

## Editorial Volume 5 (1)

### Introduction

We are delighted to present the ninth edition of *Exchanges: the Warwick Research Journal*, which marks the fifth anniversary of the journal. It is a good time to reflect on the past and to plan the future. *Exchanges* is undergoing a transformation: it has moved to a new website, now hosted by the University of Warwick Library; it also has a new look; most importantly, it seeks more opportunities for international collaboration. For example, Natasha and Roy, two new editors based at Monash University, play a crucial role in introducing the journal to readers there. Amid all the changes, our aim and scope remain: the journal continues to promote exciting interdisciplinary research and scholarship from researchers at all stages of their careers, with a focus on and commitment to early career researchers.

The October 2017 edition includes articles from a range of disciplines, including Classics, Archaeology, Anthropology, Engineering, Literary Studies, Film Studies, Sociology, Politics, Education, Biomedical Sciences, and Life Sciences. All of the articles published in this edition highlight the importance of breaking down traditional disciplinary boundaries. We hope that they will offer productive exchanges between different academic disciplines.

### Exchange, dialogue, and debate

This edition contains two conversation pieces on research fields as disparate as token and the automobile industry.

‘Tokens, Writing and (Ac)counting’ brings together the archaeologist and token expert Denise Schmandt-Besserat, the cultural anthropologist Bill Maurer, who conducts research on law, property, money, and finance, focusing on the technological infrastructures and social relations of exchange and payment, and Dr Clare Rowan and Denise Wilding from the Token Communities in the Ancient Mediterranean project in the Department of Classics and Ancient History at Warwick. Professor Maurer is, of course, no stranger to *Exchanges*. His views on money, payments, economy, and politics were published in a conversation piece that appeared in the October 2014 edition of the journal. This conversation is primarily concerned with tokens, which, Professor Schmandt-Besserat argues, create writing, communities, democracy, and

civilisation. The use of tokens marks a significant shift, ‘from muscle to brain, and it has an enormous influence on the leadership’ (5). The discussion of ancient tokens is topical because it situates those so-called new payment media, including Bitcoin, in a long history of payment systems that do not rely on material money.

With a wealth of experience in the automotive sector gained from both academia and industry, Professor David Greenwood discusses with Sina Shojaei wide-ranging topics, such as the UK and global markets, particularly in relation to Brexit and possible changes of policies in the US under Trump, energy storage technologies, future vehicles, and environment. In the light of the ban on the sale of petrol and diesel vehicles from 2040 in Britain, electrification technologies are brought to the forefront. Professor Greenwood regards batteries as the main challenge: ‘It’s still the biggest cost, the biggest technical hurdle’ (18). The power electronics and electric motors also pose challenges. Currently, autonomous and connected vehicles attract a great deal of attention. Professor Greenwood notes the importance of understanding the technology from human as well as technical perspectives: ‘There are lots of factors that need to be considered around how people are going to interact with these vehicles’ (23).

### **Featured section: ‘Movement’**

Movement is pertinent to current debates within and across many disciplines. It can be understood as action, motion, emotion, and mobility, ranging from physical, mental, mechanical, geographical, and industrial to musical, artistic, social, cultural, and political. People (migration and displacement), commodities and capital (trade and trade agreements), ideas and information (communication, translation, and connectivity), and images (film and television) move, and they move in all directions. What is also interesting is the lack of movement, stasis, stagnation, and standoff, for example. While the two conversations touch upon the theme, the articles and critical reflection pieces in this section engage with it more closely.

Chutian Xiao’s beautifully written and meditative ‘The Stillness in Movement: A Buddhist Reading of *Ash-Wednesday*’ does not argue that Eliot’s poem promotes Buddhism but ‘use[s] Buddhism, especially the concept of suchness, to clarify the sensibility that amalgamates the material and the spiritual’ (28). For Xiao, the poem shows and reconciles the tension between stillness and movement: ‘The stillness from God is realised in the movement of time-bound life’ (38).

In 'Brasiguaios Identities: An outcome of the pursuit of land across the Brazilian and Paraguayan shared border region', Marcos Estrada expands existing scholarship on transnationalism by demonstrating that 'non-migrants, as well as migrants, living within bordering communities, have engaged in transnationalism without the need to migrate' (42). By way of example, he studies the Brasiguaios in the landless camp Antônio Irmão and concludes that their pursuit of land for agriculture has formed their Brasiguaios identities.

