Countryside Code

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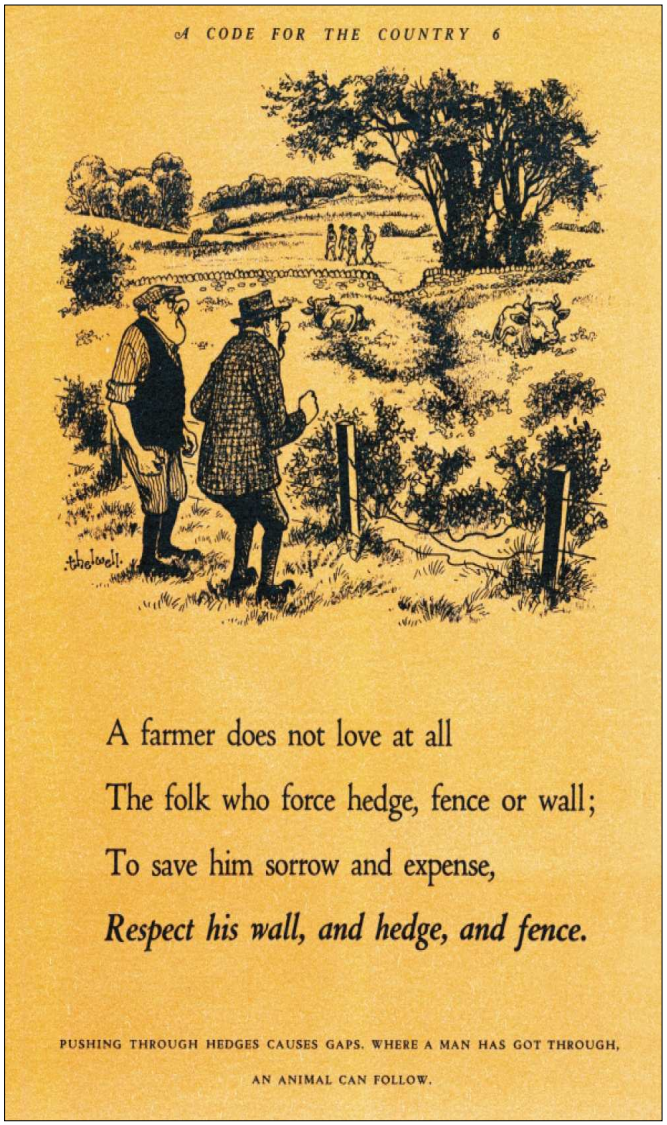
‘The’ Countryside Code



- Be safe, plan ahead and follow any signs
- Leave gates and property as you find them
- Protect plants and animals & take your litter home
- Keep dogs under close control
- Consider other people

“Most of it is just good commonsense, as it’s designed to help us all to respect, protect and enjoy our countryside. The Code … makes it clear what the responsibilities are for both the public and the people who manage the land.” (www.countrysideaccess.gov.uk)

