

The Year of the Rooster ‘Chicken Trail’

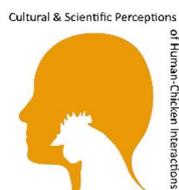
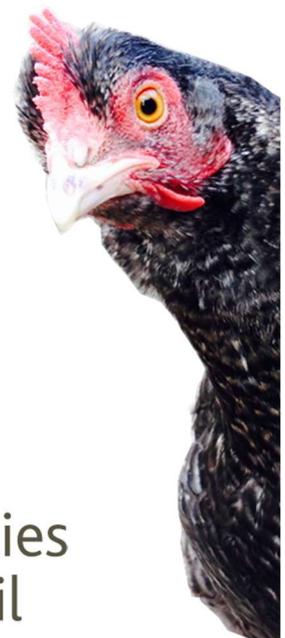


What do you know about chickens? You know nothing about chickens! And three years ago, neither did we. We didn't know where they were domesticated or why, how they spread around the world or with what consequences for human culture, diet, health or well-being. But following 3 years of AHRC-funded research, that allowed us to bring together 20 researchers from a variety of different universities, backgrounds and disciplines, we now have some answers. And we want to share these findings with you.

Throughout the Year of the Rooster we will be taking you on the Chicken Trail. We're going to show how the story of chickens is the story of people, charting the spread of global cultures, the rise and fall of ideologies and empires, as well human impact on the planet. We will present tales that intrigue, some that terrify but others that inspire hope – as it is becoming clear that chickens may be the key to helping some of the most vulnerable people in our modern-day communities and cultures.

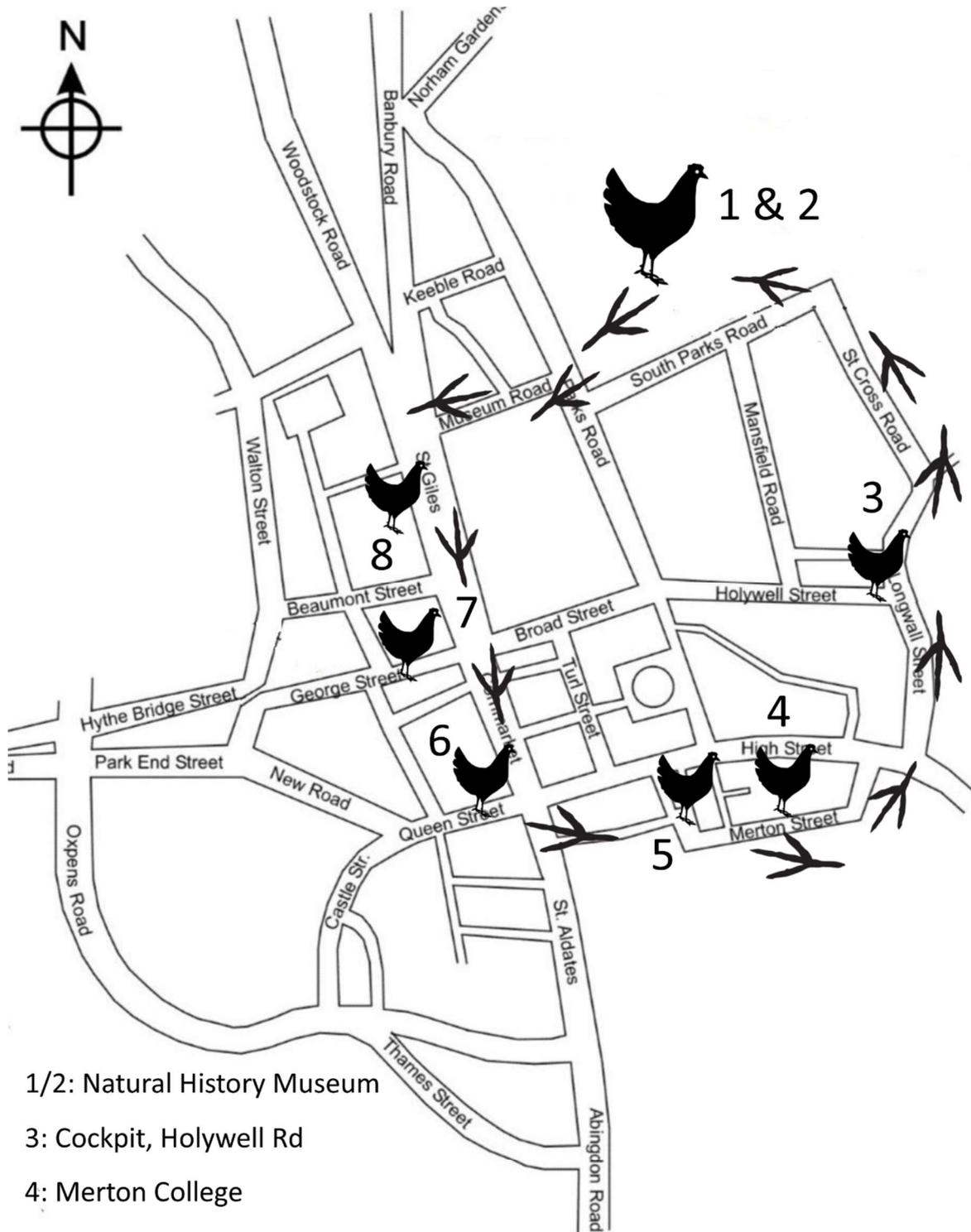
Follow us on Twitter [@Chicken_Project](https://twitter.com/Chicken_Project) for weekly research reports that will explore everything from dinosaurs to...dinner!

