PhD Spotlight Finalists

ELISE BIKKER, English and Related Literature

Biography: Elise Bikker has an MA in History of Art (Leiden University, The Netherlands) and Modern and Contemporary Literature and Culture (University of York). She is fascinated by artificial life and intelligence and is currently in the second year of a PhD in English at the University of York: Conscious clockwork: The thinking machine at the intersection of the real and the imagined in Europe 1769-1927.

Title: Can machines make us immortal?
Summary: Could machines help us live forever? From the late eighteenth century mechanic machines were created that simulated human movement, speech and thought. These machines, such as an automatic chess player, are at the beginning of current attempts to preserve the body, improve intelligence and rescue the mind and identity from the natural process of aging and death; boundaries between natural and artificial life and intelligence begin to blur. My thesis focuses on intelligent machines from the late eighteenth until the early twentieth century that set the scene for current thought on devices promising a longer or everlasting life. The transhumanist movement in particular aims to cheat death by uploading the brain into a robotic body in a technologically more advanced future.

AARON BRUSSEL, Archaeology

Biography: Aaron is a History PhD research candidate at the Belgian ‘Vrije Universiteit Brussel’, and a visiting researcher at the University of York’s Archaeology department. His research focuses mainly on the economical and environmental history of Roman Italy. His PhD aims to model animal carrying capacities in the Late Republican period. Outside of academia he worked as an educational officer for Oxfam-in-Belgium, designing programmes explaining market failure in cocoa and coffee supply chains.

Title: Cowpacity: animal feed carrying capacities on Roman Italian farms
Summary: Historians traditionally assumed that farm animals were uncommon in Roman Italy: fodder plants and grazing lands could not prosper due to long dry summers, unpredictable rainfall and the hilly, forested terrain. Scarcce quality farmland had to be used to grow food for the growing human population, not feed for animals. Recently, archaeozoology showed that most sites held herds of cattle, pigs, sheep and goats; Italian farmers could maintain more livestock than previously thought. But how did the farmers overcome the environmental constraints and which farm types could hold which types of livestock production? By studying modern and historical farm practices together with archaeological remains of plants and animals we can estimate carrying capacities: the production and consumption of feed. By doing so, we can gain insights about the (un)sustainability of farming practices.

PHILLIP CHIVERS, Chemistry

Biography: Originally from Wigan, Phill completed his Masters degree in Chemistry at the University of York in 2015. As part of his studies, Phill worked in an industrial chemistry company in Teeside, but he missed York too much and returned to study for a PhD. He is interested in the uses of gel-based materials for medical applications. A highlight of his PhD was being invited to present his work in Barcelona.

Title: Smart Gels for Smart Medicine!
Summary: Doctors have lots of brilliant medicines to treat all sorts of diseases, but getting these treatments to only one targeted part of the body is a big challenge for illnesses such as cancer. Better targeted medicines have the potential to revolutionise medicine: delivering each dose where it is needed most and increasing the success rate of treatment and reducing side effects. Gels are used widely in foods and cosmetic products and recently to deliver medicines. However, most of these gels release the treatment throughout the body rather than specifically where it’s needed. We have developed a ‘smart gel’ which is able to target the release of painkillers. By combining this with a rigid gel we can make shaped patches or implants which in the future we hope to use to specifically target cancer cells.

REBECCA HALL, Biology

Biography: Rebecca is a third year PhD student in the Department of Biology. She completed her undergraduate degree at York and, after a year working as a lab technician, returned in 2015 to continue her research career. Rebecca has always been interested in microbes and how they cause disease. Outside of the lab, Rebecca runs her own science communication blog, An Anxious Scientist, and plays for the City of York Hockey Club.

Title: Small But Mighty: How an insect’s helpful microbes may prevent deadly diseases
Summary: Some of the deadliest diseases in the world are also some of the least well known, occurring in poorer areas where there is not easy access to good healthcare. Scientists are concerned that the drugs used to treat these diseases may stop working and are looking for ways to prevent the diseases by targeting the insects that spread them. Mosquitoes spread malaria. In the same way, the tsetse fly may infect you with a parasite that causes sleeping sickness. Sleeping sickness is found in Africa and the infected person will die if they do not receive treatment. I research ways to stop the tsetse fly from spreading sleeping sickness. I run experiments both in the lab and on my computer to learn how to stop the parasite from surviving inside the tsetse fly.
EITHNE KAVANAGH, Psychology

**Biography:** Eithne is in the second year of her PhD in the Psychology Department. She spent four months in Leipzig Zoo, in association with the Max Planck Institute, collecting data on chimp and bonobo groups. She will go to three other zoos for the current project. Eithne is also visiting Perth, Australia to work on a project on dolphin communication, and Uganda to conduct fieldwork on human and chimp mothers and infants.

