THE EGYPTIAN FAYOUMI

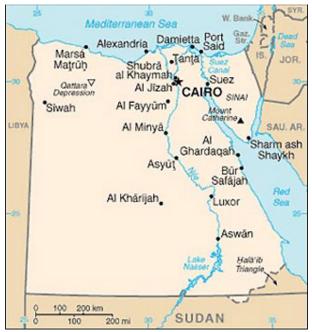


FROM THE PEARL OF THE INDIAN OCEAN TO THE ERYTHREAN SEA: FAYOUMIS EMERGE FROM THE ANCIENT EGYPTIAN LABYRINTH TO ARRIVE IN THE 21ST CENTURY.

BY CHRISTINE HEINRICHS AND KERMIT BLACKWOOD

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Chickens were domesticated more than 10,000 years ago. A few thousand years later, a rapid expansion of Indo-Aryan culture carried ancestors of the Egyptian Fayoumi fowl from India to the Near East. There, the birds were selectively bred for centuries to become the world's first egg production breed. These birds, with an infusion of blood of wild Sri Lanka Junglefowl, adapted to the Ancient Egyptian environment. Breeding as feral chickens in isolation for centuries, their unusual hybrid ancestry responded through natural selection to the harsh ecological realities of the Fayoum Basin's arid thorn forests. When Romans conquered Egypt 2,000 years ago, the refinement of the Fayoumi fowl as a purely domestic species began. The Fayoumi, known in Egypt as the Bigawi, is a unique living treasure.

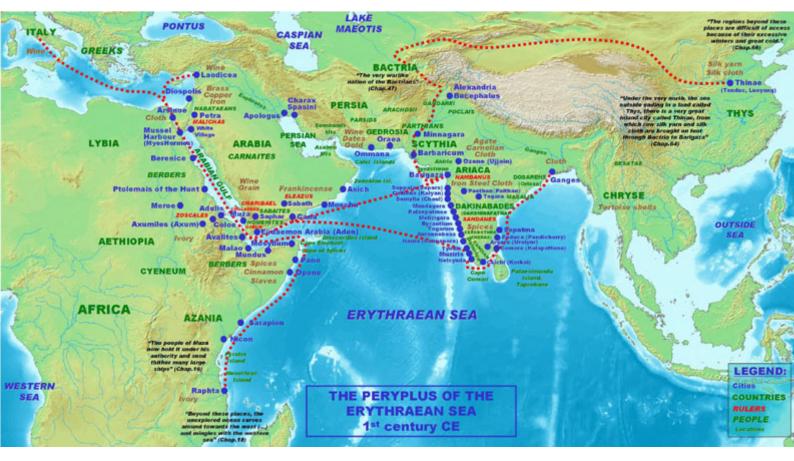


It emerged at the crossroads of the flourishing civilizations of South Asia, Africa and the Near East and reflects the cultural exchange between the ancient Super Powers. Its progenitors sailed on trade ships and were carried overland with armies and caravans. On its journey through history, it developed its distinctive identity in consecutive stages, from one significant point in history and location in geography to the next.

Left: Fayoum (AI Fayyum on this map) is central to Egypt and the Red Sea, which shares shores with Sudan, the Sinai and the Arabian Peninsula. Photo courtesy of U.S. State Department.

The Glittering Goods of Trade

Egypt's early tribal people, before pharaohs ruled, worshiped their ancestors, burying their dead in caves. Later, their descendants, the ancient Egyptians of 5,000 years ago, were even more obsessed with immortality than their predecessors. Religiously, their motivation for mummifying dead bodies and securing them in sealed tombs was to insure life in an Afterworld governed by justice and harmony. Many of the most important ingredients they needed for mummification, as well as for medical purposes and cosmetics, came from India, Sri Lanka and other parts of Asia. Egyptian traders sailed forth loaded with uniquely North African goods such as garlic, onions, millet and sesame, precious metals such as gold, copper and electrum, a naturally-occurring gold and silver alloy, and gems such as emeralds, amethyst and malachite to trade for the required incense, spices, essential oils and resins from Asia and East Africa. Everything worth anything eventually ended up in Egypt and it arrived through trade carried from every corner of the ancient world. Punt, on the Horn of Eastern Africa, had coffee, myrrh and frankincense; India had cumin, turmeric, black pepper and citrus. Sri Lanka had cinnamon, ginger and cardamom. Indonesia had cloves.



