "I saw Islamic architecture in a textbook, which sparked my interest. Then I found we have this in Tokyo too—so I came to see the real thing," she says, adding that she had never set foot in a mosque before.

Tokyo's original 1938 mosque survived World War II but, by the 1980s, had become structurally unsound. It was demolished, and its replacement opened in 2000 under the direction of the Turkish government, renamed "Tokyo Camii" (*camii*, pronounced JAHM-ee, is a Turkish word of Arabic origin meaning mosque). The strikingly ornate building, which stands on an otherwise unremarkable leafy boulevard in the Yoyogi district, was designed in Ottoman style by architect Hilmi Senalp. Its slender minaret and 23-meter dome crown an ethereal prayer hall of white and turquoise marble detailed in gold. For Friday prayers, roughly 500 worshippers cram inside, with another 200 or more praying in outdoor courtyards. The service, including the weekly sermon—delivered in four languages (Japanese, Turkish, Arabic and English)—is live-streamed online.

As Shimoyama leads the visiting group upstairs to view the prayer hall, Muhammet Rifat Çinar, 40, Tokyo Camii's immaculately groomed Turkish imam, notes that the mosque has been

**TOP** Chef Toshihiro Maki shows the circular halal mark on a jar of alcohol-free vinegar that he uses in his dishes. Grocery stores supplying halal products are opening all across Tokyo, including, **MIDDLE**, in the lively Shin-Okubo district. **BELOW** Halal certificates awarded by two different organizations stand on display in the Sushi Ken restaurant.




declared a Japanese national monument. "People come here as if to a museum. They see it as a site of cultural interest," he says.

Yet he is adamant that hostility is virtually non-existent. "I never experienced it here. I asked former imams and they say the same. It's great to live in Japan as a Muslim."

More than any other recent event, Japan's preparations for the 2020 Tokyo Olympics have led to broader recognition for both Muslims and other minorities. Expecting to be hosting millions of fans from all parts of the world, in the years leading up to the games, public and private sector entities embarked on intensive research into halal food (meaning food that is permitted under Islamic dietary laws). Many company managers "came to the mosque to learn what halal means, and how to cater to Muslims," says Cinar.

In the end, COVID-19 caused the Olympics first to be delayed, and then staged mostly without spectators—but the advances in understanding and logistics persisted. Tomohiro Sakuma, 58, runs the Japan Halal Business Association, a consultancy firm advising Japanese food producers on halal certification for export. He guides clients through the thicket of regulation and varying quality standards surrounding more than 400 forms of halal certification worldwide, 30 of them in Japan. Gaining certification can open new markets overseas, but a side benefit is improved labelling of ingredients and widening availability of halal food inside Japan. Sakuma is plain about his motivation: "Clients contact me precisely because I am not Muslim, because this is a commercial initiative. They understand I am doing this purely for business purposes."

That attitude is widespread. Halal food stores are popping up around Tokyo, and are mostly low-key outlets in or near neighborhood mosques, offering basic essentials imported from Asian, African or Arab countries. Hidden away behind Tokyo's glittering "Koreatown" district of Shin-Okubo, a narrow lane informally known as "Islamic Street" houses a

Abdullah Kobayashi, **TOP**, was born and brought up in a traditional Japanese non-Muslim family in the Nagano mountains west of Tokyo, and now is the imam of Tokyo's Dar al-Arqam mosque. **BELOW** Saeed Sato, director of the Japan Muslim Association, whose Japanese-language interpretation of the Qur'an was published in 2019, describes Japan as a "department store of religions."

handful of South Asian halal grocery stores and snack outlets. A few hotels around Japan offer halal food, gender-exclusive spaces and prayer rooms for Muslim visitors.

Yet the run-up to 2020 also saw instances of mainstream expansion. Sushi Ken, in Tokyo's popular historic district of Asakusa, became the city's only halal sushi restaurant in 2017. It remains so today, and proudly displays its certificates. "Every time Muslim tourists from Malaysia or Singapore visited the restaurant, I would have to explain what ingredients go into the sushi—and they would be so disappointed they couldn't eat it," says head chef Toshihiro Maki, 54. "I knew nothing about Islam, and this became a trigger for me to research."

Sushi is almost all made with fish and seafood. Maki describes how his team first incorporated halal meat into their non-sushi dishes, but then chose to drop meat altogether for simplicity's sake. Then they eliminated alcohol, by removing sake (rice liquor) from steaming methods and changing suppliers of such key ingredients as soy sauce and mirin (rice wine), which usually contain alcohol. Their *gari*, slices of pickled ginger served alongside sushi, is now alcohol free.

"Nobody noticed the change," Maki grins. "I don't want to break the trust of my long-standing Japanese regulars, and they are so surprised to learn that everything they eat here is halal. My customers are now about half and half, Muslim and non-Muslim."

Maki acknowledges that halal certification was partly a business decision, but he also points out that chefs will routinely adjust menus for customers with food allergies or dietary restrictions. "It's the same thing," he says. "We are respecting and responding to our growing Muslim customer base."

That growing acceptability of difference is easing decision-making for the small numbers of Japanese people seeking to embrace Islam. No formal count has ever been done, but estimates put the number of Muslims in Japan between 100,000 and 200,000 amid a national population of 125 million. Of them, only a few tens of thousands are Japanese, many of whom became Muslim to facilitate their marriage. For the remainder, the motivation to accept Islam often originates in positive encounters with Muslim individuals. Mosque guide Shimoyama describes how the hospitality he was shown during a stay in Sudan aged 19 overturned his stereotypes about Islam. Hasan Mamoru Hasegawa, 22, speaks of a trip to Indonesia and a homestay with a Moroccan American family in the US For Kyoichiro Sugimoto, 46, it was a university friendship and subsequent invitation to visit that friend in Bangladesh.

Kyoko Nishida, 52, a translator in Tokyo Camii's publications department, remembers feeling a sense of spirituality as a teenager but being unable to pray. "My faith was like water: I needed something to hold it, and Islam was a good vessel," she says, while

Bride Dita arrives at the mosque in Kobe for her wedding ceremony, surrounded by family and friends.

adding with a laugh that her Japanese family still ask little about her religious observance, for fear of hurting her feelings—more evidence of wa.

"Everyone here has a hole inside. As a student I began to think that maybe foreigners fill that hole with religion," says Abdullah Kobayashi, 36, born and brought up in a traditional Japanese non-Muslim family in the Nagano mountains west of Tokyo, and now imam of Tokyo's Dar al-Arqam mosque.

> "I don't want to create an exclusive identity. In Japan now we have Pakistani Japanese Muslims, Bengali, Malay, Arab. They are all Japanese, and they are also all Muslims.
>
> —QAYYIM NAOKI YAMAMOTO

As Yamamoto's tea ceremony ends and he swaps his kimono for a suit jacket, he relates how he became a Muslim at the age of 19 after stumbling across a work by one of the few Japanese Muslim women scholars, Khawla Kaori Nakata. The way she "articulated the concepts of divinity and humanity was so profound," he says.

Yamamoto, an original thinker who sees patterns of commonality across apparently divergent cultures, discusses with enthusiasm how his spirituality "was formed by reading manga [Japanese graphic novels]." He explains how the genre's formulaic relationships between master and disciple emphasize repentance, learning from mistakes and moral growth. "Western culture focuses on defining your identity, but that's not enough. Definition is a moment. Japanese culture emphasizes a process. You build your identity by digesting experience with the guidance of a master. That's the manga method."

Yamamoto envisions the implications of this kind of cultural synthesis.

"I don't want to create an exclusive identity. In Japan now we have Pakistani Japanese Muslims, Bengali, Malay, Arab. They are all Japanese, and they are also all Muslims. If we create a narrow definition of "Japaneseness" we cannot cherish this diversity. Academics talk about how there is no similarity between Islam, which is monotheistic, and Japanese Buddhism and Shinto, which are polytheistic. In part, yes. But Islam also has a practical aspect, focused on striving and spiritual training—and that has lots of similarities [with Japanese outlooks]."

As he packs up his gear and heads out to the subway station, Yamamoto adds reflectively: "By adding our Islamic perspective, we, as Muslims, could help preserve and interpret traditional Japanese culture. Maybe we can become best neighbors."