But, as a one-off Oxford special, we've created a city-trail that presents a few of our research highlights. And it starts in this very museum...



Arts & Humanities
Research Council

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1/2: Natural History Museum

3: Cockpit, Holywell Rd

4: Merton College

5: 113-119 High Street

6: 'Carfax Tower', Queen Street

7: The old 'Cock and Camel', George Street

8: Chickens of the Ashmolean



Dinnersaurus rex!

The *Tyrannosaurus rex*: the first dinosaur whose name you remembered and the star of Jurassic Park. It lived for 2 million years at the end of the Cretaceous period. It was big, fierce, and went extinct along with the rest of the dinosaurs 65 million years ago, when a giant fireball collided with Earth near the Yucatan Peninsula. Except, maybe they didn't go extinct...

Recent research has shown that many dinosaurs had feathers. Most likely these were used for maintaining body temperature and for wooing a mate. Those feathers then became useful for flying. So not all dinosaurs went extinct, some evolved into birds. Including chickens – the world's first domestic dinosaur!

The wild ancestor of the chicken (the Junglefowl – there's one on display in the museum, see if you can find it) is a relatively small, scrawny bird. Junglefowl weight about 1kg – there's not much meat on them! But people love to eat chicken so, through selective breeding, humans have created birds that are, today, over twice the weight of Junglefowl. And they grow fast, achieving full carcass weight in just 35 days!

If bigger is better, it won't take too many more decades before we're growing chickens the size of a T-rex. Be afraid – we may be entering the Age of the Dinnersaurs!

Dinnersaurus rex was made by pupils from the City of London Academy, under the direction of artist Ben Frimet. It is a memorial to the chicken's descent – both from its dinosaur origins and in terms of its fall into mass exploitation.



Old Yeller Legs (Find the Grey Junglefowl in the Museum)

This is a grey junglefowl. There are three other closely related species of junglefowl including the red, the green, and the Ceylon. Domestic chickens are almost exclusively descended from the red junglefowl, but not entirely. They can't be: chicken legs are just too yellow!

Think about popular images of chickens. Foghorn Leghorn. Chicken Little. All other fast food depictions and cartoon chickens. They always have yellow legs. But the red junglefowl has grey legs. So how is it that domestic chickens more often than not have yellow legs?

Take a look at the grey junglefowl's legs. OK, it's an old taxidermy specimen, it's seen better days but the legs - do they look a little bit yellow? A recent genetic study has shown that modern chickens possess a special yellow-leg gene that came from the species you are looking at, the grey junglefowl. How did this happen?

Chickens were domesticated in East Asia, where the red junglefowl lives. When they migrated with people though South Asia, they likely encountered populations of *Gallus sonnerati*, and some of the offspring between domestic and wild birds possessed some grey junglefowl traits.

Just like many of us have a little bit of Neanderthal in our genes, domestic chickens have just enough grey junglefowl in them to produce those iconic yellow legs.



Betting on Chickens at the Holywell Cockpit

What are you doing this weekend? Care for some blood sport? If you were alive in the 17th, 18th, or even early 19th century and feeling in need of entertainment, you might have made your way here, to the corner of Holywell Street and St Cross Road to join your team, the Gentlemen of Oxfordshire, to compete against the Gentlemen from other (no doubt inferior) counties.