Part 1:
the Countryside

Audience Questions

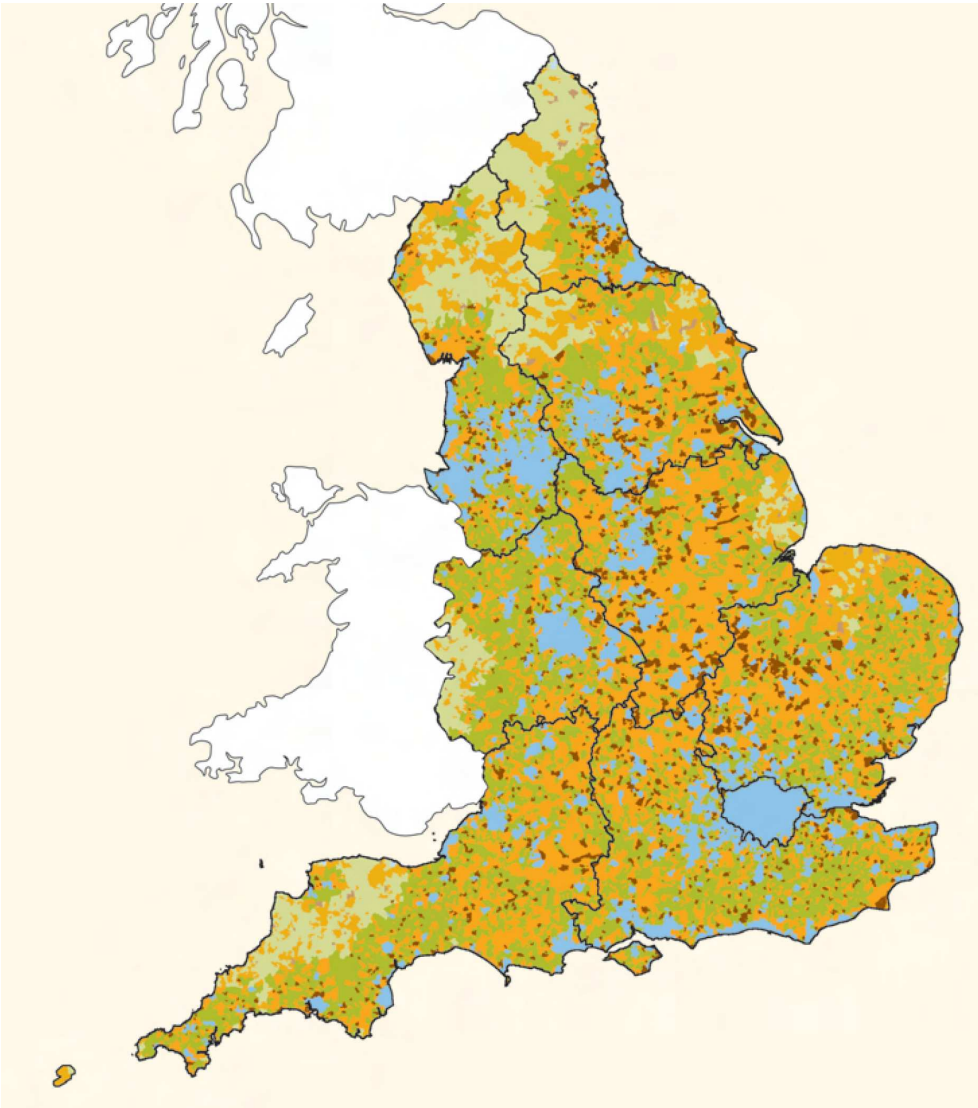
1. Who lives in the countryside?

2. Who would like to live in the countryside?

3. Who has worked in farming?

4. Who would like to be a farmer?

The importance of the countryside



- Long running decline in economic and labour value, but
- Some 80% of area of England classed as rural
- Socially significant – home to around 9.5 million people
- Resources – food, energy, water, recreation
- Large public subsidies to agriculture, £3.7b in 2005/6

Rural idyll or agro-industrial landscape

The Cornfield, John Constable, 1826

- Social construction of the ‘rural’ in popular imagination of Englishness
- Appears as opposite of the urban and the modern
- Natural, peaceful & quiet
- The countryside is a safe place
- Yet, little or nothing of ‘nature’ in the English countryside
- Materiality results from political economy – fields, land-ownership animals present/not present, etc
- Range of distinct social problems and dangers. A fearful place, perhaps, if you are ‘out of place’

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More culls in bird flu outbreak

About 22,000 turkeys on four premises are being culled as a precaution, after the virulent H5N1 strain of bird flu was found in turkeys on a Suffolk farm.

The farm prepared birds for the Christmas market

Officials said it was not yet known if the birds had contracted the virus.

A cull of 6,500 birds is also nearing completion at Redgrave Park farm, near Diss, where the infection was discovered on Sunday.