Emma Patchett's 'Spatial Justice: Space, place and counter-normative movement in *Latcho Drom*' is also concerned with migration, as the title, 'Safe Journey', suggests. The 1993 French documentary film, directed by Tony Gatlif, traces the diasporic Romani people's journey from India to Spain through many countries. For Patchett, the film employs 'cinematic techniques which reflect a critical attempt to see the world, and, in effect, symbolises a method of spatial justice' (59).

'Enhancing the Employability of Chinese International Students: Identifying Achievements and Gaps in the Research Field' is a review article that deals with the mobility of international students. Xuemeng Cao reviews the development of the concept of graduate employability and considers different national contexts with a focus on China. Cao points out that 'almost all existing studies on graduate employability have a strong national focus, and few concentrate on the increasingly international dimensions of higher education and graduate employability' (82-83). As many Chinese international students choose to return to China for work, the 'connections between international higher education and graduate employment in local labour markets' deserve further investigation.

Desiree Arbo reflects on her workshop 'The Early Modern Iberian World in a Global Frame (16<sup>th</sup>-18<sup>th</sup> centuries)' in 'Defining "Movement" in Global History'. The participants discussed how a global perspective provides insights into the field and called for 'a language of movement' (94). 'Instead of creating anachronistic borders', they argued for global connections 'by studying "linking nodes" such as networks and paper trails, and by rethinking global history as a project that began in the sixteenth century with conceptions of an Iberian or Catholic globe, an *orbe hispano*' (95).

'A Pedagogy of Movement: Interdisciplinary Approaches to Human Motion' is a critical reflection on interdisciplinary pedagogy between a biomedical engineer, Nefeli Chatzistefani, and an arts practitioner-researcher, Jonathan Heron, who are designing a new module for the Institute for Advanced Teaching and Learning (IATL) at Warwick. Both biomechanics and theatre and dance studies are concerned with human

movement. To understand the workings of the human body, Chatzistefani examines its anatomy. For Heron, '[t]he "biomechanical" element therefore allows arts practitioners to re-think the human body as experimental apparatus, a sculptural instrument, an aesthetic machine, and in doing so, recall a philosophical history of embodiment that places sensory movement at the heart of meaning-making' (100).

Waiyee Loh organised a research seminar, 'China Plates and Japanned Trays: British Encounters with Chinese and Japanese Aesthetics in the Long Nineteenth Century', to explore the ways in which the movement of art objects from the East to the West influences the latter's aesthetics. The discussion draws our attention to the dissimilarities between China and Japan, which render the concept of 'the far East' inadequate. As one participant observed, 'the categories we use to describe cross-cultural interactions are often inadequate in capturing the nuances of these interactions' (109).

In 'Academic Freedom and Society: Some Critical Questions', Lara Choksey reviews her one-day conference on the ideals and practices of academic freedom across time, discipline, and national borders. Such a discussion is made all the more pertinent by the alarming fact that recently Chris Heaton-Harris (MP) has asked all Vice Chancellors in England to provide names of academic colleagues who teach European Studies, with particular reference to Brexit, and their course materials. A central question to the conference, Lara explains, 'was not the erosion of academic freedom, but whether it has ever existed in practice' (111). A wide range of issues were under scrutiny, such as the university, knowledge, data, intellectual property, the public, and the state.

### **Critical Reflection**

Researchers of all career stages attend conferences and present papers regularly, but few would perhaps reflect on their experiences as Alexander James Darracott did at the Education in a Changing World conference. Darracott asks: 'what are my conceptions of knowledge? How do these conceptions impact on my engagement with conferences? How do the conference experiences contribute to thesis development and professional development planning?' (118) These are important questions that help researchers get the most out of their conferences. The discussion of academic identities as 'dynamic and changeable relative to our perceptions and experiences within our wider research communities' (123) is also interesting.



The 28th International Biology Olympiad (**IBO**) was held at the University of Warwick this summer. IBO aims to ‘provide an educational experience, as well as promote an interest in biology’, ‘stimulate talented young people in the field of biology and help them on their way to a career in biological research’, and provide ‘an opportunity for collaboration and inspiration between students, researchers and universities across national borders’ (**128**). Therefore, it can be viewed also as an outreach activity. Achieving all these aims, the 28th IBO is considered by the organisers to be a great success.