Above: The spice trade routes connected the super powers of the ancient world: Egypt, Punt on the Horn of Africa, India, Ceylon and Arabia. Used with permission: Wikipedia, User: PHGCOM

Trading ships came from India to the shores of Punt, in what is now northern Somalia, where trading partners made the deal and subsequently carried goods north to Egypt as well as to Yemen and Oman. The ancestors of the Bigawi fowl were part of the goods.

The first Indo-Aryan chickens that came with the earliest traders from the Indus Valley in northwestern India were valued as ceremonial birds, rather than for their economic value as food. Those birds developed from Burmese Red Junglefowl, *Gallus gallus*, with substantial Gray Junglefowl, *Gallus sonnerati*,

influence from northeast India. Each species of wild Junglefowl is adapted to its own respective environmental conditions, and passes unique traits on to its offspring. Today's genetic testing reveals the influence of male DNA in many ancient breeds. That scientific information helps fill the gaps in historical documentation.

Right: Isis, an Egyptian Fayoumi hen. Photo courtesy of Amy Barnes, Indiana.

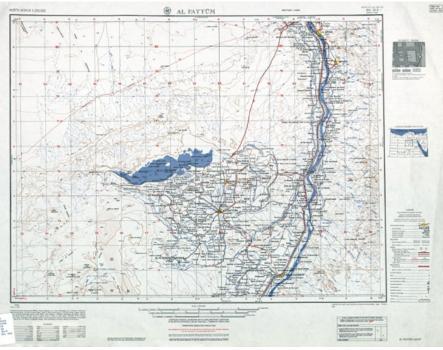
Progenitors of the Asil that came from India to Canaan, present day Israel, were Gray Junglefowl hybrids. The Canaanites bred it selectively into an egg-laying wonder. The Fayoumi is descended from this domesticated chicken and a third Junglefowl species, the Sri Lankan.

Religion, Politics and the Landscape

In 1990 BC, King Amenemhat came to power, founding the 12th Dynasty, 1991 BC-1802 BC. His regency is marked by a period of significant Egyptian territorial expansion south along the Nile River into what is now middle Sudan. Amenemhat's ethnic background, from a tribal backwater in the Red Sea hills, made him an unexpected ruler. He moved the



Egyptian capital city and government from southern Egypt to Middle Egypt. Amenemhat's new city-state "Amenemhat-itj-tawy" was located in a spectacular geologic basin known as the Fayoum Depression. He seized his generation's imagination and inspired an Egyptian renaissance that would continue for more than a century.



Middle Egypt is one of the most arid and harsh environments in the country. The Fayoum Depression is an average of 141 feet below sea level and a maximum depth of 210 feet below sea level.

Left: Lake Moeris still covers 78 square miles today. Filling a depression below sea level, its waters created a landscape to which feral chickens adapted, leading to today's Fayoumi.

By channeling water from the Nile River into the Fayoum Depression and reclaiming land from Lake Moeris, King Amenemhat created an

ecosystem that had not existed before. During the 12th Dynasty, the Fayoum was fairly verdant. Water lilies filled the shallows, where they were harvested as food

Local Livestock Breeds

Taking the geographic name Fayoumi is analogous with domesticated animals of other cultures: the Akita dog, Nubian goat; Watusi cattle, Miskito ("Muscovy") duck and Narraganset turkey. Ancient breeds are often named after the region and/or people at the epicenter of their origination. They develop as a result of periods of isolation and refinement, both in response to conditions geographic and through selective breeding maintained by the cultures that keep them.

Where Did They Get Their Name?

While we know this ancient breed as the Fayoumi, in Egypt and the rest of Africa, it is known as Bigawi. The populace that shared an ethnic origin with King Amenhemat, lived in the Fayoum basin when it was center the of Egyptian civilization. They came to be known as the Ta-Itjtawy, the People of Itjtawy. Thousands of years later during Greek times, the term began to be pronounced Ta-emDje plural =Baedja= Beja/ = Bejawi or Bigawi. The modern word used to describe the many collective tribes of this ancient people is Bejawi, a term that has lent itself to our Fayoumi Fowl.

The fowl were associated with the Bejawi both in the ports where the Beja people were influential trade leaders and on their remote agricultural settlements along the Nile. Until very recent times, it was the only chicken raised by Bejawi agriculturists wherever they lived. and medicine. One hundred and fifty thousand acres of arable land were dedicated to agriculture. The Fayoum basin is where coriander, artichokes, Egyptian garlic, Egyptian tree onion, leeks, radishes, lettuce, watermelon, tree roses and kamut wheat were developed. It is also the point of dispersal of a unique breed of sheep known as the Barki and the original source of the earliest domestic geese.