**The writer thanks Tokyo-based journalist Makiko Segawa for her help in research and interpretation.**

**Matthew Teller** is a UK-based writer and journalist. His latest book, *Nine Quarters of Jerusalem: A New Biography of the Old City*, was published last year. Follow him on Twitter @matthewteller and at matthewteller.com.

**Naoki Miyashita** is a Tokyo-based freelance photographer and filmmaker. He specializes in documentaries that convey traditional culture, crafts and other local attractions.

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OPPOSITE BOTTOM: MATTHEW TELLER

# AZZA FAHMY'S JEWELRY SHINES WITH LOVE OF CULTURE

*Written by*
REBECCA ANNE PROCTOR

*Photographs Courtesy of*
AZZA FAHMY JEWELLERY

Working side by side in four rows of vintage wooden craft stations, some two dozen craftsmen are making, by hand at every step, some of the most elegant and artistically influential jewelry in the Middle East. The workshop belongs to jewelry designer Azza Fahmy, and it lies in the basement of a practical building that sets itself apart from the surrounding warehouses and showrooms with nods toward the historic architecture an hour's drive to the east in medieval Cairo. The quiet focus of the craftsmen lends to the room a meditative air as they meticulously sculpt, carve, solder, engrave and chisel sterling silver, gold and other metals to produce earrings, necklaces, bracelets, chokers and more with motifs that speak to Egypt's layers of heritage, from the pharaonic eras up to the present.

Born in 1945 in Sohag in Upper Egypt, Fahmy has become a legend in the world of artisanal jewelry from the Middle East. Her designs, now some of the most sought after in the Arab world and internationally, have long championed the history and culture of Egypt and the greater region with contemporary style, forms and vision. This includes references to the poetry of Lebanese poet and writer Kahlil Gibran, pharaonic

**ABOVE** From "The Golden Age of Arabic Love Songs" collection, earrings—made of gold and sterling silver adorned with pink gem stones featuring Ottoman-inspired crescents and stars holding geometric motifs—are inscribed with the words of Emirati poet Salem Al-Khalidi, sung by Saudi Arabian artist Abdul Majeed Abdullah and composed by the Saudi Arabian Mamdouh Seif, *Ya Tayyeb al Galb*, "the one with the tender heart." **RIGHT** Celebrated as one of Egypt's most influential women in fashion and design, Azza Fahmy has creations that translate the MENA region's culture, art and historical references to the world through contemporary jewelry, capturing the attention of cultural buffs and fashionistas alike. Her design approach is unique and includes in-depth research and attention to historical craftsmanship and preservation.

symbolism, Mamluk architecture, Egyptian modernism and vernacular cultures.

"Jewelry is intellectual, for through it we can share our Arab history, culture and identity with the world," says Fahmy in her office adjacent to the downstairs workshop. She sits nonchalantly at her table made from an old Egyptian heritage door and covered in glass, as she takes a sip of her coffee. "I do what I do with love," she says with a smile. "A love for my country, a love for jewelry and a desire to share this with humanity."

She also does it with passion to research the vast sweep of histories in her homeland and to then interpret them in jewelry. Fahmy graduated in 1965 from Egypt's Helwan University with a bachelor's degree in interior design, and in 1969 she discovered a book about medieval European jewelry design. Transfixed and enchanted, she says it was then she became aware of her true calling. While continuing her day job illustrating books for the government, Fahmy broke into a traditionally male world to train under the master goldsmiths of Khan el-Khalili, Cairo's historic bazaar.

"I tied my hair back, put on my overalls and spent my days in a workshop full of men learning the tricks of jewelry making," she recalls on her website. "I never thought of what I did as unusual or difficult. I just did it with love, and it happened," she says from her office next to her workshop. "I never thought, 'I'm a woman, I can't do this, and I am in an environment only for men.' I saw my early training as an experience, a flow and a way to learn. I continued to meet many people and craftsmen who inspired me. I did

what I did because of my love for jewelry." While the craftsmen at Khan el-Khalili perfected their familiar designs laden with pharaonic motifs, Fahmy watched, studied and took her own novel direction into a fusion of past and present within the forms and styles of the contemporary. A British Council grant gave her the chance to study at the London Polytechnic's Sir John Cass College, where she also learned techniques of manufacturing.

She came back to Egypt soon afterward. "I can't leave Egypt," she says. "I am like a fish—if you take me away from the country, I won't be inspired, I won't be able to create what I do here." In Cairo she set up her first eponymous atelier with two employees, and she set out to design pieces imbued with Egyptian history and culture with a focus on often overlooked aspects. One of her first collections, Houses of the Nile, created during the 1980s, was inspired by the traditional architecture, unique geometric decorative pattens and Nile-side palm trees of Nubia, the historical land that straddles today's boundary between Egypt and Sudan. Crafted with a realism rare in fine jewelry—so much as to make the pieces akin to dioramas—she was yet able to shape them with

A young Azza Fahmy took to her craft at a young age, shown at **OPPOSITE TOP** making jewelry at the top Khan El-Khalili *suq* in Cairo. During a book fair in 1969, Fahmy discovered a German art book about classical jewelry of Medieval Europe. Fahmy evolved her approach to jewelry design to include deep historical and cultural research, **ABOVE**, that then translates into sheik contemporary jewelry shown in framed art in her office **OPPOSITE RIGHT**. The "Love & Rebirth" single earring, pictured **OPPOSITE BOTTOM LEFT**, is inscribed in Arabic with the word "love." **BOTTOM RIGHT** A pair of earrings reads "*Zeedeeny ishqan zeedeeny*" (make my passion grow). **BOTTOM LEFT** A Mamluk-era-influenced design includes the Arabic inscription "*Mawada wa Rahma*" (love and mercy).

Azza Fahmy's design house is where unique design concepts come to life, from hand sketches to gem selections, **TOP LEFT AND CENTER**, to the flattening and twisting of filigree patterns and hand-pierced metals by hand. The skilled gold and silversmiths, **RIGHT**, operate under a historical Ottoman hierarchy of master/trainer/trainee using some jewelry-making techniques that are thousands of years old. **OPPOSITE BOTTOM** A craftsman puts the final touches on a scarab ring.

the abstract curves and forms of contemporary sculpture. The result was an act of cultural preservation: Both the wearer and the viewer feel that these houses, many of which no longer exist, are still present, living designs.

In 1990s she furthered what was becoming her signature style, this time through contrasting combinations of gold and silver, and this led to her trademark Pharaonic Collection. It was work that, she explains, took years of research as well as the advice of an Egyptologist, all to produce a jewelry line that reflected both a modern spirit and a fidelity to historical facts.

"Jewelry has always been an important part of Egyptian culture because it was a way to prepare for the next life," she explains. Through this emphasis on marrying the past and the present through elegant craftsmanship and attention to detail that ranges from elemental to extravagant, Fahmy has pioneered the popularity of intellectual jewelry—jewelry that is an object of esthetic beauty and also serves as a document of heritage.

More recently several of Fahmy's collections have incorporated quotes from poems and proverbs in Arabic that celebrate the heritages of Arab-world scholars, poets and writers. This has proven inspiring to other designers in the region, such as Dubai-based Nadine Kanso, whose Bil Arabi line similarly celebrates not only Arabic literature but also the beauty of its calligraphic forms.

"Azza Fahmy is inspiring younger generations of Egyptians to become artists and designers and work with their hands like a traditional craftsperson," says Egyptian architect Omniya Abdel Barr, who adds that until Fahmy became well known in Cairo, Abdel Barr's own grandmother would never have worn a ring with a design referencing ancient Egypt. "When she began 50 years ago, this was unheard

"Azza Fahmy is inspiring younger generations of Egyptians to become artists and designers and work with their hands like a traditional craftsperson."