## **Thanks**

Many thanks for your continued support of the journal through your readership and engagement with our articles. Readers play an important part in the life of the journal and we encourage you to share, comment on, enter into discussion, and ask questions about our articles and critical reflections. We hope you find this edition as stimulating and thought-provoking as we have, and hope that you enjoy reading pieces outside of your research specialisms.

Finally, we want to thank all of the peer reviewers who generously volunteered their time to read each of our submissions carefully and provided helpful, constructive feedback for our authors. We are truly grateful to Yvonne Budden, Head of Scholarly Communications at the University of Warwick, for her continued support and assistance with the development of the journal.

We look forward to the tenth edition, which will be published in April 2018 and will feature conversation pieces with Professor Wendy Larner, the Victoria University of Wellington's Provost, and Dr Stef Craps, Director of the Cultural Memory Studies Initiative at Ghent University, and a themed section on ‘Truth and Evidence’.

**The Editors**

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Farah Elahi / WMS

Dr Marcos Estrada / Sociology

Dr Catherine Lester / Film and Television Studies

Roy Rozario / Education

Daniel Silva / Politics and International Studies

Dr Andrew Taylor / Life Sciences

# Tokens, Writing and (Ac)counting: A Conversation with Denise Schmandt-Besserat and Bill Maurer

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**Abstract** *In her foundational study of Neolithic clay tokens, the renowned archaeologist Denise Schmandt-Besserat identified that different token shapes represented different goods and were used in accounting and distribution. When these tokens came to be stored in sealed clay envelopes (likely representing a debt), each token was impressed on the outside of the envelope before being placed inside (thus allowing people to see quickly what was within). Three-dimensional objects were thus reduced to two-dimensional representations, the first form of writing (and contributing to cuneiform script). These clay envelopes in turn developed into pictographic tablets; here each token did not have to be impressed into the clay in a 'one, one, one' system, but instead quantity was indicated by a numerical symbol – abstract number was born. Much of Schmandt-Besserat's work can be found online at <https://sites.utexas.edu/dsb/>. Her book How Writing Came About (1996) was listed by American Scientist magazine as one of the 100 books that shaped science in the 20th century, and she remains an active expert on all things 'token'.*

Keywords: token; writing; number; dactylonomy; cognition; material culture

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Denise Schmandt-Besserat is a renowned archaeologist and token specialist. She studied at the Ecole du Louvre in Paris before moving to America to take up a fellowship at the Peabody Museum of Archaeology and Anthropology at Harvard University. She then worked at the University of Texas, Austin from 1976 until her retirement in 2004.

In her study of Neolithic clay tokens, Schmandt-Besserat identified that different token shapes represented different goods and were used in accounting and distribution. When these tokens came to be stored in

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sealed clay envelopes (likely representing a debt), each token was impressed on the outside of the envelope before being placed inside (thus allowing people to see quickly what was within without opening the vessel). Three-dimensional objects were thus reduced to two-dimensional representations, the first form of writing (and contributing to cuneiform script). These clay envelopes in turn developed into pictographic tablets; here each token did not have to be impressed into the clay in a 'one, one, one' system, but instead quantity was indicated by a numerical symbol and abstract number was born. Much of her work can be found online at <https://sites.utexas.edu/dsb/>.

Schmandt-Besserat's book *How Writing Came About* (1996) was listed by American Scientist magazine as one of the 100 books that shaped science in the 20th century, and she remains an active expert on all things 'token' since her retirement. Denise Schmandt-Besserat and Bill Maurer both visited Warwick for the 'Tokens: Culture, Connections, Communities' conference held in June 2017 as part of the 'Token Communities in the Ancient Mediterranean' project. The project is funded by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 678042). We seized this moment to talk about tokens, society, number, and cognition, both ancient and modern.