Compared with other city-states within Egypt, the Fayoum only had a moderate population. After the fall of the Middle Kingdom, 1802 BC, until the Late Period, around 700 BC, most of the population left the Fayoum. Thorn scrub forested wild lands bordering human settlements there proved to be ideal habitat for hybrid Junglefowl that would become naturalized in the region.

Chickens and Other Egyptian Poultry

Domesticated hens are first documented in Egypt in the mid-18th Dynasty prior to 1550 BC, some 3,600 years ago, from city-states in the neighboring Sinai Peninsula. Canaanite cultures had generated, maintained and refined an egg-producing breed unique to the Levant for more than 1,000 years. The Canaanite fowl was already a thoroughly domesticated breed, active and independent. They would have been living treasures to the Canaanites, used in ceremonial rituals and egg production. As in other early cultures that kept chickens, roosters were especially prized because of their announcement of dawn and the protection they afforded their hens and chicks. Hebrews were among the first cultures to leaven their dough with eggs. The Hebrews introduced eggleavened baking to the Romans. The chicken, the rooster and the egg are prominent in Hebrew religious scripture. The Levantine Canaanite hen was the primary maternal ancestor of the Fayoumi.

In 1479 BC, Queen Hatshepsut's younger brother and co-regent, Thutmose III, returned to Egypt from Palestine after the battle of Tel Megiddo. The cataclysmic siege of this ancient city-state by the Egyptians gave "Armageddon" its meaning, the Battle to End All Battles. Along with herds of livestock and prisoners of war, domesticated Canaanite hens were part of the booty. As was the custom of the day, the Egyptian army delivered their livestock and other seized treasure to the powerful Amen cult centered in Fayoum.

In 1450 B.C., a mural in the tomb of a powerful vizier, Rekhmara, was painted with an exquisite rooster's head bearing a leaf comb reminiscent of the Sicilian Buttercup. These birds were probably established in temple gardens of the Great Labyrinth of Amenemhatitj-tawy during this time.



Above: Fayoumi cockerel and pullets. Photo Tino Goossens (NL).

Egyptians had no need of more domestic fowl. They kept flocks of tame geese, cranes and ostriches and captured wild birds such as coturnix quail, migratory ducks and a now-extinct race of helmeted guinea fowl for food. Chickens may have been little more than exotic curiosities that survived because they were highly adaptable, self-sufficient and trusting of humankind. Fayoum farmers would also have noted how efficiently these foreign fowl controlled insect pests on their crops. While these wild chickens could not survive in the harsh Sahara Desert, small flocks apparently flourished in marshes alongside the Nile River and throughout arable regions within the Fayoum Basin's hundreds of square miles. Though they were certainly present in small localized populations, such as free ranging within high walled temple garden complexes in the ancient city of Fayoum itself, there is no evidence that the chicken was raised as domestic livestock until much later in Egyptian history. Artificial incubation and selective breeding of Egyptian chickens began in Egypt around 1,800 years ago.

The Egyptian priests of Amen kept these birds as exotic curiosities in sprawling sacred gardens and arboretums within the Great Labyrinth, a vast complex of religious buildings reported to have exceeded the pyramids in grandeur. By Roman times its stones were being quarried for other buildings and nothing is now left but records of its splendor. The ancient Egyptians must have been fond of the Canaanite fowl to allow them to free range in such an important monument of Egyptian culture.

Drought Stalks the Fayoum

Steadily encroaching desertification that had begun five centuries earlier continued to dry out the Fayoum basin. The water table dropped, leaving stagnant pools of water that allowed insect-borne diseases such as malaria, bilharzia and river blindness to add to the region's misery. Surface water became more saline. Even the religious temples would have had a rough time of it. By Thutmose III's time during the 18th Dynasty, Itjtawy, the name by which the area was known then, was already largely in ruin. Consequently, after Thutmose

III's death, many of the temples within Fayoum fell into further disrepair, as the center of Egyptian government, religion and politics had been returned to Karnak and the Delta.