An archaeological excavation here in 1992-3 uncovered the remains of a circular cockpit that had been in existence since at least 1675. Cockfighting was popular throughout England and even the Globe Theatre in London hosted fights in between performances of Shakespeare's plays. This pit was the venue for hundreds of high-profile cock fights, many of which took place as part of events held across the city. For several years at the turn of the 19th century, for example, *Jackson's Oxford Journal* advertised the fights. For an event like this, the two teams were each allowed a specific number of cocks and a price was set for each battle.

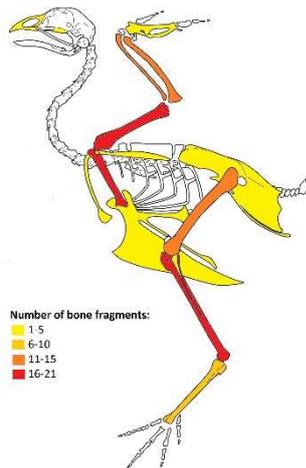
After the fights, you could join your friends in celebration or commiseration at the local pub called, not coincidentally, the Cockpit, which was situated near Holywell Church. The advertisements for the cockfights ceased in 1815, and the sport was banned in England and Wales under the Cruelty to Animals Act of 1835. The pub soldiered on as an Inn and drinking house until 1856 before, like the cockpit itself, it finally closed for good.





Chickens getting under your feet

A lot of the evidence for ancient chickens comes from archaeological excavations, of which there have been hundreds in Oxford. Merton College, for instance, was excavated in 2002 by Oxford Archaeology and a large quantity of animal bone was recovered. The majority of the bone was retrieved from a collection of 14th/15th-century pits that were used for the disposal of food refuse from the college. The bulk of the remains come from cattle, sheep and pig, but chickens were also



present in high numbers. They were represented largely by thigh and wing bones (see skeleton image) suggesting that the college students were feasting on chicken drumsticks and wings. The presence of swan and heron, both of which were considered high-status foods in the medieval period, also lends support to the conclusion that feasting took place at the college.

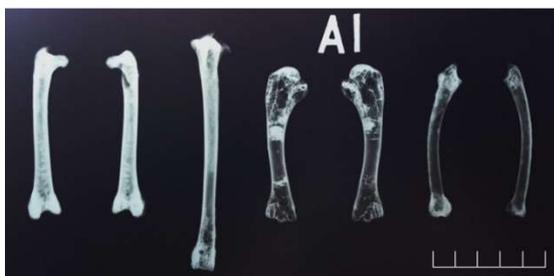
In contrast, the animal material recovered from excavations just down the road, on 113-119 High Street revealed a more common 13th/14th-century occupation. Numerous animal bones were recovered from waste disposal pits there as well, but there were no swans!

Here's an extract from the excavation report, written by Prof. Mark Maltby, University of Bournemouth:

Bird

122 bird bones were identified from unsieved contexts. These included 16 bones from an adult hen in a 13th- to 14th-century pit. Domestic fowl also provided 49% of the remaining avian bones. The lack of medullary bone in broken limb bones suggested most of the birds were not hens in lay. Metrical data suggested that the birds were of a small size typical of medieval sites. Geese, probably all domestic, accounted for 25% of the bird bones. Knife cuts were occasionally observed on both fowl and goose bones. Bones of other species were found only occasionally. These included probable domestic ducks, teal, woodcock and raven. Further sieving would probably have increased the proportion of bird bones in the assemblage.

You can see that Prof. Maltby refers to 'medullary bone'. What is that? I hear you ask. Medullary bone is a calcium deposit that is laid down inside a female birds' hollow bones. It's essentially a mineral reserve that they can draw upon for egg-laying (the calcium for egg shells has to come from somewhere!). Because we have bred chickens that can lay huge numbers of eggs a year, medullary bone is more common in these domestic birds than in wild ones. Here is an x-ray of chicken bones – the ones on the left are filled completely with medullary bone (this hen was about to lay a lot of eggs!), whereas the ones on the right have very little or nothing in them.



Next time you eat an egg – think of all the hard work that went into its production!