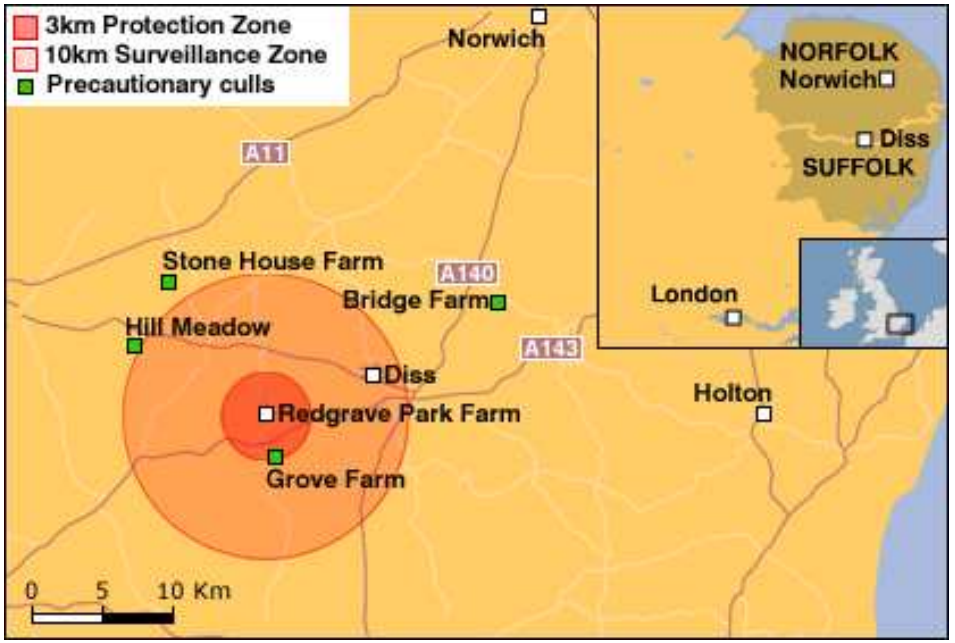
Gressingham Foods' subsidiary Redgrave Poultry, which runs all five sites, said they shared the same farm staff.

A "direct link" had thus been established between them, it said.

A 3km (1.9 mile) protection zone and a 10km (6.2 mile) surveillance zone, where movement of birds is restricted and poultry must be isolated from wild birds, is in place around Redgrave Park.

One of the four sites is within the protection zone and the other three lie within the wider restricted zone, covering much

> **"This is a precautionary measure taken to prevent any potential spread of the disease"**



Hybrid countryside(s)

- Murdoch (2003: 274) “The countryside is hybrid… it is defined by networks in which heterogeneous entities are aligned in a variety of ways”
- Woods (2007: 495), “it is made (and constantly remade) through the entanglement and interaction of the social and the natural, the human and the non-human, the rural and the non-rural, and the local and the global.”

- The question for me is in what ways are ‘everyday computing’, sensors/monitors, databases and software algorithms becoming entangled in this
- What difference does *code* make in the countryside, particularly in farming practices

Code in the Countryside – not there or overlooked ?

- *"The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it."* (Mark Weiser)

- Socio-technological analysis and the stories told of everyday computing are urban, even if not explicitly so (including my own research)
- Little in ubi-comp literature on rural contexts
  - Except odd 'techno-hype' pieces about distributed sensor nets on farms and bio-instrumentation of livestock
- Why is the countryside seen to be devoid of code? Green and pleasant landscape rather than obvious technological infrastructures and grey concrete. Appearance of unmediated fields, trees, ordinary farm animals and uncoded natures
- But beginning to dig out empirical evidence of software in the 'wild', particularly to ensure the 'safely living' of the outputs and activities agricultural industry

Part 2

Code – some(useful)analytical concepts

- Nigel Thrift: ‘automatic production of space’; ‘technological unconscious’

- “More and more of the spaces of everyday life come loaded up with software, lines of code that are installing a new kind of automatically reproduced background and whose nature is only now starting to become clear.” (309)
- Emergent properties of code: “somewhere between the artificial and a new kind of natural, the dead and a new kind of living”; has a “presence as ‘local intelligence’” (310)