—OMNIYA ABDEL BARR, EGYPTIAN ARCHITECT

**TOP** A model wearing the Qalawun cuff and Mamluk Star earring from the Mamluk-era inspired collection titled "Culture '20." In her collection "The Golden Age of Love Songs," Fahmy commemorates the romantic-era of Arabic songs from the '60s through the '90s. Each piece is inspired and named after an artist with lyrics crafted into each piece. **BELOW** A model wears the Wadih El Safi Necklace with the lyrics written by Hussein El Sayed inscribed "Her eyes captured my heart, my mind left my body and I fell in love, I lost my mind." Also worn are the Nizar Qabbani Ring, Diamond Crescent Ring, The Warda Ring, Sayed Darwish Ring, Laila Mourad Ring and Blessing Hoop Earrings.

of. To engage with such crafts was done by different social classes. Azza elevated the rank of craftsmen, made us feel pride in traditional crafts, and in Egypt's heritage," says Abdel Barr.

Fahmy attributes much of her love for discovery and celebration of her homeland to her father. Even at age seven or eight, and living in Upper Egypt, she recalls her father taking her to visit monuments. And at home, she adds, "we had a huge library filled with books where I could study, and then he would take me to different parts of Egypt where I learned about the Pharaohs, the Copts and other periods and cultures," she recalls. "It made me curious to learn more, and this was thanks to my father."

Fahmy has always been a diligent student. She is also the author of books including *Enchanted Jewelry of Egypt: The Traditional Art and Craft* (2007), *The Traditional Jewelry of Egypt* (2015) and *My Life in Jewelry: A Memoir*, which she wrote in Arabic together with Sarah Enany, and which is forthcoming in English this fall.

"Azza Fahmy is always eager to learn, and that is something that I love about her," adds Abdel Barr. "She's taught me that it is never too late to learn and to dedicate oneself to what they love. That is why her business is so successful. She cares about quality and the message she's delivering. She cares about being authentic and genuine. Azza always says, 'We design, we don't copy.' In this

way she is constantly trying to promote Egyptian art and culture whether it is through her jewelry with their sculptured architectural design or through her written words."

It's this personal and genuine way of expressing her love for Egyptian culture and heritage that has gained Fahmy such a dedicated fan base among Egyptian and international celebrities and designers. Friends of her brand include Egyptian model and actress Elisa Sednaoui, Jordanian actress Saba Mubarak, Tunisian-Egyptian actress Hend Sabry, Egyptian actress and singer Yousra and Egyptian soprano Fatma Said. Over the last two decades she has found a growing international market largely through fashion as well as educational and cultural partnerships. These include collaborations with Preen, Matthew Williamson and Julien Macdonald at London Fashion Week in 2006 and with Justin Thornton and Thea Bregazzi at New York Fashion Week in February 2010. In early 2012 Fahmy worked with the British Museum to create a custom collection for its landmark exhibition *Hajj: Journey to the Heart of Islam*, inspired by the pilgrimage and its rituals. Most recently, in 2022, she collaborated with Balmain's Creative Director Olivier Rousteing on a one-of-a-kind bustier inspired by Egyptian symbolism.

Since 1988, when she opened her first gallery, El Ein, with her sister Randa in Cairo's Mohandessin neighborhood, Fahmy has launched numerous boutiques, concession stores and flagships in Egypt, and now internationally in London, Dubai, Amman and AlUla, Saudi Arabia. While the business continues to grow and a launch into the US market is in the works, her nine-year-old Azza Fahmy Foundation encourages young designers in Egypt and across the Middle East and North Africa.

Azza Fahmy has shared her passion and business with her daughters, Amina Ghali, left, and Fatima Ghaly, right, who are heavily involved in running the Azza Fahmy company and brand together. Amina is the head designer and Fatima is the CEO.

"It's crucial to give back and teach the next generation of designers," she says, "particularly those with few opportunities." The foundation was created to offer job opportunities, vocational training and start-up support in craft-based industries to marginalized Egyptian youth. Its focus on crafts both Egyptian and from cultures around the world ensures the preservation of traditional craftsmanship—a practice continually under threat.

Fahmy also in 2013 established The Design Studio by Azza Fahmy, in partnership with Florence, Italy's Alchimia Contemporary Jewelry School. This studio serves primarily as a jewelry-making vocational school, and it was the first of its kind in Egypt and the Arab world. With courses that blend traditional techniques with alternative creativity, it is shining a spotlight on Egypt as a growing hub in the Middle East for jewelry design.

It would be easy to regard these schools along with her many jewelry creations and dedication to a handmade process as her legacy. But that is not how she sees it. "Jewelry as an expression of love is a notion that has colored all my work," she says, smiling again. "I don't want to leave a legacy. I just want to leave love."

**Rebecca Anne Proctor** is an independent journalist, editor and broadcaster based between Dubai and Rome. She is a former editor-in-chief of *Harper's Bazaar Art* and *Harper's Bazaar Interiors*.

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# DRONES MANGROVES AND CARBON SUPERPOWERS

WRITTEN BY **BELIZ TECIRLI**

**Thick, tangled and not particularly Instagram-ready, mangroves are low-profile denizens of salty, swampish, tidal coastlines around the world. Despite lacking the grandeur of redwood forests or the allure of sandy beaches, mangroves have been drawing increasing global attention for a quiet superpower: the ability to store up to five times more carbon than tropical forests. While coastal development, uncontrolled aquaculture, sea-level rise and warming temperatures have all contributed to the 35 percent decline in mangrove forests worldwide since the 1980s, government agencies, scientists and local communities are increasingly rallying to protect and replant mangroves. One group is taking restoration to notably new heights.**

A warm breeze brushes half a dozen technicians along the shore of Abu Dhabi as they huddle around a six-propeller drone the size of a small circular coffee table. These experts from Distant Imagery, a privately owned United Arab Emirates-based company founded in 2017, are loading the drone's undercarriage with some 2,000 mangrove seedballs—germinated seeds and essential nutrients. Once over the target planting area, the drone's "seed drop" will take about 10 minutes, and an estimated 48 percent of the seedballs will take root and grow. The same plantings by hand would take immeasurably longer and require dozens of people. The technicians close the hatch and smile as the hive-like whine of the propellers fills the air, and the mangroves-to-be are taken to the sky.

Mangroves have thrived along tropical and subtropical shorelines around the world for some 75 million years, and they are comprised now of more than 50 species distributed among five scientific families. Some mangroves grow directly along the shore, and others inhabit wetlands farther inland, sometimes up to 50 kilometers. In recent decades their populations have been in sharp decline due to widespread development, as well as cyclones and rising sea levels associated with climate change.

Along coasts of the African continent, nearly 1,000 square kilometers—almost the size of Hong Kong—of mangrove forests have been lost from 1975 to 2013. In the Philippines, 50 percent of mangroves have died out since the 1990s. According to a 2020 study by NASA Earth Observatory, at least 62 percent of mangrove loss is tied directly to human activity, while much of the remaining 38 percent comes from erosion that often has indirect links to human activity, too.

The costs of mangrove losses are increasingly well-known to be higher than previously imagined. As one of the only tree species that can tolerate saltwater, every mangrove forest—from the US to Nigeria, to Indonesia and Oceania—provides a plethora of benefits for its environment. Carlos Duarte, research professor in marine ecosystems at King Abdullah University of Science and Technology

**PREVIOUS SPREAD** A drone developed by UAE company Distant Imagery drops around 2,000 germinated seeds in nearly 10 minutes. This new process allows the seeds to be planted faster and in harder-to-reach areas—early results indicate a 40 percent success rate. The seeds can then grow into seedlings, like those, at left, and later measured. The hope is a cluster of trees growing to create a forest that protects the land from wind and sea—which in turn increases biodiversity, purifies the water and acts as a carbon sink, as it collects carbon dioxide from its tall branches and deposits it into the soil as shown, **OPPOSITE RIGHT**, in Raja Ampat, West Papua, Indonesia.

