

# A remarkable fowl

Why did the chicken leave the jungle? The story of the jungle fowl's journey from forest to farm can tell us much about our past, says **ROB DUNN**.

**NOT FAR FROM** my home in North Carolina is the world's densest population of chickens. They live in small cages, as close to each other as any animal ever is to any other animal.

If the fowl rose up, they would be an army, but they do not rise up. They are numbed to their circumstances – wings clipped, overfed and yet undernourished. Like some strange island bird, they no longer fly. They just pace the land they have been given, a place of steel-grated floors and constantly lit skies.

Few of us ever see these chickens, but we can see the evidence: the enormous breasts and legs lined up neatly in shops and supermarkets. Where I live, we also see other things. Recently, I was driving with my family and came across what looked like litter. It was feather down – hundreds of thousands of white feather fragments, all of which had blown off the chickens being transported from a farm to their demise. Once, it was otherwise.

## **JUNGLE ANCESTORS**

Once, there were no chickens. Instead, there were just their wild ancestors – jungle fowl. The untamed descendants of these birds still live in the bamboo forests

of what are now India and South-East Asia. They run across the forest floor like miniature Velociraptors, kicking aside the fallen leaves with their strong legs and pecking at whatever they find with their powerful curved beaks.

Jungle fowl roost up in the trees, heads under their wings, and, if disturbed, protest noisily. Their main enemies are tigers, pythons and hunters; rumour has it they taste like chicken. And yet, unlike many other tasty gamebirds and ground-dwelling cranes and rails, they survived and have roamed these forests for millions of years. They have made it by dint of a surprising intelligence, their fecundity and – like any of us – luck.

At some point, at least 8,000 years ago, people began to bring chickens into their villages. Why is unclear, though it is unlikely to have been for food: evidence suggests that wild fowl were gathered initially either for cockfighting or to help predict the future, as oracles.

The idea that chickens – if poked, prodded or pulled apart in just the right way – predict the future is as old as the evidence of the first domestic chickens. If divining was not the very first use of chickens, it followed closely behind. ▶



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The wild ancestors of chickens share their native forests with tigers and other exotic wildlife. This handsome red jungle fowl is scratching around for food in a pile of Indian rhino dung.

THE EXPERT



**ROB DUNN** is a science writer and biologist. One of his earliest memories is being chased by a rooster in his parents' backyard.

Nearly everywhere chickens were taken, they continued to prognosticate. Among the Karen people of Burma, chicken bones are examined for holes and divots. Big hole, good news. Small hole, bad. Or is it vice versa? So much depends on a chicken bone. Among the Ho people of Chota Nagpur in India, chickens are used only for divining and never as food. To eat chicken in Chota Nagpur is taboo – and the same applies for the Vedda of Sri Lanka, the Sabimba of Malaysia and several different peoples in the Solomon Islands.

Nor are divining chickens restricted to Asia. The phenomenon is common across much of Africa and has reached the New World, too (my own future was once predicted by chicken bones in Bolivia, but it is too soon to say whether it will come true). In general, many cultures seem to agree with Cambodia's Khmer people, who

**“Chickens chart not just our desires, but also our paths. They can tell us things about our own history.”**

contend that the greatest value of chickens is as fortune-tellers, their second is as fighting cocks and their most incidental function is as food. It is clear that these birds still have something to say about us.

**WILD AT HEART**

Our knowledge of wild jungle fowl appears to tell us a great deal about scientists – namely, that they like to think about chicken sex. We know very little about what jungle fowl eat, what eats them or the size of their populations, but we have learned a lot about their breeding systems.

In the past five years alone, researchers have announced that female jungle fowl prefer males that call louder when they are afraid, that they favour males with larger combs (but not necessarily larger wattles), and that they express this preference by expelling the sperm of less-than-ideal partners. Males, on the other hand, like to mate with females they know well.

These wild attributes (sexual predilections included) have remained with the birds' domesticated descendants. All chickens remain afraid of even the shadows of hawks, are choosy about their mates and organise themselves according to a strict pecking order. Males are aggressive to one another. Chickens also still call out, the males crowing to announce themselves or danger and the females clucking to announce... well, no one is quite sure what (the clucks

This impressive menagerie, engraved in 1896, celebrates the phenomenal ability of chicken breeders to produce new fancy fowl.



Interfoto/Alamy

have been described as 'contentment notes', but that is just a theory). Chickens are smart, too, in their own way. For example, they can recognise up to 100 different chicken 'faces' – a necessity for knowing who is top hen.

Different attributes have been favoured in different places. In some areas, big birds were bred for eating; in others, prolific layers were most in demand. But more than anything, people have selected aggressive traits to produce cocks that will kick each other to death, all the while thinking they are impressing an unseen mate.