- Thrift N, French S, (2002) “The automatic production of space” *Transactions of the Institute of British Geographers* NS 27 309-335

- Steve Graham: ‘software sorting’
- “techniques now being widely applied in efforts to try to separate privileged and marginalized groups and places” (562)
- highlights the “central role of computerised code in shaping the social and geographical politics of inequality in advanced societies.” (562)
- hidden and automatic discriminatory action, “because most processes of software-sorting are actually invisible from the point of the users, these prioritizations are often not evident either to the favoured groups or places or to the marginalized ones.” (566)

- Graham S D N, (2005) “Software-sorted geographies”, *Progress in Human Geography* 29(5) 562-580

- David Beer: ‘thoughtful territories’

- “what can be seen is a shift toward thinking technologies that in some way are beginning to take decisions out of our hands.” (2007: 230)

- Beer D, (2007) “Thoughtful territories: Imaging the thinking power of things and spaces” *City* 11(2) 229-238

- Martin Dodge & Rob Kitchin: ‘code/space’; ‘machine-readable world’

- Software beckons new spatial formations into existence – in three related ways: code/space, coded space, background coded space
- *Code/spaces* are spaces dependent on software to function, that is the relationship is dyadic. Without software-enabled technologies the space would not be produced as intended

- Dodge M, Kitchin R, 2005, “Code and the transduction of space” *Annals of the Association of American Geographers* 95(1) 162-180

- *Coded space* is a spatial transduction that is mediated by coded processes, but whose relationship is not dyadic. In other words, software enabled technologies produce particular spatialities, but if they are not present a space is still produced as intended but less efficiently or cost-effectively
- *Background coded space* is where code has the potential to mediate a solution if activated
- potential codings include local, but turned off, sources of code such as coded objects and infrastructures (e.g. water, electricity), and GPS, radio and mobile phone signals which are always ever present, but mute until activated
- Dodge M, Kitchin R, 2005, "Code and the transduction of space" *Annals of the Association of American Geographers* 95(1) 162-180

- *Machine-readable world*, “identification codes to all entities by using media that can be ‘read’ and acted on by software independent of human control.” (852)
- “The undeclared logic of the machine-readable world is ‘all data, all the time, on all people, at all places’, where risk is eliminated through perfect knowledge.” (870)

- Dodge M, Kitchin R, 2005, “Codes of life: Identification codes and the machine-readable world” *Environment and Planning D: Society and Space* 23(6) 851-881

Part 3:
‘Coding the farm’

Making the farming knowable and safer(in new ways?)

(i) regulating safety in the food supply chain by coding livestock (and subsequently parts of livestock) so they are traceable from ‘farm-to-fork’

(ii) producing ethical standard requires new depth of information on the nature of whole production process available direct to consumer