While Thutmose III's grandchildren brought in Egypt's Golden Age in southern Egypt, the Canaanite chickens were left to fend for themselves within the ruins of Itjtawy. But they were not completely alone. Religious orders still maintained temples in the basin. Permanent settlements of the religious caste responsible for giving tribute to the Nile River remained around the banks of Lake Moeris. Adjacent to the Nile, its low elevation allowed it to remain moist enough to support verdant oases. As anyone who has visited an oasis can attest, there is no better place for the proliferation of flies, which may have become one of the birds' primary sources of year-round nutrition.

Hundreds of generations of chickens would have hatched among this very limited founder population of Canaanite hens, probably never more than a few thousand. About 70 years after the Battle of Tel Megiddo, scores of dazzling male Sri Lanka Junglefowl arrived along with a major tribute of cinnamon sent by the monarchy of Sri Lanka during the reign of King Amenhotep III, Thutmose's great-grandson and King Tutankhamen's grandfather. King Amenhotep suffered from many ailments in his later years and tribute from allied kingdoms was a means of diplomacy as well as metaphysical healing. In Ancient Egypt, failure of the river to rise was seen as a failure of the God-Kings themselves. The Sri Lanka Junglefowls' arrival was a blessing, because their multi-syllabic crow sounded to the Egyptians like the mantra river priests chanted, pleading for the river rise:



Haaypi Haaypi! *Herhut!* Heget! *Herhut! Heget!* Hail to thee, O Nile! Who manifests thyself over this land, and comes to give life to Egypt! Herhut! Heget! Herhut! Heget! Come and prosper! Come and prosper! Herhut! Heget! Herhut! Heget! O Nile, come and prosper!

O you who make human beings to live through His flocks and His flocks through His orchards!

Herhut! Heqet! Herhut! Heqet! Come and prosper, come, O Nile, come and prosper! Haaypi! Haaypi Hotep! Haaypi Hotep!

Even this tribute failed to restore the Fayoum Basin's water table. As the desert steadily encroached, most of the people left Fayoum. The hardy fowl held on, meeting ecological challenges by adaptation. Eventually, feral populations flourished in the marshes among the reeds. They foraged in the thorn forest and took shelter in the dense palm forests surrounding evaporating lake beds. For the next thousand years, this population bred on its own in isolation from other influences.

The Sri Lanka Junglefowl roosters added integral genetic diversity to what must have been a rather inbred population. The result was a uniquely skewed founder base. The addition of so many roosters would have unbalanced the equilibrium between the sexes for a few generations. Survivability and capacity to fight were probably significant for the first few years but ultimately the flock would have found its balance again. Male Sri Lanka Junglefowl defend their nests and enjoy extended relationships with offspring. Females often have up to three suitor/providers, who hold guard over the nest site and take over the chores of nurturing eight- to twelve-week old chicks while she hatches another clutch. Under this social organization, called facultative polyandry or serial monogamy, hens can raise three to five clutches a year. They are documented nesting during most months of the year. This capacity to produce clutches year-round has been observed in captivity in bantam chickens, many old breeds of which are also derived of Sri Lanka Junglefowl sires in their deepest antiquity.

Right: Fayoumi rooster. Photo: Tino Goossens (NL)

Males of this unique hybrid race of Fayoum Junglefowl may have responded by forming cooperative guilds rather than competing aggressively. It could also lead to the marked precocity, early sexual maturity, of Fayoumis. Fayoumi roosters start to crow as early as five weeks old and pullets begin to lay at around 4-1/2 months. Today, when



Fayoumi flocks have a surplus of roosters, two or more per hen, the entire group gets along amicably. Of course teenage roosters don't learn to cooperate until later in their life.

Nature Reclaims the Fayoum

The Fayoum remained basically deserted, save for a few temples and fishing villages for thousands of years after the death of King Tutankhamen. Farmers continued to cultivate the area, but Fayoum's population was a fraction of what it was during its ascendance. The Fayoumi chickens naturalized in their environment. They were as isolated as they would have been if they were marooned on an island. They took their Junglefowl heritage and returned to the wild.

Sri Lanka Junglefowl prefer semi-arid coastal mountain habitat to wet rain forest. That adaptation served the feral Fayoumi breed well, helping them succeed at foraging for insects and other invertebrates in the marshes along the lake and river while avoiding native predators. It may be that the considerable influence of Sri Lanka Junglefowl in the genetic pedigree of the Egyptian Fayoumi is what rescued its ancient progenitors from extinction.

Their saving grace may have been their ability to capture insects in mid-air and to nest among the crowns of old palm trees. One still sees them in the more remote reaches of the Fayoum wading along canals and irrigation ditches, apparently living almost entirely on flies.