OPPOSITE PAGE RIGHT: WATERFRAME / ALAMY STOCK PHOTO; LEFT AND OPPOSITE PAGE LEFT: DISTANT IMAGERY

## SCIENCE INFLUENCES POLICY

**The 1971 Convention on Wetlands is one of the first intergovernmental conservation treaty that focused primarily on wetlands, of which mangroves are a part. It provided a framework for national actions and international cooperation. As of 2021, 172 nations are signatories, and they meet every three years to adopt resolutions to administer collaborations, coordinate policymaking, capacity-building and technology transfer. Signatories designate Wetlands of International Importance, because the Convention recognizes the importance of protecting not just single sites but also networks, linked chain-like, often over long distances, by the essential requirements of migratory birds for breeding, wintering, resting and feeding. For its part, the Blue Carbon Initiative has helped integrate the concept of blue carbon into international agreements in 2019 at the 25th Conference of the Parties (COP25), the United Nations Framework Convention on Climate Change introducing guidance to help countries incorporate mangroves and other blue carbon sources into their national policies. As a result, Australia, Bangladesh, Colombia, Fiji, India, Indonesia, Saudi Arabia, Mexico, Pakistan, Seychelles and the United Arab Emirates—all countries with significant mangrove environments—committed to include blue carbon in national climate plans. For its part, India announced plans to restore 26,000 hectares of mangrove forests before 2026—that's more than twice the size of metropolitan Paris—and Indonesia aims to plant 9 million hectares—the size of Cyprus—by 2030. The UAE has committed to planting 100 million mangrove trees by 2030, and in Saudi Arabia some 7 million seedlings were planted in 2021 alone.**

**ABOVE** A group of recreation kayakers get a closer view of mangrove tree roots sinking into the water while paddling in Krabi, Thailand. **LOWER** A sign highlights the need to protect the trees in Guyana, a country whose mangrove tree population has suffered devastating losses. Mangroves can reach 30 feet in height and have strong roots protecting low-lying areas from high seas and winds from storms like Cyclone Bulbul, **TOP RIGHT**, shown over India and Bangladesh in November 2019.

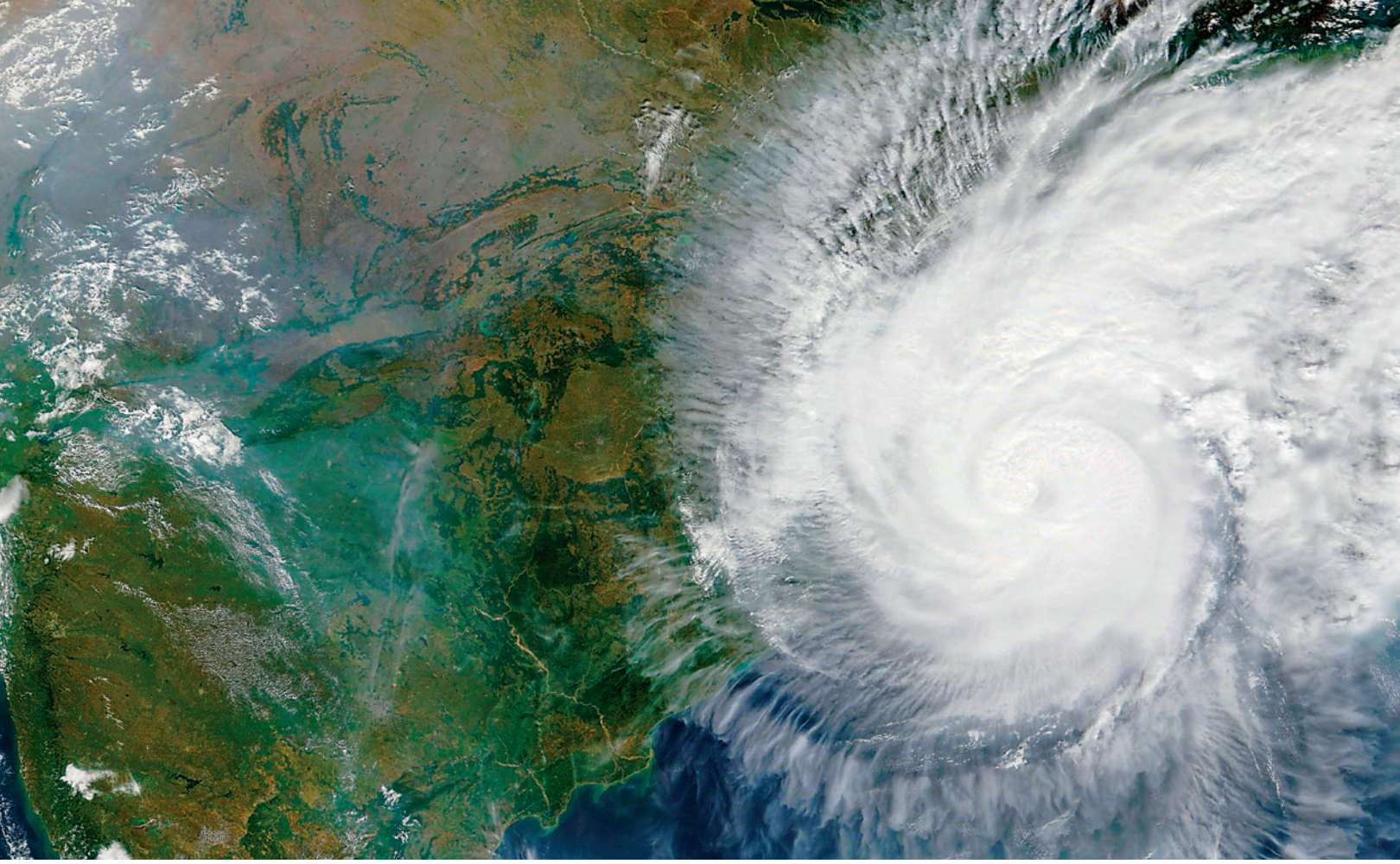
(KAUST), located along the Red Sea coast of Saudi Arabia, explains that mangroves, especially those that extend tens of kilometers inland, "protect our shorelines from sea level rise and storms and support food security through their role in nurturing fish stocks."

Mangroves also stand as many a coastline's first line of defense against storm-driven tides and coastal winds. This simultaneously shields coastal areas from erosion and helps protect inland human communities.

The intricate but tough mesh of mangrove roots, which tangle both above and beneath the surface, also provide often unique habitats for many aquatic and other species. "Mangroves provide essential habitat for birds, crabs and hundreds of invertebrate and fish species, many of which use the mangrove as their nursery during the early life stages of the species," says Duarte. While this environment primarily benefits marine life, other species—from jaguars to sea eagles—also cash in on the sanctuary mangroves provide. According to a 2021 report published by the Global Mangrove Alliance, some 341 vulnerable, endangered or critically endangered species call mangroves home.


Economically, mangroves are also important to local communities for fish, rot- and insect-resistant wood stocks, and even leaves that can be used to feed cattle, sheep and goats. Mangroves are also increasingly popular with wildlife enthusiasts and environmental tourists.

While beneficial, even these qualities are increasingly eclipsed in importance by mangroves' carbon capture. They "sink" captured $CO_2$, microalgae, and other dead organic matter trapped by their net of roots into sea mud beneath them. This is carbon that is then able to be stored, undisturbed, for centuries, even millennia, as carbon-based matter degrades much more slowly underwater due to lack of oxygen. Over time this material accumulates into a carbon stock known as blue carbon which is,



according to Duarte, some five times denser than what a tropical land-based forest can store. In practical terms, this means that each square kilometer of mangroves can sequester the annual emissions of approximately 35,000 cars. (Unfortunately, blue carbon works the other way around, too: The destruction of mangrove forests releases their stored blue carbon.)

> "Mangroves sequester around five times more carbon than tropical forests on land and provide more likelihood of permanent sequestration."
>
> —CARLOS DUARTE

Alfredo Quarto, executive director and cofounder of the US-based Mangrove Action Project, claims that the value of mangroves and their stored blue carbon is only beginning to be recognized. "Back in 1992, mangroves were valued at around [US] $740 per hectare, mainly for fisheries and raw timber. But with climate change and the great need for coastal protection from storm surges and hurricanes, they are now valued from around $30,000 to $300,000 or more per hectare."

Smithsonian Institution co-coordinator for marine conservation Steven Canty adds that while official studies value mangroves at US $193,843 per square kilometer, that figure doesn't "adequately integrate social and cultural value" that further bolsters their value.