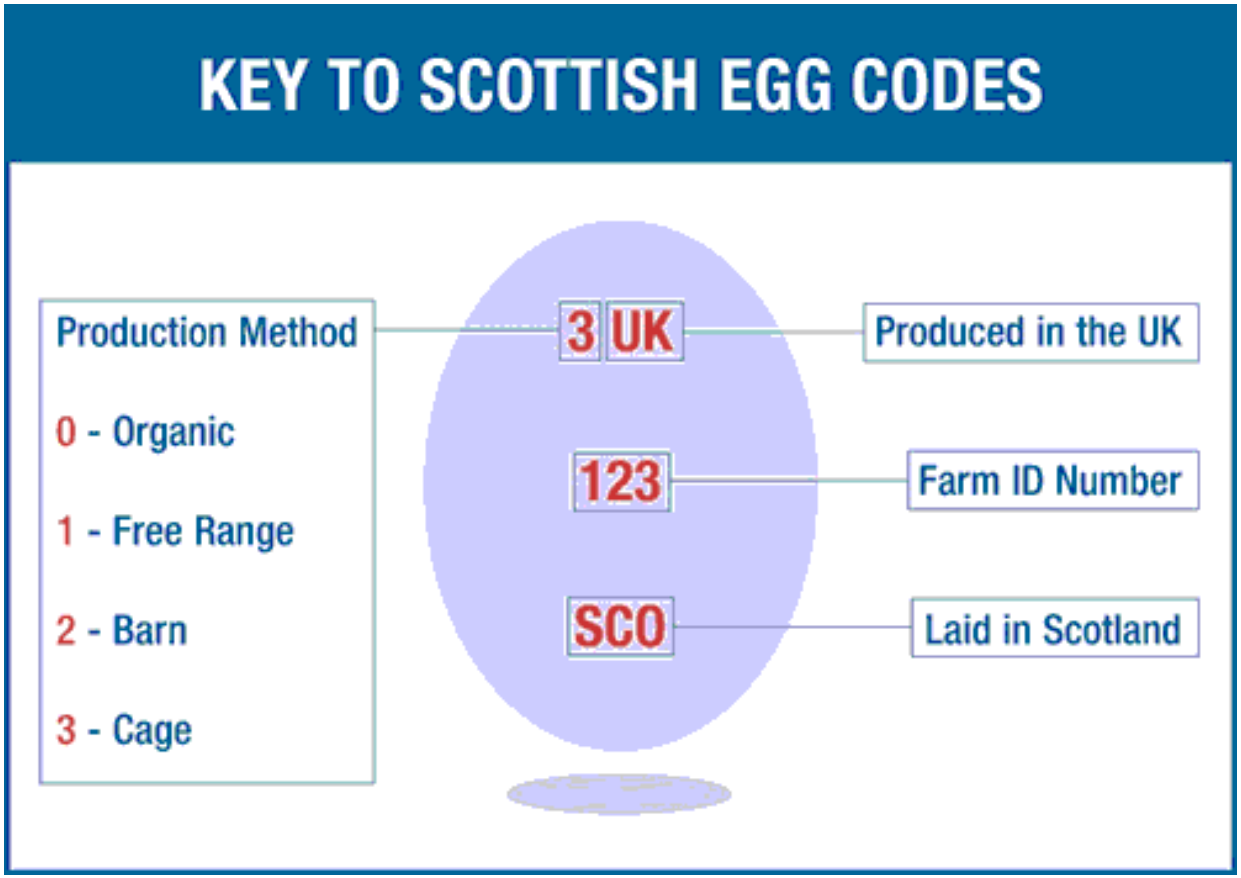
(iii) enhancing automation of farm labour by taking ‘precision farming’ to the animal. Stockperson become screen worker

(1) Safe food by abstracting animals

- Safety with life cycle traceability
- Made machine-readable

- Cattle tracking service
  - check which animals are present on a holding
  - check where an animal has been during its life
  - trace animals exposed to a disease risk
  - give assurances to buyers about an animal's life history, and so
  - strengthen consumer confidence in beef

(2) Ethical Eating – 'google your grub' as consumer empowerment



Where did my egg come from?
Looking-up the FarmID

- “While extremists undoubtedly already have their networks for finding their targets, the release of the information on the list would, in the Commissioner’s opinion, certainly make it much easier for such organisations to establish their locations. The Commissioner recognises the strong public interest in the origin of food but, in all the circumstances of the case, he considers that, given the real risk to the health and safety of those producers (and their staff) included in the list, the public interest is, on balance, better served by maintaining the exemption so as to withhold the information in question.”

- Source: Freedom of Information Act 2000, Decision Notice (ref FS50089403), 20 December 2006. Information Commissioner’s Office

(3) Taking automation to the next level

- sowing with software – coding field knowledge with precision agriculture has been around for a decade or more
- “When my uncle drove his little red tractor, he perched on a metal-pan seat, protected from the sun by a straw hat. Times have changed. The modern farmer sits in an air-conditioned cab with an audio system, an air suspension seat, and a beverage cooler …. The tractor is equipped with a GPS receiver…. An on-board computer uses the geographic information to dispense pesticides or fertilizers according to the needs of each small section of the field.” (Hayes 2005: 119)

- Automatic milking systems
- Huge capital investment
- Code changes practices for cows (on-demand, recognised individually) and stockperson
- Controversial as it appears so ‘unnatural’
- No-grazing systems mean cows ‘disappear’ from the countryside

You have full control

1. A touch screen gives you easy control during milking. You have real-time access to all the monitoring information you need such as cow ID, quarter flow rate, volume and cleaning status of the milking process. You can pilot the DeLaval online cell counter OCC during milking to view the SCC right from the touch screen.