Fayuomis Find Ways to Survive

The Fayoumi had a long walk along the road of survival before it came into its own. Predation must have been a defining factor in its endurance. Every movement of these noisy foreign intruders was watched by native predators. Birds, both adults and chicks, whose plumage camouflaged them in the Fayoumi landscape, a background of bright white sand and burned grey shore, ochre and red hillock, would have had a survival advantage as they made their way across the ever-growing banks of lakes and canals. They would have needed camouflage especially at night, when the moon shines so bright as to make the light-reflective desert as clear as day. Survive they did, through a thousand

Predators of the Fayoum

The feral Canaanite hens and their Sri Lankan rooster suitors would have needed considerable wit as well as masterful camouflage to protect themselves against a host of formidable predators. The Pharaoh's Eagle Owl hunted the birds by night as they roosted in thorn palm forest. Night brought out packs of Ichneumon or Pharaoh's Mouse, the Egyptian mongoose, prowling for waterfowl nests. Although its main prey is the eggs and young of crocodiles, birds are a natural prey of this mainly carnivorous omnivore.

This fowl's wild ancestors survived by avoiding these nest predators that were relatives of the ichneumon. The Junglefowl's natural predators include several species of mongoose and civet as well as giant predatory monitor lizard closely related to those of the Nile.

To quench their thirst in the soaring heat of the Egyptian desert, the Fayoumi fowl were obliged to leave the shady security of their dense palm forests to eat and drink along the wet verdant fingers of old Lake Moeris and other sources of fresh water. Beneath thickets of buffalo thorn, carob, tamarind and acacia stands, they would forage for the nutritious seeds and fruit of these leguminous trees. Crossing wide-open spaces in daylight left them vulnerable to the Egyptian Hawk, the Sokar Falcon and a host of other birds of prey specially adapted to hunt for birds along the Nile Valley. Grassland tussocks surrounding the Fayoumi fowl's beloved marshes camouflage the Egyptian Lynx, which can jump many yards into the air to capture as many as three pigeons in a single assault. Another constant menace, the Golden Jackal, is known to snatch prey from the mouths of lions and like its cousin the fox is an adept predator of fowl. The wild Reed Cat is a serious predator of Fayoumi fowl, preying on young birds.

Unlike most breeds of chickens, the Fayoumi is largely a product of natural selection. Its chicks are patterned like those of the plover, perfectly camouflaged amongst the rocks and sand. And like their cousins the Francolins, the Fayoumi chicks are markedly precocious. They look after themselves and mature in months.

years, until the Greco-Roman period, when Herodotus visited Egypt and noted in passing that wild fowl lived in the marshes. By that time, they were completely feral and served no practical purpose to humankind. Greek and Roman invaders brought with them their own domestic chickens, recent descendants of the Canaanite hens so deep in the Fayoumi's ancestry. These tame domestic birds came to live among newly bustling settlements along the banks of the lakes of Fayoum as the Greeks once again transformed the basin into a lush region of vast natural resource wealth.

This may well have invited the attentions of a few wild fowl, which came to frequent towns and villages, interbreeding freely as Junglefowl cockerels do with their domestic cousins. The modern day Fayoumi chicken available from hatcheries is a descendant of this ancient composite. It has been refined by successive generations of poultry scientists in modern day Egypt, Turkey and Italy.



Above: Fayoumis today retain a unique crow. Although they aren't able to influence water tables, scientists are investigating

whether they have natural immunities to diseases. Photo courtesy of Cyndy Carroll, Syrinx Farm, Georgia.

Fayoumis Today

Fayoumis are not recognized for exhibition by American poultry associations. They are small birds, roosters weighing around 4.5 pounds and hens around 3.5 pounds. Their plumage is similar to Campines and Friesans, which are both descendants of the original Fayoumi. Fayoumis usually exhibit silver-white heads on black and white barred bodies. A golden russet variation is common in southern Egypt. They have fairly diminutive single combs, dark facial skin and lay smallish off-white eggs with a grey or lavender tint. They are reputed to have some natural resistance to diseases such as Avian Influenza, West Nile, Malaria and Choryza.