**FIGHTS TO THE DEATH**

Cockfighting was once practised everywhere chickens were farmed. If ornithologists like studying chicken sex, humans more generally seem to have long liked cockfights.

Again, this seems to say more about us than them, though. Many modern varieties of chickens owe their particulars to domestication for fighting. These breeds fly weakly but have long necks, small wings and strong muscles, all perfect for their intended purpose.

Whatever you think about cockfighting today, the blood sport seems to have once satisfied a near-universal desire. Perhaps this was the same one now sated by bad cop shows: a desire for conflict with simple and inevitable resolution.

Chickens chart not just our desires, but also our paths. Over time, they spread from their southern Asian homeland with their human masters and reached every corner of the world, so they can tell us things about our own history. One of the most contentious debates in the story of



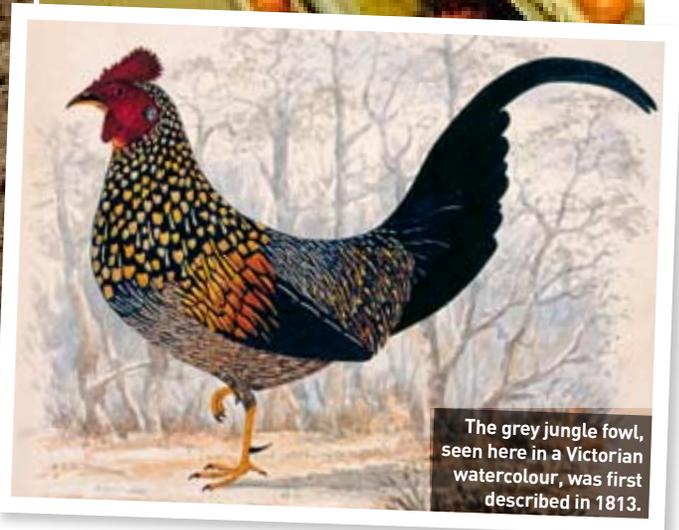




Domestic chickens turn any patch of loose earth into a dust bath, just as their wild ancestors do.



Fair or foul? Life in a cramped battery cage is a far cry from one spent roaming India's forests.



The grey jungle fowl, seen here in a Victorian watercolour, was first described in 1813.

## WATCHING CHICKENS

Domestic chicken behaviour offers an insight into the birds' wild past.

Often dismissed as 'farmyard animals', chickens are fascinating birds well worth watching in their own right. Some of their habits are striking enough to have made it into our lexicon. For example, they peck instinctively, selecting some foods and not others – hence 'hen-pecked'. And flock members jostle each other to establish dominance hierarchies or 'pecking orders' among the male and female birds.

There is also much more to chicken vocalisation than you might imagine. Several dozen calls have been identified so far. We understand some of them – mating and warning calls, crowing as a display of male power, and food calls that trigger a pecking impulse (whether food is there or not). But most chicken-speak has yet to be decoded.

One interesting study on chickens found that they prefer 'good-looking' humans – they apparently respond to the same visual clues we do. They are not able to identify vegetarian humans, but give it time...



This Sebright cockerel is the product of the Victorian desire for fancy breeds.

human migration used to be whether Pacific Islanders reached the New World before Europeans. It has been settled once and for all by the bones of Pacific Island chickens discovered at a Chilean archaeological site that predates the arrival of the Spanish adventurers.

Eventually, chickens came to be favoured for their beauty. In Japan, a variety was bred with a 2.75m tail; another breed had a 90-second call. It was in Victorian Britain, though, that the greatest diversity in chicken forms arose. So it was that birds with colourful names such as Redcap, Silkie, Sebright and Old English Game came into being.

### MORE FOR LESS

The biggest change in the chicken's story, the one that would lead to my feather-coated road in the USA, was the Industrial

Revolution. It saw a shift in our values, replacing the whimsy of culture with the mantra of 'more for less'. First chickens were moved indoors to barns. Then they

were given constant light and force-fed. Finally, they were bred for particular genes and a fecundity so great that there are now many more chickens than humans.

Today's factory fowl are twice the size of their jungle ancestors and produce almost 80 times as many eggs a year. Yet despite this, they remain wild – scared of hawks and strange shadows, prone to fight and fussy about their mates (but few have a choice).

Nor is the story complete. Chicken breeders continue to create new forms and we remain tied to their fate. The poultry science building at North Carolina State University, which I can see from the biology department where I work, has a giant model Earth in its foyer. The planet is cracking and a giant chick is hatching out. Above it are the words "Chickens are our future."

Chickens are our past, too – a reflection of ourselves. Like all mirrors, the insight they offer is more accurate than we might like, so it is not always flattering. Meanwhile, there is still a place in India where jungle fowl roam, and tiger and buffalo play. These wild fowl remind us where chickens come from, and where we come from, too. 🐔