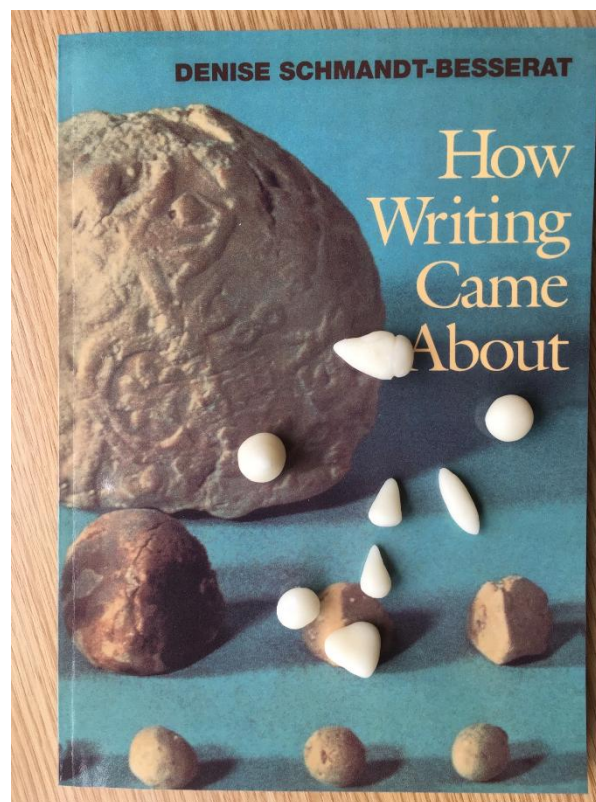


Figure 1: *How Writing Came About*, with model prehistoric tokens on top. Photo by the authors.

### **How Writing Came About: The 'eureka' moment**

*Denise Wilding*: Denise, you spent more than 40 years working as an archaeologist in the Middle East; to what extent has fieldwork there changed over time? It must have been quite a life experience, can you tell us a little about that?

Denise Schmandt-Besserat: I worked solo. When I started my study I had three boys at home, so going to fieldwork for three months was difficult for me. I did it twice, but as soon as I was in the token business it was you know.... When I did go to a site and excavate I did find 33 little cones [tokens] in my square. That was perfect. But it's only 33 little cones. When I went to museums I could accomplish a great deal in six weeks. I would be well prepared, would go to the museum, announce myself of course, and come with everything I needed. I was asking 'please show me the tokens'. So I was going to the storage, to either the attic or the basement, and I would be able to open drawers and see if the tokens were there. I knew the sites where they were likely to be, where my artefacts were supposed to be, and knew the period, so it was easy to open drawers and find them or not find them, so that was my way of going about it, and it was really a very efficient way of doing it. I told every person who would listen to me of that way of proceeding, and I don't know anybody who has done it. There were many people who had the same difficulty as I had, and it is a good way to invest four weeks or six weeks and to do so much. I was going from the minute that the museum was open. In the Middle East the museums close at 2 o'clock. Then, after 2pm, the bazaar was all mine! And I had a good feeling - I had stayed until the very end [i.e. until the museum had shut], I had a good conscience now, so it was fabulous. And I did well. The key was to do recording the way the museum staff wanted you to: wait when the key is not there, etc.

Bill Maurer: Do you think proceeding in that fashion, which gave access to tons more tokens than you would have had if you'd just been in your little square, is what helped lead you to the insight of the functions of these things?

DSB: Oh no, no, it was to prove it.

BM: So the insight came first?

DSB: Yes, absolutely.

BM: How did you arrive at that?

DSB: Well I had the *bonheur* of being at the Peabody Museum at Harvard for six years, and at that time there was a fabulous dinner for all people interested in material culture. People were there from MIT, Boston

Museum, etc, and everybody who participated was working on materials: paper, bronze, artefacts, etc. It was extraordinary. My material was clay. I wanted to examine the use of clay before pottery. I met Mr Matson [Frederick R. Matson, Professor at the Pennsylvania State University until 1978], who was the 'Pope of Clay' at that time, when he came to the Peabody museum to do a talk. I asked to discuss my project with him, and he said 'lets go have breakfast tomorrow', and at breakfast he said these magic words: 'You cannot do that by books, you *have* to go to the Middle East.' Oh wow! I never dreamt of that, so off I went to the Middle East, systematically from museum to museum to museum, with the sites that were likely to have what I wanted. Then it was fabulous because I was looking for clay, so I was asking to look at the draws of Neolithic sites before 6000 BC, and that is where I found tokens - you know, they were clay. And usually in the draw there would be figurines. In those days people were smoking a lot so the tokens would be either in cigar or cigarette boxes next to the figurines, and sometimes it was just a couple, sometimes it was by the thousand. In Jarmo [Iraq] there were more than a thousand, so in a way I much preferred when it was a little amount rather than a lot. Each one had a little *Zettel* [slip of paper] that was all prepared before so I did not forget the firing, the colour, the temper, etc. So it was by looking at clay that I found those little objects, and then I knew they were important but I didn't know what they were, so I asked archaeologists that were excavating in the Middle East:

'Do you have little cones?'