2. DeLaval VMS features true quarter milking with four optical milk meters monitoring milk yields, flow rates, time, conductivity and blood levels.

3. The system´s integrated cleaning unit reduces cleaning time by 40 percent, which increases milking capacity. The entire cleaning process is controlled by the system and reported in the management software to give you optimal hygiene control.

4. The fast and gentle hydraulic multi-purpose robotic arm takes care of preparing the teats before milking (including optional pre-spray), attaches the teat cups, re-attaches if needed, aligns the milk tube and sprays the teats after milking.

Conclusions

- Contemporary farming practice and governance – including such issues as food safety, animal welfare, automation, environmental protection, and efficient subsidy payments – are using software
- The emergence of this ‘countryside code’ is predicated on algorithmic data processing which transduces farming practices, land, crops and livestock in machine-readable objects

- But how far are some farm spaces now code/space? are coming to *depend* on software and distributed information systems to function

- Is software now *automatically* managing rural conduct and insuring safe living? As such has it some similarities in governance effect to the original 1951 Country Code?

References

- Beer D, (2007) “Thoughtful territories: Imagining the thinking power of things and spaces”, *City* 11(2) 229-238
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- Woods M, (2007) “Engaging the global countryside: globalization, hybridity and the reconstitution of rural place”, *Progress in Human Geography* 31(4) 485-507

Image Sources

- Slide 1: Illustration by Robin Hursthouse, scanned from The Guardian, Field Experts, Saturday July 21 2007, <http://www.guardian.co.uk/money/2007/jul/21/careers.work>
- Slide 2: Scan from original 1950s Country Code with cartoon illustration drawn by Norman Thelwell. Source: <http://www.countrysideaccess.gov.uk/content/download/613/3747/file/thelwells_cartoons.pdf>
- Slide 5: Map from Defining Rural England Report, July 2007, page 5. Source: <http://www.ruralcommunities.gov.uk/publications/crc49definingruralengland>
- Slide 6: Constable painting. Source: <http://en.wikipedia.org/wiki/Image:John_Constable_008.jpg>
- Slide 7: Pyre of culled animals from foot and mouth disease outbreak in 2001. Photography by Michel Spinger, AP/Wide World Photos. Source: <http://www.scienceclarified.com/dispute/Vol-1/Should-the-threat-of-foot-and-mouth-disease-be-met-by-the-destruction-of-all-animals-that-might-have-been-exposed-to-the-virus.html>
- Slide 8: BBC News website. Source: http://news.bbc.co.uk/1/hi/uk/7093806.stm
- Slide 20: Cattle ear tag. Source: <http://www.defra.gov.uk/animalh/id-move/cattle/memberstates.htm#2>
- Slide 21: Egg code diagram. Source: <http://www.scotland.gov.uk/Publications/2006/01/30141228/4>
- Slide 23: Fieldstar precision agriculture brochure. Source: <http://www.fieldstar.com/Agco/FieldStar/FieldStarUK/FieldstarBroUS.pdf>
- Slide 24: DeLaval marketing brochure. Source: <http://www.delaval.com/NR/rdonlyres/E8455914-F039-49F0-A56D-98720E04897E/0/vms_basic_brochure_web.pdf>
- Slide 25: De Laval marketing brochure. Source: <http://www.delaval.com/NR/rdonlyres/E8455914-F039-49F0-A56D-98720E04897E/0/vms_basic_brochure_web.pdf>

Further reading

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