



## Insect City

A report by **Dr Matthew Ingleby** of UCL [Urban Laboratory's](#) one-day research workshop exploring relationships between insects and cities across the arts and sciences. Insect City was convened by **Dr Matthew Beaumont** (UCL English Department) and **Dr Ben Campkin** (UCL Urban Laboratory) and held on 25<sup>th</sup> October 2011 at the UCL Grant Museum of Zoology and Arup Phase 2 Gallery.

BBC2's flagship current affairs magazine programme *Newsnight* is sometimes criticized for the gimmicky ways in which it presents its eclectic topics. The episode broadcast on Thursday 27<sup>th</sup> October 2011, which showcased the insect as human food source, however, demonstrated just how thought-provoking the programme can be, even at its most playful. After a report by Justin Rowlatt on the possibilities of addressing worldwide resource shortages through radically broadening our dietary horizons, chef Stefan Gates and Columbian Ambassador Mauricio Rodriguez invited presenter Kirsty Wark to sample some pan-fried bugs. A couple of days later, the 31<sup>st</sup> October edition of the *New Statesman* followed suit, Felicity Cloake dedicating a food column to the 'protein benefits of an insect-filled diet', which introduced us to the Victorian naturalist Vincent M Holt, whose *Why Not Eat Insects?* (1885) was one of the first modern texts seriously to advocate the practice.

There seems to be something of a buzz about reconceptualising insects in the media currently, and *Insect City*, a one-day interdisciplinary academic symposium held at UCL, was a particularly nuanced participant in this cultural moment. While, perhaps surprisingly, humans *eating* insects did not receive any sustained attention, most other conceivable relationships between the two forms of life were touched upon, via a diverse and enlightening assortment of presentations by scientists, medical historians, urbanists, and artists. Culminating in the appearance of speculative fiction writer [China Miéville](#), who read us an original specially-commissioned short story, 'The ninth technique', about the use of insects in torture, the whole day was intellectually nutritious in its persistent engagement with the different kinds of 'intersections' between us and them in urban modernity.

In the morning's session, held in the impressive setting of the newly refurbished UCL Grant Museum of Zoology, we were seated next to a case full of seemingly identical bugs, visibly pinned as if to keep them from flying away. Pursuing an intriguing though necessarily elusive connection between etymology and entomology, **Matthew Beaumont** (UCL English) introduced the day by releasing into discursive complexity creatures that usually seem limited in the human imagination by their role within our cultural economies of disgust. Teasing out the linguistic interest of the English word 'insect', Beaumont informed us that it has at times been used as a verb as well as a noun. While to 'bug' someone means to irritate or annoy them, like a flying pest, it appears that to 'insect' something can express the action of 'cutting into' it. Intriguingly, it may be that the word has emerged from what we do to the thing it names. While swatting may be the more common response to them, entomological scientists spend their time insecting insects, a habit we in the audience were invited to share in, metaphorically, for this one day at least.

To begin the first panel, **Mark Carnall** (Curator, Grant Museum) explained the use of insect populations as environmental indicators. They respond very quickly to shifts in climate by exponentially multiplying, dying out or moving on, each species' ability to live and breed

fluctuating in accordance with its particular temperature and humidity range. Unlike bacteria, which are similarly responsive, insects are more often than not conveniently visible to the naked eye, so they serve as a handy scientific tool of climate testing, an increasingly important aspect of scientific endeavour. The relative visibility of insects means that they have in the past proved themselves to be attractive to less-utilitarian collectors too. Though the academy's thinking about the ethics of collecting has changed, we nonetheless remain guardians of some enormous bodies of work in this regard, historical bio-libraries of insects from all over the world that have been carefully (and not so carefully) arranged captured, killed and preserved by the gentleman collectors of previous centuries, a species as apparently extinct in contemporary cities as any on display. These collections now herald a means by which climate scientists can discern climactic changes over a long period.

While the curator's job is to manage but also vivify the miscellany of dead matter in his or her collection, to draw out its relevance for current human aspirations, the Pest Control officer seeks to eradicate all-too-live insects for a similar public good. Both jobs are related to climate change, and to the mitigation of its negative effects, though as the pictures of **Scott Meadows** (Entomologist and Head of Plant Health, Jersey) and his team dressed up in protective gear showed, the latter might be seen to be closer to the action. Meadows discussed one topical example of an insect species' population changing in relation to climactic fluctuations: the case of the recent Oak Processionary Moths infestations in Jersey's capital St Helier, where he works. The caterpillars, whose tree nests in a park had grown to the size of sleeping bags, were the cause of individual health problems for the unfortunate people who came into contact with their poisonous hairs, but also sparked a minor political controversy. When a local councillor heard on the news that Scott's team were set to cut down two trees in a bid to rid the town of a potential public health crisis, he drove over to them and impeded the process by embracing the threatened oaks. Ironically, his tree-hugging episode proved more sacrificial than he probably anticipated, when he ended up in hospital, suffering from a major allergic reaction.