Modern Egyptian Fayoumi chickens separate into five breeds worth describing:

The **Bigawi** is differentiated from the modern hatchery Fayoumi by size, color and temperament. The Bigawi is a bit smaller and battier than the Fayoumi. Females are a rich chestnut brown or dark sepia with bold black transverse barring or faint marks obscured by the dark plumage. Male Bigawi are difficult to discern from Modern Fayoumi, though they tend to be darker in the wings with darker, longer, and larger tails. Both Bigawi and Modern Fayoumi should have dark facial skin and an unusual crow

Fayoumi Facts

Size: Standard Cock: 4.5 lb. (2 kg), Hen: 3.5 lb. (1.6 kg) Comb, Wattles & Earlobes: Moderately large single comb with six upright points; medium-size wattles and earlobes. All are bright red, though earlobes have a white spot.

Color: Dark horn to slate blue beak; dark brown eyes; slate shanks and toes. Male: head, neck, back, and saddle silvery white. Breast, body, and legs barred in black and silvery white. Tail and wings black with white highlights. Female: Head and neck silvery white. Rest of plumage barred in black and silvery white. Place of Origin: Egypt Conservation Status: Study Special Qualities: Good disease resistance and egg production. From: Storey's Illustrated Guide to Poultry Breeds by Carol Ekarius, courtesy of

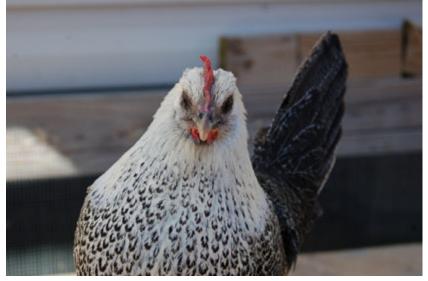
Storey Publishing.

that is easily distinguishable from any other breed of rooster. In Kassala and Port Sudan in Eastern Sudan, Bigawi fowl have pewter plumage, which camouflages them against the dark soil there. Their leaf combs are very like those of the Sicilian Buttercup, another breed with North African roots. Many Bigawi roosters will be nearly white with the grey barring appearing only on the breast or undertail. They are a landrace and as such remain diverse.

The **Shakshuk Fayoumi** is the common strain of unimproved Fayoumi that one sees in villages throughout the Fayoum and in the cemetery of Old Cairo. They are brightly colored with vivid yellow legs and ginger-hued feathers.

The **Dandarawi** is a recent dual purpose utility composite created in an agricultural university in Assiut. It was bred by crossing Fayoumis with old African breeds like the Malagasy and European breeds such as the Braekel.

The **Rekhmara** and **Baraka** sub-breeds are winter-hardy versions of the old Egyptian that closely resemble the earliest representations of domestic fowl from Egypt's 18th Dynasty.



Fayoumis aren't recognized for exhibition but they are available from several hatcheries. Their unusual disease resistance and exceptional hardiness recommend them, but their wild nature can make them challenging а backyard bird. Plan to aentle them with handling from the start.

Left: This Fayoumi hen shows the plumage

that camouflaged her forebears and enabled them to survive fierce predators in the desert landscape. to courtesy of Cyndy Carroll, Syrinx Farm, Georgia.

City of the Dead and Mokkatum

In Mokkatum, high in the hills above Cairo, live the Zabbaleen, a minority religious community of Coptic Christians who have served as Cairo's informal garbage collectors for the past 70 to 80 years. A Bigawi Shashuk, Modern Fayoumi and Dandarawi composite known as the Mokkatum fowl scavenges with them in the mountains of refuse. This is an important livestock species to the Zabbaleen, as eggs are a significant part of their daily nutrition.

In the City of the Dead, a four-mile cemetery running the length of Cairo, people make their homes with their ancestors. Established during the first Arab conquest of 642 AD, the cemetery is the site for monuments and shrines to the dead. The poor, fleeing rural poverty, settle there. They share it with flocks of local Mokkatum fowl.

They are unique in appearance, and the locals respect them. They may take eggs that they find, but otherwise leave the birds unmolested. One hopes that Cairene backyard poultry lovers will conserve a few flocks before the chickens are mongrelized with the commercial utility breeds that have become common in Cairo, so that we may continue to follow these birds into the future.



Above: This modern Fayoumi's Canaanite fowl ancestors were allowed free range in the Great Labyrinth, a complex of religious buildings that Roman historian Herodotus described as "a wonder to me." Other modern breeds descended from the Canaanite hens include Lakenvelders and, by extension, other Mediterranean breeds such as the Leghorn and Minorca. Photo courtesy of Cyndy Carroll, Syrinx Farm, Georgia.

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