Celestial Chickens

You're standing outside St Martin's Tower, all that remains of the 12th-century church that is situated in Carfax (the name derived from the French 'carrefour', meaning cross-roads). Look up. Can you see the cockerel-shaped weathervane? It's one of several cockerel-shaped weathervanes in Oxford. Others are perched on Wesley Memorial Methodist Church, on University Church of St Mary the Virgin, and there is one on Keble College. But none will exceed the height of the cockerel on Carfax Tower. By law, no building in Central Oxford is to be taller than Carfax Tower, so its cockerel will always dominate Oxford's busiest streets.

But who decided it was a good idea to put cockerels on top of buildings?

Well, weathervanes date back to ancient Greece. The use of chickens is slightly more recent and is linked to Jesus, for several reasons. The first is because he once referred to himself as a hen:

"Jerusalem, Jerusalem, thou that killest the prophets and stonest them that are sent unto thee, how often would I have gathered together thy children, as the hen doth gather her chickens under her wings, and thou wouldst not?" Matthew 23:37

In the 7th century AD, Pope Gregory I said that cockerels were the most appropriate symbol of Christianity. This was followed up in the 9th-century AD by Pope Nicholas who decreed that all churches should be topped with cockerels, as a reminder of Peter's betrayal of Jesus. The earliest artefactual evidence for cockerel weathervanes is a 9th-century example, currently on display at the Museo di Santa Giulia in Italy.

For England, the earliest evidence for cockerel-topped spires is found in the 11th-century Bayeux Tapestry (the embroidered story that tells the events surrounding the Battle of Hasting in 1066). It depicts the installation of a cockerel weathervane on top of Westminster Abbey following the Norman Conquest.

At about the same time, the laws surrounding fasting were tightened and people were prevented from eating four-legged mammals for nearly one third of the year. So the Normans did two things: they founded hundreds of churches with cockerels on top (to demonstrate their piety), and they ate lots more chicken.

As a result, the belief that chickens should be eaten by 'good Christians' was the instigator for the commercialisation of chickens over the last 1000 years. It is therefore fitting that we are pondering this matter in Carfax, or rather 'Carrefour' – which is also the name of France's leading supermarket.



“Cockburn and Campbell” or “Cock and Camel”?

At the junction between George Street and Gloucester Street there are plenty of restaurants that have chicken on the menu. Jamie’s Italian is one of these. Only, unlike many other shops and restaurants, Jamie’s Italian wasn’t always there. This restaurant used to be a pub owned by Young’s Brewery called “Cock and Camel”, which closed in 2008.

Have you ever thought of the meaning behind place names? More often than not, place names are remnants of the past. Take Oxford for instance. Settled in Saxon times, Oxford’s very first name was ‘Oxenaforda’ meaning ‘Ford of the Oxen’. That was because there was a river crossing for oxen, and the term ‘ford’ was generally used instead of the word ‘bridge’. So how about the name of the pub ‘Cock and Camel’? Was there something related to chickens and camels nearby?

It turns out, no! The name is actually derived from the names of the wine suppliers of Charles Wells and Young Estates, the brewery that owned the pub. The wine supplier was ‘Cockburn and Campbell’, which they transformed into ‘Cock and Camel’. Can you see the resemblance? Isn’t it interesting that they used animals? This is probably because of the long tradition of pub naming. You see, many pubs are centuries old and back in the olden time, not a lot of people could read. But they could identify images. That’s why you have pub names such as ‘The Eagle and Child’, ‘The Bear Inn’, ‘The Royal Oak’. As such, what better name than one ubiquitous animal and another more exotic?



Museum Mania

Before today where did you last see, or at least notice, a chicken? Maybe in your back garden? Have you passed a late-night take away and seen some discarded chicken bones on the street? Perhaps you saw chicken meat in the supermarket, butcher or on your plate?!

Today we don’t really think about chickens that much; they are not very important to us. Some people keep them as pets, but they are most commonly thought of as food. So it might come as a surprise to you to see how often representations of chickens are found in museums; people from all

over the world, for thousands of years, have been showing how important chickens are to them by recording them in art.

You are currently standing at the entrance to the Ashmolean, the Oxford University Museum of Art and Archaeology. How many chickens can you find on display? There are some examples below, but can you spot any others?

Another great collection of chicken representations can be found right back where you started, at the Pitt Rivers Anthropological Museum. You will find the entrance on the ground floor far wall of the Oxford University Museum of Natural History. There is a huge collection of... well, **things**... from all over the world and if you look closely, I bet you can spot some chickens. How many can you find? What is your favourite?



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