**Matthew Gandy's** (UCL Geography) paper took the seemingly opposite approach to insect life, being unashamedly celebratory of a kind of animal often categorised as a pest. Revealing his ulterior life as moth recorder, Gandy introduced us to some of the many beautiful species that can be found in his own locality of Hackney. Moths, though more common in rural areas, are nonetheless very much an urban phenomenon, and despite the problems caused by the light pollution that accompanies so many cultural practices specific to modern cities, from winter evening football matches to increasingly panoptic and paranoid crime deterrent systems, they strongly contribute to London's biodiversity. Recent technological advances, such as digital cameras and the internet, have led to an increase in citizen scientists and a rapid expansion of the possibilities of insect recording, it being now possible to pool expertise internationally: one can upload a picture of an unidentified moth only to be informed within minutes of its Latin name by someone in another country who may not even speak one's own vernacular. As in the effects of climate change itself, technological and social networks in the twenty-first century mean that the global effectively collapses into the local.

For the afternoon session, we were hosted by **ARUP** in Fitzrovia, a firm of engineers and built environment professionals, where artist, architect and urban ecologist, Friz Haeg, has curated an exhibition and workshop space exploring the idea of designing homes for 'wildlife clients', as part of an ongoing international project called [Animal Estates](#). A number of the 'clients' are insects, including the stag-beetle, a 'high profile' figure in urban biodiversity discourse.

While aesthetically extravagant moths are disturbed by the nocturnal luminosity of the modern city, bedbugs thrive on darkness and contemporary human habits, as **Ben Campkin** (UCL Urban Laboratory) reminded us. As one New York City pest-control advertisement puts

it, picking up on their unnerving symbiosis with fast-paced urban living: 'Why the city never sleeps? BEDBUGS work all night.' Exploring the place of this particularly loathed insect within the cultural imagination, Ben analysed the way the *Cimex Lectularius* has returned to our private sleeping chambers and collective nightmares after a mid-twentieth-century period in which scientists and planners thought it had been all but eliminated. A 1920s photograph of a blood-stained pillow from a London slum crystallized the vampiric quality of this species, and just as Bram Stoker's *Dracula* channelled xenophobic invasion anxieties in its own day, the cultural representation of this smaller but likewise sanguinary creature is currently being recruited to do conservative ideological work, in stigmatisation through race and class. As had been mentioned in the discussion following Mark Carnall's talk earlier, insect migrations often become misreported in the mass media through their distorting association with pressing cultural-political concerns about human migration. In the case of bedbugs, it is the ethnic minority cleaners that get blamed for their possible (though difficult to prove) exponential rise, rather than the hotel clients.

**Helen Bynum's** (author of *Tropical Medicine in the Twentieth Century*) paper was one of a number that drew out the political uses of insects. Drawing upon the socio-economic relationship between two cities directly involved in transcontinental slavery, Britain's Liverpool and Freetown in Sierra Leone, she discussed the way that mosquito-borne malaria drove the growth of research institutions in the former and catalysed the building of whole new parts of the latter, at higher altitudes away from infestations. While a new centre for tropical medicine was founded in Northern England's most important port, insect-borne disease became an excuse for restructuring the African city's social space, leading to the introduction of racial segregation by the back door in an urban context supposedly founded on the liberal principle of freedom for former slaves.

**Bill Bynum** (UCL History of Medicine) discussed the history of malaria, and in particular the late nineteenth-century discovery of one insect's role in its spread: the mosquito. Recognising that medical and biological taxonomies evolve over time, he showed that the presence of malaria in 17<sup>th</sup> century London can be with reasonable certainty retrospectively mapped, through interpreting the prevalence of obsolete diagnoses like 'ague' in the low-lying swampy parts of the city. Though the mosquito as a specific species came to prominence in nineteenth-century culture, the 'gnat' – a less exactly proscribed and more heterogeneous category – would have almost certainly included it. Tellingly, it was said that people used to go on a daytrip to the Essex countryside to hunt pheasants, but return to the city with 'a heavier load of fever', an indication of this insect's occluded presence. From both his historical test-cases – early-Modern London and early 20<sup>th</sup>-century Bombay (Mumbai) – we were led to the conclusion that malaria is really a rural rather than an urban disease, cities being repositories but not active producing agents in malarious epidemics.

From **Tadj Oreszczyn** (Director, UCL Energy Institute) we heard about the intimate but problematic relationships between dust-mites and humans in the bedroom, the bed being a major site of exchange (a double mattress, we discovered, is equivalent to the size of London to the dust-mite). Recasting the human as unconscious food source, we learnt that a typical man or woman produces between 0.5 and 1 gram of dead skin per day, enough to feed several thousand of these mites for a month, while the insects cause allergic reactions in the humans with which they cohabit, being a major factor in the asthma epidemic that costs the UK economy £2 billion a year, and a not inconsiderable number of fatalities. Scientists have been trying to work out how and why the different trends in domestic behaviour have affected the growth of this insect population, experimenting with changing temperature and humidity levels in a controlled environment in order to work out how to reduce the prevalence of a source of irritation for many and actual danger for some. It seems that our resource-hungry and climatically deleterious penchant for hot humid homes may have something to bear upon the apparent rise of this insect population, though, as Oreszczyn's experiments suggest, the correlations are not entirely lucid.