'Oh little cones, I have lots of them.'

'What are they?'

'Oh well that's your job!'

So that is my destiny with tokens, and what an interesting life it gave me. From the beginning to when I was finishing - I was in Berlin for writing the conclusion to my volume - it was still piling up nicely, fitting, everything fitting. So that's my story.

*Clare Rowan*: But how did you actually come to the realisation about what these things were? Was there a lightning bolt moment?

DSB: There was a Eureka.

BM: You captured it - the Eureka moment!

DSB: One eureka moment was when I had the books of the German who worked with the raw tablets [**Archaische Texte aus Uruk, 1936-1994**, the publication of the cuneiform tablets from Uruk in Iraq] and I opened them and I saw all the tokens everywhere [i.e. the cuneiform script

recalled the shapes made by the tokens when impressed into clay]. My husband called, and I told him, and he said those famous words: 'I think you are onto something big!'

### ***From muscle to brain: tokens, writing and the development of civilisation***

CR: What I find really fascinating about what you've pointed out is that the rise of farming and city-states, the development of civilisation, coincide with tokens (e.g. **Schmandt-Besserat, 2010**).

DSB: In fact, they don't coincide with this, they do it.

CR: Yeah, so they enable it.

DSB: Yes they *make* it. And the repercussions have no end. So the tokens bring writing, they become writing. This is civilisation. The people who were using tokens in fact were the computer scientists of the period. They were the brainy people. Before, the chief was the hunter who could kill most, but from tokens onwards the leadership were formed of brainy people. That makes an enormous shift you know, from muscle to brain, and it has an enormous influence on the leadership. And then that leadership, the more goods there were, we have *passage* from rural to urban, so that transported the world from muscle to cognition. And that is something I have not been able to pass on. I read a book about life in Neolithic communities. Well it should be full of tokens because they have been cognitively so important, but people have not yet said they were important.

### ***Tokens, money and accounting: creating and grounding communities***

CR: What I hope will come out in the conference (***Token Communities Conference 8-10 June 2017, University of Warwick***) is that the tokens of classical Athens enabled democracy, because how do you run a democracy? You need pieces to give people to vote, to be paid for jury duty, to actually create a governmental system, and I think you find this repetitively throughout history. The power of tokens! And I don't know if you know Bill, but are modern day tokens creating very specific types of community or structure?

BM: Absolutely, just to take Bitcoin as it's something that people think about a lot right now. On the one hand, Bitcoin has a lot of similarities with these ancient tokens in so far as essentially it's an accounting



system, that's all that it is. There's a distributed ledger that exists on multiple nodes on a network, where computers - nodes on the network - are continuously updating the record of transactions, but really it's that record that matters. The record itself gets kind of manifested in the imagination that there are these coins, which there aren't right, they're just entries in this distributed ledger. But people need to have that sense of there being a circulating token I think, because that's what helps to stitch together the nascent community of people who participate in the system. It becomes almost, just like with your rulers in the past (nods to Denise Schmandt-Besserat), a kind of legitimation device for a warrant for that community, it proclaims its existence and proclaims in a way its virtue, by virtue of this token that goes back to an accounting system. So to me the really revolutionary thing here, whether it's the ancient tokens or something contemporary like Bitcoin, is that we see systems of accounting really grounding society by being the thing that makes possible and animates broader social cohesion, broader social constituencies for bringing other people in, in the way the Athenian tokens did, and also having rules built into it for participation - everybody needs to enter something in that ledger, everybody needs to circulate the token, or the tokens need to be passed on to warrant a transaction, which then warrants the whole thing that undergirds all of society.