This change in the economic equation is behind much preservation and restoration, and according to the Mangrove Action Project, the worldwide rate of loss has begun to slow from almost 50,000 hectares to around 21,000 each year. "It is encouraging to see that rates of loss of mangroves have declined over the last 30 years," explains Quarto, "but there still is an urgent need to halt all further loss."

In Saudi Arabia, Aramco, the integrated energy and chemicals company, is leading a concerted effort to establish new forests along the country's coasts. Since 1993 the company has planted more than 4.3 million mangrove trees at sites along the Arabian Gulf and Red Sea coasts and created the Mangrove Eco-Park nature reserve in Ras Tanura, Saudi Arabia.

As the black dot of the drone appears to hover above the hazy horizon, one of the technicians announces that the seedballs are being released. At a distance, it isn't actually visible, but Jane

## WHAT IS **BLUE CARBON?**

**Wood, leaves, fish and animals, and other dead matter that collects underwater is known as "blue carbon." The term was coined in 2009 to highlight the importance of marine and coastal environments in storing carbon for mitigating climate change and understanding it offers a new way to think about slowing releases of carbon dioxide. Together with tidal marshes and seagrass meadows, mangrove forests are one of the world's richest environments for blue-carbon deposits.**

TOP: CLAUDIA WEINMANN / NASA / ALAMY; BELOW: MJ PHOTOGRAPHY / ALAMY; OPPOSITE TOP: NICK FOX / ALAMY


Manfaat Mangrove
Hutan Bakau

**ABOVE LEFT** In Abu Dhabi, traffic flows along Al Salam Street next to the Eastern Mangrove National Park showing a delicate interaction between people and nature. **TOP** In the Indian Sunderbans, a wild Bengal tiger cub looks out from the cover of a mangrove forest. Mangroves provide protection to creatures large and small, on both land and sea. **LOWER LEFT** In efforts to educate the next generation, children are taught the benefits of mangrove forests in an environmental class in Dudepo, Bolmaang Selatan, Sulawesi, Indonesia.

## MANGROVE SUPERPOWERS

**Biodiversity**
Ecosystem for thousands of animals and plants

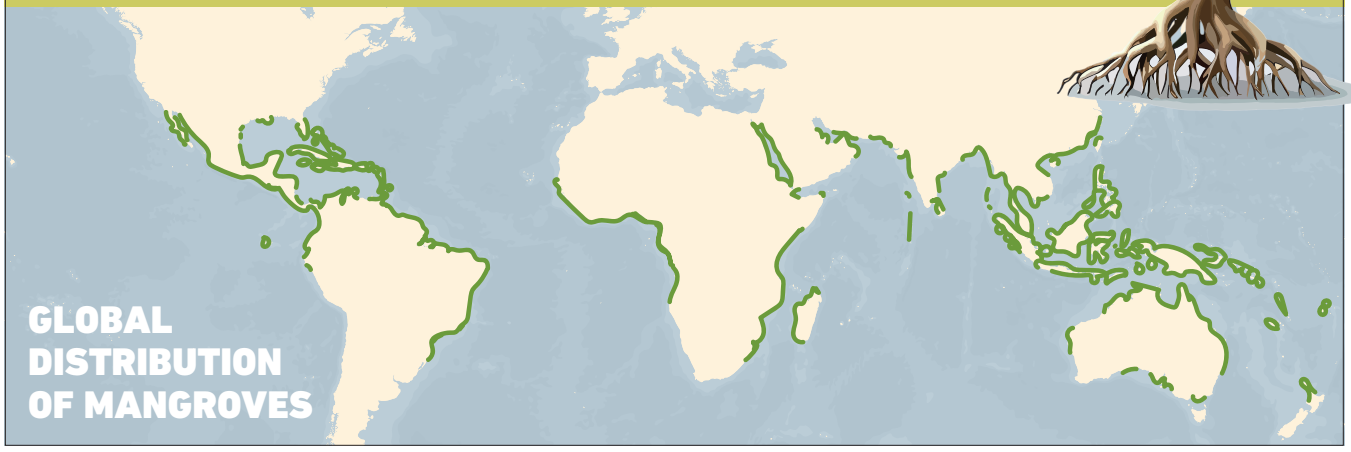
**Carbon sink**
Can store up to five times more carbon than tropical forests

**Purifier**
Their complex root system filters pollutants flowing in from streams and rivers, purifying the water, and some can excrete excess salt through their leaves

**Storm shield**
Creates a buffer against wind, tides and erosion, stabilizing the soil and reducing flood levels

**Provision**
Provides resources including plant extracts for medicines, livestock feed and a habitat for food

SOURCE: EARTHDAY.ORG AND NATURE.ORG




ARINDAM BHATTACHARYA / ALAMY; OPPOSITE BELOW: MATTHEW OLDFIELD / SCIENCE PHOTO LIBRARY

**ABOVE AND BELOW:** Connecting the environment, conservation, education, research and innovation together on 63 square kilometers of wetlands, Aramco, the energy and chemicals company of Saudi Arabia, built Mangrove Eco-Park, the country's first such park, in Ras Tanura in 2022, to heighten the awareness of mangroves and protect and enhance biodiversity. An estimated 100,000 people annually visit the park. Getting wet and a little dirty, **LOWER RIGHT**, is just part of the job while planting mangrove saplings by hand on Pulicat Lake in Tamil Nadu, India. **TOP RIGHT** Successfully planted by drone, mangrove leaves shoot up from the water and may become the next mangrove forest in the United Arab Emirates.

Glavan, cofounder of Distant Imagery, explains that to date her company has planted some 1.5 million mangrove trees this way. "From our understanding, we are the first in the world to successfully restore mangroves with drones." She hopes to make the method universally accessible: The custom-built drone, she says, can be replicated by anyone with access to a 3-D printer.

In addressing loss, restoration and the future of mangroves as a carbon-holding resource, all of science, policy, technology and community come into play.

Since 2011 the Blue Carbon Initiative (BCI) has united nongovernmental organizations Conservation International and the International Union for Conservation of Nature with the Intergovernmental Oceanographic Commission of UNESCO to improve collective access to scientific data. In 2017 the BCI created the Coastal Carbon Coordination Network with the Smithsonian Environmental Research Center and other partners, which is accelerating discovery in coastal carbon science and centralizing sharable data in the Coastal Carbon Atlas. The year 2018 saw the launch of the Global Mangrove Alliance, as a partnership among Conservation International, The Nature Conservancy, World Wildlife Fund, Wetlands International and a growing consortium of international NGOs and research institutions, with a goal of expanding global mangrove habitats by 20 percent by 2030.

While ambitious, this is roughly the percentage of mangrove expansion already achieved along the Red Sea coast of Saudi Arabia. Duarte points to the mangroves along the shore of the campus of KAUST, which have been expanded by some 20 percent over the past decade. Additionally, because the Red Sea mangroves

TOP: DISTANT IMAGERY; BOTTOM: NATURE PICTURE LIBRARY / ALAMY; OPPOSITE: ARAMCO (2)

grow over a seabed of limestone, which holds even more carbon than other underwater floors, the mangroves here are especially efficient at capturing blue carbon, he explains.

"Drones are particularly effective in sensitive areas, areas that have micronuances of tidal elevations which need to be maintained such as in the UAE," says Glavan. "You can see the impact of having thousands of footprints churning and compacting the soil with traditional planting at scale, [and] drones allow for little human impact on the site."

This makes drones—Unmanned Aerial Vehicles, or UAVs—a growing tool in blue carbon initiatives. In addition to dropping seeds, they can survey vast tracts of land, gather and process data about it in real time and reach locations people find difficult or even destructive to reach.

Back on the Abu Dhabi shoreline, the buzz of the drone slowly returns, and it drops to the ground, its undercarriage empty. The team will return with it in the next planting season, probably in September and October. After contact with a suitable surface, mangroves tend to thrive naturally, explains Amna Khalifa Al Mansoori, a doctoral student working with the Environment Agency-Abu Dhabi. "Once you plant a mangrove sapling, you don't need to do much work, provided you've planted it in a suitable muddy area or an area where mangroves have successfully grown before."

While people have lived and worked among them for centuries, mangroves have never been more important. Starting with marine and plant science that leads to globally shared ideas—such as seed drops from 3-D-printed drones and the recognition of mangrove "carbon superpowers"—the value of mangroves only grows. With that grows their role in our planetary future.