In his discussion of the stag beetle, **Jamie Lorimer** (King's College London, Geography) explored the way that this increasingly high profile insect's habitat of decaying tree stumps means that its survival is threatened by the logic of modern urban life. Modern cities are characterised by the standardisation, beautification and ordering of the natural world, removing death and decomposition from the frame of view, and catering to the cultural preference of Western urbanites for controlled visible change to gradual and organic metamorphosis. Even conventional conservation work has tended to prize industry and intervention, but creatures like the stag beetle rely on the inaction of human agents, rather than their conscientiousness, and insects can only participate in 'deadwood ecologies' if the clutter of wood from fallen trees are not tidied up. The desire to protect one of the stupendously large numbers of beetle species (apparently 1 in 3 of all animal forms is a kind of beetle) is changing our aesthetic sensibilities so that we are becoming increasingly attuned to living in an environment in which life and death are not binary opposites so much as two sides of one ecosystemic coin.

Stimulatingly, **Jennifer Gabrys** (Goldsmith's, Design and Environment) provided us with a menu for 'Calliphora's Supper Club', which showed us how interactive the 'shared comestible worlds' of flies and humans really are. 'Urban trophic ecology starters', such as Biodegradable Waste-and-Flesh Canapés and Carbon-recycling Soup, were followed by 'Palate cleansers', like Snack-habitat glacé and Litter-leaf Soup with Refuse-infused vinaigrette. Through high profile campaigns about the risks of bee population depletion, the general public has become aware of the complex network of ecological consequences that attends insect behaviour, but is less conversant in the important role of less culturally validated creatures in the decompository stage of the life cycle. Gabrys explored the paradox that three bluebottle flies might be more destructive than a lion, pointing out that considering how fast these insects reproduce, within the space of a couple of days, a handful could become tens of thousands, and make light work of recycling any flesh, and returning its particles to other biological contexts. Employing Donna Haraway's posthumanism, Jacques Derrida's work on the place of eating within the construction of social life, and Julia Kristeva's idea of the 'abject', Gabrys implicitly suggested we rethink our interspecies interaction, via the medium of the food worlds we necessarily cohabit.

**Eleanor Morgan** (UCL Slade School of Art) stretched the definition of insect to include another culturally related but anatomically distinct creepy-crawly: the spider. Framing her own use of spider silk as an art material, she explored some of the ways in which the versatile substance had been exploited over time and across cultures, it having been used as bait in fishing lines in some parts of the world, and to make hats and bags in others. Most influentially, the seventeenth-century English astronomer William Gascoigne found in spider silk a material sufficiently strong yet thin enough to be used to make a grid pattern over a telescope that would not obstruct the line of sight. This made it possible more accurately to measure the relation of celestial bodies to one another, a fact that led to a whole host of scientific breakthroughs for which we implicitly owe something to spiders. Encouraging us to think of the arachnid as a collaborator in human innovation, Morgan introduced us to the extraordinary figure of Mary Pfeiffer, the world's first professional web collector – 'Spider Lady' - a woman with whom in her artistic practice she evidently feels much sympathy. Drawing upon the aesthetic rather than the technological potential of the creatures, Morgan's own work springs from the uncanny juxtaposition of music and the macabre surrounding the form of the spider's web. Apparently, the sound of the male spider 'plucking' a web is subjected to a critical audience by the female spider, which evaluates his performance, and decides on that basis whether to mate with him or eat him up. After playing us a recording of this peculiar kind of insect song, we learnt of Morgan's own performance project, which appropriates the myth that spiders are attracted to the sound of young female humans singing. Following her prototype, in which she sang a duet with a spider, by linking up a

choker around her throat woven from spider silk to a web, and singing, thus provoking a spider to respond to the vibrations, she is now preparing a children's choir to do likewise.

In the penultimate presentation, **Joanne Bristol** (UCL Bartlett) discussed a recent exhibition in Berlin, which addressed ideas of sharing space by making humans cohabiters with spiders and ants of the same gallery site. Exploring the way the word 'curator' links zoos and art collections together, she cast the work of the insect in the terms of Walter Benjamin's famous theorisations of cultural media, and speculated on what might be the 'trajectories of interspecies production'.

To conclude the day, in his oblique yet absorbing short story **China Miéville** drew on the recently published memos from Guantanamo Bay to explore the way interspecies cohabitation has been mined more frequently as a site of nightmare rather than aesthetic stimulation or conceptual enlightenment. Imagining a tentative conversation surrounding a box containing a non-stinging insect used as a means of psychological torture, we are made gradually aware of the instrumentalisation of a classic phobic figure in the sublimated practices of contemporary geopolitical conflict. In a fitting end to a symposium in which speakers had variously sought to reconceptualise the insect-human relationship, in order to escape from the dead-end of common fear and hatred responses, Miéville returned us to the visceral bodily rejection many of us experience in response to bugs of one kind or another, but to demonstrate how this reaction makes us more vulnerable to each other, and to the human powers that be.

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