So for the project that I'm currently doing on distributed ledgers I've been thinking about whether we are at the beginning of a revolutionary shift in how accounting is done; how do we think about other similar moments in the history of accounting? Say double entry and its connection to the slave trade as well as to the origins of capitalism 'quote unquote', or [go back] to the Neolithic and the transition to settled agriculture and the kind of shift in chieftainship that Denise has just talked about. So then for me the question is what are the implications for ideology, for leadership, for community today, given these shifts in accounting. And you don't have to go to Bitcoin, you can also just talk about credit cards, or you can talk about any other kind of non-state based payment system and what it does by creating closed networks that require someone to opt in to start playing the game, the way Bitcoin does. At the end of the day the state system is still the dominant one, it's still the one that has got prime position in the pyramid of money. Even with Bitcoin the reason that everyone is so excited about it is because it can be converted into lots and lots and lots of dollars, so the state system still is there.

But I think that this kind of work that Denise has done helps us then think about state money itself and how did state money arise out of such systems of accounting, how did the state or state agents basically insert themselves into what were essentially prestige economies, and require



the return of their own token as a form of tribute, as a form of loyalty in the extension of their own sovereignty. And to me that's a transition that is fascinating: to think about the transition from small urban centres using tokens, and eventually using tablets, to bigger amalgamations that started using other forms of now materialised money. One thing that always fascinates me is that everyone talks about now the dematerialisation of money, but then you think, you look at human history and lets just start with 6000 BC until now, you only have material money from about 1000, 600 BC, until now. That's itty bitty. If you have a timeline, that's such a tiny little amount of time compared to back 6 millennia, so our own period of material money is really just a brief interregnum in a wider history of dematerialised accounting and reckoning systems. It's the whole old anthropological thing of just trying to imagine all these alternative possibilities that have been out there that we barely can even think about because all of our economics, all of our political science, all of our philosophy is defined by the same period as physical tokens of money. But there was all this stuff before, and there'll probably be all this stuff after if the world continues to exist.

DSB: From what you said, what struck me most is at the present time it is only the records of the transactions, and for 400 years, the first writing was also only that.

BM: Just transactional record keeping.

DSB: Three gold and three sheep, that kind of thing.

BM: Yeah. In the beginning was the receipt!

DSB: So we started the same.

BM: And it fits, because it also puts all these things that Denise writes about, that are so inseparable, of writing and reckoning, the development from concrete number of abstract number, all completely crystallised in this moment when the tokens go from individual things I count out to you to things that I impress on the clay. And it's like boom something happened right there, something huge happened right there. And then from the individual impressions, like five sheep, to the idea of fiveness that applies to anything, not just five sheep. It's such a huge type of revolution. How do we think about that?

DSB: And it is happening, the tokens and writing are happening in different parts of the brain, as I considered. So that is then bringing in a new part of the brain to function.

### **Connectivity and the spread of token technology**

DW: I think that Bill might have touched upon this a little bit, but Denise can you comment on the way that the tokens became systemised - how did everyone realise that *this* (token or sign) symbolised the same thing, or was it not quite as widespread as that? I'm just thinking how at the moment we have language and writing all over the world, but they're different, and not everyone can understand in the same way.

DSB: Well, I was famous in my class for saying 'I wish we could know', but when you have the first tokens in Syria in 9000 BC they are already in Iran [*Denise makes a psht sound to indicate the speed with which the tokens spread*]. That part you cannot catch. It has gone [*Denise clicks her fingers*]. You have the wave of farming, and the idea went *psht*. And it was a whole package. It was the idea, okay, of farming, of planting grain, it was the tools that go with it, it was the tools to prepare it, to prepare the food, and the tokens were there. And it is a package that went so swiftly, that you have no idea. And the first people who countered my study, they said 'it is impossible to have tokens (in this way).' Yes, it is possible, it was. But it seemed incongruous that it is not only the object but obviously the system that goes with it, and you are not able to know. I would say, but I would never put it in writing, maybe - along with other Neolithic developments - tokens started in Syria and went east. But there is no real possibility of knowing.

BM: You can imagine that because of the seasonality associated with agriculture that people.... well I imagine something like: 'Alright we just did the harvest. Tokens, tokens, huh, what am I gonna do now? Well there's nothing really to do, I'll just go up the river and see what I can find.' And then you meet other people and you say 'Hey we do this thing down there', and because of the seasonality associated with agriculture there are different kinds of time available to people both to come up with reckoning systems and to disseminate them. I'm just making this up, but that's always how I imagined it.