**Beliz Tecirli, PhD,** advises on sustainability and environment, social, governance (ESG) performance for businesses, and she also specializes in sustainable urban cultural development. She writes about art, culture, lifestyle and environmental impact in the Arabian Peninsula and beyond.

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INGENUITY • INNOVATION • 5

# WHEN METALSMITHS FOUND THEIR GROOVE

*Written by* LEE LAWRENCE

**On a heavy incense burner made some 700 years ago, a laudatory inscription in Arabic encircles the name of the sultan. From a distance, the inlaid strokes of its naskhi script burst like golden sunrays. For a small pen case of about the same age, only a close-up view reveals a universe of intertwining inlaid designs where silver birds fly inside golden spheres. So opulent are such pieces that it is hard to believe the amount of precious metal in them is small. Mostly, they are made of a common metal alloy that, in the 12th century CE, metalsmiths in the Turco-Persian Seljuq world transformed into luxury ware. Today, it is as iconic of Islamic art as lavishly illustrated manuscripts or tilework tessellated with arabesques and geometry.**

Like all creative leaps, this luxury ware did not emerge out of the blue but occurred in relation to a specific context. In this case, "it was a combination of things," says Deniz Beyazit, curator in the Metropolitan Museum of Art's Department of Islamic Art. Co-curator of the Met's 2016 exhibition, "Court and Cosmos: The Great Age of the Seljuqs," and co-editor in 2020 of "The Seljuqs and their Successors: Art, Culture and History," she is well-placed to synthesize the past few decades of research that have brought this innovation into focus.

The story takes place in Khurasan, at the time an eastern province of the Seljuq empire whose Persian name means "Land of the Sun." Its rulers had been in power since the middle of the 11th century and, when it came to feastware, they favored gold and silver for their bowls, ewers and the like. These were made by artisanal metalworkers who decorated them with one or two inscriptions, medallions or bands of geometric or vegetal designs. This ornament was either incised into the surface or shaped in relief by hammering the metal from the reverse side, and large swathes of the precious ore were left plain and undecorated.

In the early 12th century, however, three developments alter the world in which these metalworkers operate. Major silver mines like those of Ilak some 1,000 kilometers northeast of Herat become depleted while copper from sources in Khurasan and neighboring areas remains plentiful. "So there is a change in the availability of materials," says Beyazit.

Two other things happen. "I don't know which came first and they might have developed simultaneously," she says. One is socio-economic: As external enemies and internal rebels destabilize and fragment the empire, the power of the nobility wanes while urban

centers witness a growing class of merchants and officials who also have an appetite for luxuries and the means to afford them.

The third phenomenon relates to fashion and taste: People increasingly favor densely decorated objects, figural imagery, lots of color, and what Beyazit calls "an iconography of the courtly cycle," which includes depictions of feasts, hunts, combat and other aspects of royal life. This new taste is reflected in the reliefs on the walls of palaces and other secular buildings, the designs on ceramics and lusterware, "and it probably also appeared in illustrated manuscripts," Beyazit speculates, adding that too few of these survived the Mongol invasion of Khurasan in 1220-21 CE to know for sure.

It is against this backdrop that Herat, now in western Afghanistan and then a thriving city in Khurasan and a center for metalwork, became known for a new kind of luxury ware that would flourish and evolve in parts of the Islamic world until about the 17th century. Later, in the 19th century, a variant from the eastern Mediterranean would become the object of a revival.

One of the most startling features of this luxury ware is that it was not made of a precious ore, but instead, of bronze and brass. As art historians Sheila Blair and Jonathan Bloom described them in 1997 in *Islamic Arts*, these were "cheaper copper-based alloys" until then used for ordinary, widely affordable wares. "Brass in particular," they write, "was the medieval equivalent of high-quality plastic today: It was relatively cheap, durable, strong and easy to shape."

Credit for it becoming fashionable in the early 12th century goes to the metalworkers—possibly to gold- and silversmiths—who found ways to satisfy the new tastes by painstakingly ornamenting objects with copper and silver inlays.

The most well-known example of this look is a celebrated water vessel known as the Bobrinski bucket, so named after the count whose art collection now resides at the Hermitage Museum in St. Petersburg. A signature specifies it was made in Herat in December 1163 CE. It is cast in bronze—an alloy predominantly of copper and tin—and bands of inlay encircle its round body. On those bands, horsemen wield spears and shoot arrows, people feast, dance, make music and play backgammon. Elsewhere silhouettes of ducks create an undulating pattern while a garland traces a rhythmic swag above scampering hares and antelopes.

But stealing the show is the inlaid calligraphy. In one band of inlay, faces appear at the top of vertical strokes and, in another, letters sprout heads, torsos and arms, all angled and posed to make them readable both as figures and text. Calligraphers were experimenting with new styles at the time, and this "animated script" was part of "a kind of general explosion of scripts," says Beyazit, "some very playful."

An even more elaborate example appears in the so-called Wade Cup, made between 1200 CE and 1222 CE. It is a stemmed drinking vessel that today is part of the collection at the Cleveland Museum of Art, and it carries the moniker of one of the museum's founders. It is made of brass, an alloy of mostly copper and zinc that became a popular choice for these works. Here the inlay depicts animals, humans and signs of the zodiac inside bands that crisscross and overlap like a ribbon wrapped around the body of the cup. Framing this extravaganza is a strip of human-headed script along the stem and, encircling the rim, a broad band of fully anthropomorphic letters. At first glance, it looks like a festive parade of people striking funny poses and wielding props. It took scholars a long time to figure out that the postures and gestures actually spell out wishes of good fortune to the cup's owner.

Such sophisticated inlay work began with a technique that laid silver wire into incisions in the metal. While this provided the metalworker with the equivalent of a pen or pencil, the new taste required the equivalent of a paintbrush. This meant the inlay process "had to be adjusted," says Beyazit.

"You can see the technique better with objects where the inlays did *not* survive," she adds, pulling up on her computer an image of a 12th-century inkwell at the Met. She points to areas where the

**OPPOSITE** The miniature silver and gold decorations on this brass pen box—some 5 centimeters wide and 28 centimeters in length—include inscriptions and a myriad of golden spheres with flying birds and other motifs, highlighting the artistry of its late 13th- to early 14th-century CE maker. **BELOW** The open grooves of this 12th-century bronze-cast vessel once held inlaid silver and copper. It was most likely an inkwell, and the Arabic inscriptions on the upper and lower bands offer praises and good wishes to its owner.

METROPOLITAN MUSEUM OF ART, ROGERS FUND, 1948; OPPOSITE: METROPOLITAN MUSEUM OF ART, GIFT OF J. PIERPONT MORGAN, 1917

inlays have fallen out: Zooming in, these channels appear small to be sure but deeper and wider than nearby engraved line decorations. Elsewhere in the piece, similar grooves are filled with thin silver or copper wire. They frame a rectangular band, surround a circular motif, follow the wavy strokes of naskhi script and, in simple depictions of animals, demarcate stick-like legs. But other inlaid shapes also decorate this inkwell: triangles and circles, bodies of horseback riders and bellies of animals. Faced with an ever-greater demand for decorative motifs and figures, metalsmiths needed more than wire—they needed silver and copper foil of varying shapes and sizes.

In *Précieuses Matières: les arts du métal dans le monde iranien médiéval*, Annabelle Collinet, curator in the Louvre Museum's Islamic department, and David Bourgarit, archeometallurgist and research engineer at the Centre de Recherche et de Restauration des Musées de France, reconstruct the process metalworkers in Khurasan developed to expand their repertoire of imagery and decoration. It begins with the artisan tracing contours of the inlay onto the object with a small punch tool that makes a dotted line. He then chisels and roughens up the area, undercutting along the edges. The scale of the work is minute, measured in micrometers.

So far, this sequence of steps is the same whether executed onto a vessel made of hammered sheet brass or on a wax model used to cast a piece. Next comes the application of a black paste. Its composition is still unclear, but part of its purpose is to help affix the inlay which the metalworker cuts to measure from a thin silver or copper sheet. He now inserts the piece inside the contours, hammers it in to mesh with the roughened surface, and then taps the small overhang created by the undercutting so that it clamps down the edge of the inlay.