**Title:** Are chilled chimps chattier?

**Summary:** Chimpanzees and bonobos are the closest living relatives to humans. This makes them the ideal species for studying the evolution of human language. As humans are social creatures, and language is a social behaviour, social factors may have caused a simple communication system to evolve into language. One social factor might be dominance. Primates form dominance hierarchies, whereby some group members have a higher social status than others. However, a strict hierarchy may limit social behaviour. So, my project tests whether the strictness of dominance hierarchies influences how chimps and bonobos communicate. I observe their behaviour in zoos to assess their dominance style, and their communication. I expect that those with a more relaxed style communicate more often and more elaborately. This finding could suggest that a relaxed dominance style in our human past allowed communication to become more elaborate, eventually forming language.

DANIEL ROBINS, Sociology

**Biography:** Daniel has just started the second year of his PhD in Sociology. He holds an undergraduate degree in Sociology and Social Science, which involved the study of Anthropology, Philosophy, Social Psychology, and Criminology, and a masters in Criminology and Criminal Psychology. This background has allowed him to view first-hand how the social sciences can overlap with one another. His research in the macabre follows this by marrying elements of Sociology, Criminology, and Anthropology.

**Title:** Our corpses are a matter of grave concern

**Summary:** What on earth is 'necro-waste'? Simply put, it is a way of understanding the pieces of a corpse as waste. This research project focuses on how this corpse waste is disposed of in the UK. It will target two forms of disposal, cremation and natural burial, and will highlight whilst bone fragments are. The important question becomes: what are the key factors that dominate? The project forces us to encounter, consider, and reflect on the implications of our consumption. Through ‘making the familiar strange’ we challenge our settled way of viewing/knowing to explore new possibilities of belonging and ways of relating in a hyper individualised and commercialised society.

CLAIRE MCGINN, Music

**Biography:** Claire is a third year PhD student in Music funded by WRoCAH. Having realised that writing about music (alone) would always feel incomplete, her current work focuses on both the representations and the ‘realities’ of some Baltic music genres. She writes for various print and online platforms, is a tutor at the Centre for Lifelong Learning, and recently completed a research placement with the National Science and Media Museum.

**Title:** ‘Who the f*** are the Balts to us?’: Brand Estonia and commodified identities in art music

**Summary:** Where would the ideas come from? How would it take root? In 2002 Estonia’s government engaged a British marketing company to rebrand newly-independent Estonia. The campaign took existing assumptions about the country, rejecting associations with poverty, communism, or Eastern-ness, and emphasised tropes like Northern, ecological, digital, and fresh: a clean, aggressively neoliberal slate for investors and a budget Finland for tourists (boasting slogans like ‘Nordic with a Twist’). Since the designers drew on existing discourses, the brand’s visuals look similar to the marketing imagery of music by popular Baltic composers, and commercial success understandably perpetuates trends. But when ‘outsiders’ consume this package, are ‘we’ aware of its significance and how it might regurgitate stereotypes without question?

KAILING XIE, Centre for Women’s Studies

**Biography:** Kailing is a PhD researcher in the Centre for Women’s Studies. She was recently awarded the 2017 Early Career Researcher Prize by the British Association for Chinese Studies. She adopts a feminist approach to understanding how gender affects the lives of China’s urban privileged only-daughters. Kailing’s broader research interests include social justice, identity politics, and race in contemporary China. Her recent short piece ‘Her China Dream’: The Aspiration of China’s Privileged Daughters’ could be found on Discover Society.

**Title:** ‘Distant land, countless people, are all related to me’: activism through The Real Rubbish Diary Project

**Summary:** Following the recent exposure of the western recycling industry that exploits global inequality in an award-winning documentary Plastic China, we initiated the ‘The Real Rubbish Diary Project’. It aims to re-establish the ‘missing’ and ‘invisible’ connections between people, places and meanings. Believing in education as a form of activism and taking an approach through which communities can work towards change, we take our daily rubbish as an entry point to ask volunteers to use self-documenting methods like diary, photos to record and reflect on the implications of our consumption. Through ‘making the familiar strange’ we challenge our settled way of viewing/knowing to explore new possibility of belonging and ways of relating in a hyper individualised and commercialised society.

JILL SIMPSON, Sociology

**Biography:** Jill is a second year ESRC funded student in the department of Sociology. She is part of an interdisciplinary research network called ‘Relating to Data through Visualisation,’ and her PhD research explores how different people engage with and draw meanings from data visualisations. Jill’s research interests combine critical data studies, interdisciplinary social research and public engagement through creative practice.

**Title:** Telling stories with data.

**Summary:** We live in a world driven by data. It shapes policy, drives the economy and we even use data to learn about ourselves; think about the fitness apps we use to track our activity. To help us make use of all this data, designers are coming up with ever more creative ways of telling stories with it. They use complex graphs, charts and maps to help us see what the data have to tell us. But how do people make sense of numbers in the form of pictures? This research looks at how different people make meanings from visual expressions of data. It will investigate if there are things that make it harder for some people to make sense of complex graphs and charts than others. The findings will be put into practice to help designers produce better, more accessible visualisations of data.