DSB: But with everything, every novelty, obsidian, etc., there are circles of nomads, and that must spread things very fast.

BM: That's interesting, so there's existing pathways, almost an existing infrastructure.

DSB: Yes.

CR: But how fast did it go? I know with the invention of coinage it's fifty years [to spread across the Mediterranean], extraordinarily fast, and it's the existing networks. It's astounding when you think about it, fifty years! So it would be interesting to know how fast these networks operate.

DSB: (*shrugging*) So the seasonality, I see that. Farming spreads. In the Near East the winters are harsh, you have to store, and I think this is what needed to be managed. So the extraordinary thing is humans sharing food. The hunters and gatherers share food. The hunters come back to camp and distribute, and there is a tradition that 'mother in law gets this, brother gets this', etc., and there is no discussion and you don't need to count because it is 'one, one, one, one'. Okay, when you have farming they still share. There is communal food storage and it is the community that store together so that during the winter months everybody survives. The weak and the strong have their chance to make it to the end of the winter. Sharing food in the Palaeolithic period is easy, but then the tradition to share is there, very deep, and the farmers continue it, but it becomes very difficult. You have to plan the harvest, you have to harvest, you have to have the silos ready, etc. and that is what needs to be calculated. That is where tokens come in, to manage the communal resources. And those people who are going to manage the resources have tokens to keep track of whatever comes in, whatever comes out. It's always clear. And so this is I think the creation of tokens, for sharing. And I like this notion that humans always have shared. It is extraordinary, but then it becomes very difficult. Today we still share - the roads and the policeman, etc.

BM: It's an important point, because it points to the contemporaneous rise of something like administration, and the administrative state, which now is the roads and the policemen and other stuff besides.

### ***Tokens, memory and the extended mind***

CR: You mentioned briefly that in a sense tokens enable particular types of thinking and cognition, and I know you're familiar with the work of Malafouris and the idea that the brain in a sense can reside outside the body (***MET or Material Engagement Theory***). Do you think that the tokens were in a sense an extension in this way?

DSB: Yes definitely. That has been an important point.

BM: This goes to Keith Hart's point about money, that money is essentially an external memory device, and that again we get caught up in the stuff of money just because of the period in which we reside, but really it's this kind of external memory system that is what money does for us: an external memory of all our relationships and transactions and credits and debts with one another.

DSB: And that is the way it can pass from one to the other. If the chief dies and he has all his tokens there, somebody who knows the system picks them up.

DW: We were wondering about the idea that objects have biographies and lives of their own to some extent. Quite often you find money that has been appropriated for another use, like pierced Roman coins. Is there any evidence that tokens are being used in this same way?

DSB: No, never. It is in my mind of course, tokens are only for administration, nothing else. They are not for trade. I'm constantly quoted about trade, but I have always said it is *not* trade, it is administration. It is taxes really, it is how much everybody must contribute. And it is interesting that until the first cities, until Uruk, tokens represent only farm products, mostly cereals, and oil etc., and immediately after cities tokens represent what is made in workshops - textiles, honey, bread, that kind of stuff. Tokens change from twelve shapes to some 300. For some we don't know what the shape represents, but those we can recognise are mostly textiles, or the raw material to make those things: metal, wool, this kind of thing.

### ***Current trends in token studies: counting, abstract number and the human body***

CR: Where do you see token studies going? What's next?

DSB: So Niloufar is doing tokens (Niloufar Moghimi, a PhD student at the University of Tehran, invited to Warwick to speak at the conference, but denied a visa by the UK Home Office). She has done her Masters thesis on tokens at one site. And then Lee (Karenleigh Overmann) has done the magnificent thing of continuing my catalogue (**Schmandt-Besserat, 1992**). She has added 2000 or more tokens I think. She has put it - what I could not do- on the computer. She has it all on a spreadsheet now, and we discussed yesterday that she will try to put it together with all of the tablets etc. and then put it online so that it is available to whoever wants it. And not only available to whomever wants, but all the archaeologists who find tokens can put them on there (i.e. contribute their finds). So people can do it by themselves. She's a student of Lambros (Dr Lambros Malafouris), so Lambros put her on the token catalogue, and you will see she has gone beyond my work. She's focused on cognitive archaeology etc., and we disagree very, very nicely. I find it interesting that we are dealing with the same things and coming to different conclusions, I think it makes it healthier.