"That technique," says Beyazit, "is new." Now that inlays of any shape could be snugly secured, the possibilities for inlaid designs exploded, allowing metalworkers to cover the entire surface of a basin, bowl, inkwell, ewer, candlestick, you name it, with imaginative calligraphy, vignettes of court life, playful depictions of animals and intricate patterns vegetal and geometric patterns. In the process, they introduced a colorful mix of silver-white, orange-red copper and black paste against the brass body's gold-yellow. The choice of metals would later vary, but interplay of color they created became one of the hallmarks of Islamic metalwork.

The technique began to spread widely and rapidly in the wake of the 1220 CE Mongol invasion, as many—some metalworkers

**TOP** This bronze vessel made in Herat, Khorasan, is embellished with silver and copper inlay work and most commonly known as the "Bobrinsky bucket" after a former owner, Count Alexei Alexandrovich Bobrinsky. An inscription on the handle dates the bucket to the month of Moharram in the year 559 AH or December 1163 CE, while the inscription running around the rim reveals that the vessel was created by two craftsmen, one of whom was probably the founder who cast it, the second the artist who did the inlays. **OPPOSITE TOP** Fit for a royal banquet, at 11.5 by 16 centimeters (4.5x6.3 inches), this drinking cup is most famous for its band of "animated script," in which humans in various poses form Arabic words offering praise and good fortune to its owner. Made between 1200-1222, it is referred to as the Wade Cup, after J. H. Wade who bequeathed the funds for its acquisition to the Cleveland Museum of Art. **OPPOSITE BOTTOM** The metal inlay on this mid-13th century canteen from Syria or northern Iraq depicts scenes including the birth of Jesus with Mary and features inscriptions written in Kufic and in naskhi scripts.

GETTY IMAGES / HERITAGE IMAGES. OPPOSITE TOP: CLEVELAND MUSEUM OF ART CHARLES LANG FREER ENDOWMENT; BOTTOM: SMITHSONIAN INSTITUTION'S FREER GALLERY OF ART

among them—fled Herat and other cities, taking with them their knowhow and artistry. Most went west: Workshops in Mosul, now in Iraq, began making inlaid brasses and bronzes, and so did counterparts in Syria and Anatolia. "Under the Mamluks, there is a Cairo-based market of inlaid metalwork for the court," says Beyazit, and Damascus too continued to flourish as an important center and became a hub for its export to Europe and across the Islamic world.

As various workshops adopted the inlay techniques from Khurasan, they adapted the decorations to local preferences. In the 13th century, for example, some metalworkers in Mosul incorporated Chinese-inspired designs, like the decorative patterns on a tray made for Badr al-Din Lu'lu', who began life as an enslaved Armenian and died as the ruler of Mosul. Others in the region included Christian iconography such as the scenes from the life of Christ depicted on an inlaid brass canteen held by the Smithsonian Institution's Freer Gallery of Art Museum. And a third metal color was introduced: gold. In the 14th century CE, its popularity grew across the vast Mamluk Sultanate while that of copper waned and figural depictions gave way to arabesques and inscriptions. In Khurasan itself, metalworkers also refined their techniques over time. Collinet and Bourgarit describe them originally setting the inlay flush with the body of the object, but in the 15th century, setting them in low relief, now accentuating the inlaid designs by having them catch the light just a tad more.


"From afar, it is something shiny," says Beyazit. "But people know the material. They know the value. So they get close to appreciate it in all its details." Though she may be referring to audiences in centuries past, Beyazit's use of the present tense equally describes our own encounters with the ways innovative artisans rendered ordinary alloys resplendent.

Based in Brooklyn, New York, **Lee Lawrence** (leeadairlawrence.com) writes frequently on Islamic and Asian art for *The Wall Street Journal* and cultural affairs for *The Christian Science Monitor.*

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# REVIEWS


"This is Egypt, as it has been for thousands of years. And nowhere are its natural beauty and manmade wonders captured better than in the private scribblings and sketches of travelers who first set out to explore it." —From *Egyptologists' Notebooks*

### Egyptologists' Notebooks: The Golden Age of Nile Exploration in Words, Pictures, Plans, and Letters

Chris Naunton. Getty Publications, 2020.

With this comprehensive work, Naunton, a British Egyptologist, has created a highly readable, vividly illustrated survey of the various explorers, artists, archeologists and others who documented their fascination with ancient Egypt over the centuries. Crucially, Naunton covers the biggest names in Egyptology while also detailing the contributions of those often left out of this historic narrative. Thus, there are deft examinations of both famed British Egyptologist William Flinders Petrie and Amelia Edwards, the British writer who founded the Egyptian Exploration Fund that helped finance Petrie's work. Naunton recounts the work of Howard Carter, the British Egyptologist who discovered King Tutankhamun's tomb, and explores the discoveries of Hassan Effendi Hosni, one of the first trained Egyptian Egyptologists. Working from diary entries, letters, sketches, hand-drawn maps, photographs (all reproduced here in their original form) and a plethora of archival materials, this book provides a fascinating, behind-the-scenes look at Egypt's archeological history. —DIANNA WRAY

**Without endorsing the views of authors, the editors encourage reading as a path to greater understanding.**


### Manhood Is Not Easy: Egyptian Masculinities through the Life of Musician Sayyid Henkish

Karin van Nieuwkerk. The American University in Cairo Press, 2019.

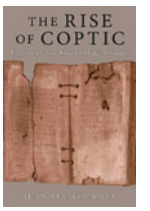
With a title taken from neighborhood graffiti, this "bio-ethnography" of *sha'bi* accordionist Sayyid Henkish illustrates the challenge of living out masculine norms on Muhammad Ali Street, a lower-middle-class enclave for Cairo's dancers, musicians and street performers throughout the 20th century. Henkish's life story uncovers the unwritten code of the *ibn al-balad*, men who see themselves as "sons of the country." Henkish embraces a performative view of manhood, only as real as it is visible to the community. Acts like protecting female dancers, paying musicians fairly and providing for family were all exemplified by his own father, a musician and his primary mentor. Even after seeing the world with a national performance troupe, Henkish remains anchored at home by a sense of responsibility and nostalgia. With gigs harder to come by as "the trade" sunsets, he busies himself managing the family's instrument shop.

—TREVOR WILLIAMS


### The Birds of Egypt and the Middle East

Richard Hoath. The American University in Cairo Press, 2021.

Covering 280 bird species in Egypt and the Middle East, Hoath, a fellow of the Zoological Society of London and a faculty member at The American University of Cairo, has created an indispensable and compact identification guide for the ardent birdwatcher and casual enthusiast. Entries feature color photographs for each bird with details regarding size, distribution, habits and habitat. Particularly enticing for birdwatchers, the region sits astride one of the great flyways of the globe, and hundreds of species—from raptors and cranes to wagtails and bee-eaters—make the twice-yearly migration, for which the guide provides advice on hotspots to witness one of nature's greatest spectacles. In his introduction, Hoath highlights the unusual benefit of being able to use the guidebook to identify not only the birds seen outdoors but also the ones that soar through the reeds and marshes of ancient Egyptian tomb paintings. —KYLE PAKKA




### The Rise of Coptic: Egyptian versus Greek in Late Antiquity

Jean-Luc Fournet. Princeton University Press, 2020.

The problem of multilingualism seen in modern societies once traditionally monolingual is not new. The book explores the situation in Egypt, where Coptic, the majority language, deriving from Late Egyptian, lost its own script and came to be written in an alphabet borrowed from the Greeks. From the Ptolemaic conquest in 305 BCE to the death of Cleopatra in 30 BCE, Greek dominated as the language of administration and law; thereafter Latin was encouraged, though not imposed. Only shortly before the Arab conquest in 641 CE did Coptic finally become the official language. Fournet, an eminent papyrologist, discusses the relationship between the official language and the vernaculars, and between official and private documents. The slowness of Coptic to achieve dominance is studied in the context of both religion and colonization. The Egyptian climate has allowed a wealth of material to survive. Fournet cites texts in Greek, Coptic, Syriac and Latin, with many excellent illustrations.

—CAROLINE STONE


**Treasured: How Tutankhamun Shaped a Century**

Christina Riggs.
PublicAffairs, 2022.

## Talking Tut: A Conversation With Author Christina Riggs

*by* DIANNA WRAY

Growing up in Ohio, Christina Riggs still remembers the moment when, sitting in her fourth-grade classroom in 1983, she learned about Tutankhamun, the young pharaoh entombed in the Valley of the Kings for more than 3,000 years, forgotten until British archeologist Howard Carter unearthed his tomb in 1922. Her fascination and determination to know everything about Tutankhamun's long-vanished world led her to Brown University, to Oxford and finally to his tomb in Egypt, a quest shaped as much by events in her own life as by the recurring Tut-mania that has gripped much of the world over the past century. In *Treasured*, Riggs, a professor of the history at Durham University in England, details and analyzes complex cultural and political forces behind the scenes, both in Egypt and around the world, that have shaped and determined the nature of King Tut's post-mortal second act. Here *AramcoWorld* talks with her about pulling together the real story behind the blue-and-white-striped death mask—and everything the blank-eyed golden face of Tutankhamun has come to represent, both to herself and to the world.

**You write in the book about how when you were a teenager your family home burned down shortly before your father died from injuries sustained in a car accident. How did confronting so much loss so young impact your work as an archeologist and your view of Tutankhamun?**
Archeology tends to be told as if it's about what we find. And yet, it's also about what we can't find and never will know. These family tragedies, the house burning down and losing my dad so young, ultimately gave me a very different perspective about these ancient tombs and the people inside. For me, I came to believe that who was lost should matter as much as what was lost, and the people we find, even though they've been gone for centuries, should still be treated with care and respect. That belief is a big part of what inspired me to write this book, because Tutankhamun has not always received that respect.

**What do you think it is about the idea of this boy king that has continually captured the public imagination?**
On its own, it was a unique discovery, this royal burial that was essentially intact and full of spectacular objects. Then, even after 10 years of excavation, not that much was known about him. There are so many questions that we will never be able to answer because he was a minor figure with a brief reign, and the evidence archeology can provide is so fragmentary. So, he's remained a bit of a blank. Because of this, every era, every generation, can look at Tutankhamun and see what they want to see, to project their fantasies on him.

**What inspired you to write this history of Tutankhamun in the modern world?**
I came to Tutankhamun kind of by accident and was surprised by how much there was still to say, not just about the 1920s excavation but also about everything that happened afterwards. Tutankhamun's presence for the past century isn't one story, as it has often been presented to the public. It is many stories with many players, particularly Egyptian ones, that haven't always been acknowledged. The book came out of wanting to present that whole picture of what has really gone on since Tutankhamun became this icon a century ago.

**Even though Howard Carter was the head of a large team of skilled Egyptian workers, most histories of the tomb's excavation focus primarily on Carter. Why do you think that is?**
It was all about reinforcing the colonial world order of the time. Contemporary Egyptians are in the photographs and records doing the work, but for a long time there wasn't a lot of interest in acknowledging that. Despite playing a big role in discovering the tomb, the Egyptians were usually left out of the narrative. They may appear in photos and work records, but we're lucky if we even get their full names. Instead, Carter was given the credit and eventually mythologized himself. In a similar way to Tutankhamun, Carter's image was used to reinforce the idea that archeology was a Western, masculine pursuit.

**Delving into Tutankhamun's long afterlife, your book never shies away from detailing a more complicated history than the one that has traditionally been relayed. Why do you feel avoiding oversimplification is important with this story?**
People are more open to being presented with evidence of complexity and then drawing their own conclusions. That's what I've tried to offer here, because the truth is turning people into heroes and villains and only in James Bond movies. It doesn't work when we're looking at the impact of Tutankhamun being found playing out against the complex phenomenon of colonialism followed by historic periods of decolonization. Simplification makes for an easier story, but reality is much more interesting, especially with Tutankhamun.

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# EVENTS

**Highlights from aramcoworld.com**

*Please verify a venue's schedule before visiting.*

## CURRENT / SEPTEMBER

***Woven Wonders: Indian Textiles from the Parpia Collection*** includes singular pieces that showcase the extraordinary aesthetic and technical diversity of Indian textiles. Ranging from folk textiles to sophisticated court textiles, the objects date from the 14th century to the early 20th century. The collection illustrates the preeminence of textile arts produced in India throughout history with examples of hand-painted and hand-block-printed cotton, embroidery, ikat, tie-dye, brocade, and tapestry. MFAH, **Houston**, through September 4.

## CURRENT / OCTOBER

***With Brush and Qalam Chinese Brush Calligraphy by Haji Noor Deen*** is a solo exhibition of the most important contemporary representative of Sini calligraphy in Berlin for the first time. Haji Noor Deen creates works that meld the techniques and styles from both the Arabic and Chinese lettering traditions, using a brush and qalam and also cloth-covered wooden spatulas he produces himself. Staatliche Museen zu **Berlin**, through October 22.

***Reverent Ornament: Art from the Islamic World*** features 45 timeless treasures from a region whose everyday life, history and culture offer many parallels to our own. The works, some centuries old, are comprised of fine glassware, ceramics, metalwork, painting, weaponry, weaving and more. International Arts & Artists, **Washington, D.C.**, through October 31.

## CURRENT / NOVEMBER

***Earthly Praxis*** brings together three bodies of work which probe the dominant paradigms of private property. This group exhibition proposes possible pathways towards a renewed understanding of our environment by looking at these mediations more closely and proposing alternative examples of contemporary land struggles as well as experimentations around traditional modes of agriculture. This exhibition is one of just five featured in the museum's May 26 grand reopening after the Beirut Port explosion three years ago, which forced a closure for reparations and rehabilitations. Sursock Museum, **Beirut**, through November 12.

***Art Installations by Emirati Artist Zeinab Al Hashemi*** portray the infinite beauty found in nature, showcasing the artist's profound encounters with palm trees, falaj irrigation systems and the mesmerizing patterns of fractal geometry. As a conceptual artist based in Dubai, she specialized in site-specific installations and has since become a leading figure in contemporary art and design in the region. Qasr Al Muwaiji and Al Ain Oasis, **Dubai**, through November 23.

## COMING / FEBRUARY

***Burma to Myanmar*** explores how the country's various peoples interacted with each other and the world around them, leading to new ideas and art forms. From the 14th century several kingdoms jostled for power and expanded important links with numerous countries and traders from the Middle East and Europe, creating a fertile ground for diverse cultures to flourish. The British Museum, **London**, November 2 through February 11.

Readers are welcome to submit event information for possible inclusion to proposals@aramcoamericas.com, subject line "Events."

## *A Century of Kanthas: Women's Quilts in Bengal, 1870s-1970s*

focuses on two textile types embroidered by women in the Bengal region (today Bangladesh and the state of West Bengal, India). The first is nakshi (ornamented) kanthas. Characterized by delicate stitches, faded tones, and intricate imagery, these quilts were made between about the 1870s and 1930s. The second is galicha (carpet) kanthas. Produced during the 1950s-60s, they display bold colors and intersecting geometric forms. Both types often served as family heirlooms. With more than 30 works, this is the first exhibition in a US museum to bring these two types of embroidery into conversation. **Philadelphia** Museum of Art, through January 1, 2024.

Galicha Kantha ('Carpet' Embroidered Quilt) with pinwheel pattern, Rajshahi Division, about 1960s.

COURTESY OF THE PHILADELPHIA MUSEUM OF ART, GIFT OF DR. DAVID R. NALIN AND DR. RICHARD NALIN

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***AramcoWorld* (ISSN 2376-1083) is published bimonthly by Aramco Americas, Two Allen Center, 1200 Smith Street, Houston TX 77002, USA.**
Copyright © 2022 by Aramco Americas. Volume 74, Number 5. Periodicals postage paid at Houston, Texas, and at additional mailing offices.
POSTMASTER: Send address changes to *AramcoWorld*, P.O. Box 292348, Kettering, Ohio 45429.

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