BM: I want to know what the basis of the disagreement is now!

DSB: Concrete number. She thinks number is abstract from the Neanderthal period. She has a *Current Anthropology* article (**Overmann, 2016**) and we discussed it yesterday. She sees abstract number from the beginning. She sees hand counting as very important, as a stage of counting. I have always heard that once you count you know you have 20, not the other way around. What is interesting is that I was working very hard on numbers in the 80's, and I am the product of that literature, and she is a product of the 2000's literature, and in the meantime there was 20 years and a lot happened.

BM: I actually have a fondness for dactylonomy, which is the word for finger counting.

CR: Those are Roman tokens behind you (gesturing to a sheet on her office wall); this is Roman finger counting on tokens. And the Romans go the other way - they put down the little pinkie finger to start with as one, and then two, three. And then four is my favourite.

DSB: She'll (Karenleigh Overmann) love that.

CR: We have a video ('Roman finger counting', <https://www.youtube.com/watch?v=nkoOOq8en04>). And we only have the full representation of Roman finger counting on tokens; it's the tokens that tell us how the Romans counted on their fingers, and we can actually reinterpret now a lot of other imagery.

BM: Can you then connect it with other technologies or not? My example is Luca Pacioli who is considered the father of double entry book keeping, also developed a special finger counting system, which I can't do (described in ***Summa de arithmetica, proportioni et proportionalita, Venice 1494***). It's amazing how people do this; it involved moving the knuckles.

CR: I think it's inherited, I need to check, but in the middle ages certainly it's inherited from the Romans, the finger counting, *le comput digital* (checking this reference a week later, the Roman system did influence finger counting in the Middle Ages, although six is conceptualised differently, and many of the gestures used might have been taken directly from Roman bone tokens, **Alföldi-Rosenbaum, 1971**).

BM: Pacioli's thing is if you turn it this way (*turns his hand sideways*) it's what you were doing on the abacus, because he was trying to rationalise it to make it fast and easy.

CR: That is fascinating.

BM: And with dactylonomy, even today there are so many different ways of doing it. All you have to do is get a person from China to do it, and I forget how they do it, but it's completely different.

CR: Yeah, to me the idea of putting your little pinkie down for 'one' is completely insane, and I still can't do it.

BM: Using individual knuckles too is crazy, I can't even move my knuckles that way.

CR: Ok, on that note, thank you very much, we'll leave it here.

## **Conclusion**

The above discussion demonstrates the continued use of tokens to facilitate different types of accounting and distribution, from the Neolithic to the present day. Tokens, in turn, contribute to cultural, societal and cognitive developments - the invention of writing, abstract number, or differing systems of governance. This interview took place just before the *Tokens: Culture, Connections, Communities* conference, and the next three days of discussion underlined much of what was said here. The role of tokens as externalised memory devices was particularly apparent: tokens might serve as mementoes of events or loved ones, as a record-keeping media in different distributive systems (at familial, local, regional and state levels), and, of course, in accounting. Connected to this is the role of tokens in creating, representing and consolidating different social hierarchies. Tokens also act in ways that are similar to money, but with one key difference: tokens are largely single use items (including the Neolithic tokens discussed here), whereas money is designed to be used repeatedly as it circulates from person to person. The discussion between Maurer and Schmandt-Besserat demonstrates just how timely the study of tokens of all varieties is: suddenly the 'new' Bitcoin and other payment media become part of a much longer tradition of systems without material money, dating back to the beginnings of human civilisation. As individuals seek to create different communities and exchange systems based on tokens (e.g. the 'DAO' discussed by **DuPont**), a historical understanding of the role and power of these objects is ever more necessary.

## Acknowledgements

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## List of Illustrations

Figure 1: *How Writing Came About*, with model prehistoric tokens on top.

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# In Conversation with Professor David Greenwood

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**Abstract** *Professor David Greenwood offers insights into the challenges and current and future development trends in the automotive industry. Based on his broad experience in this sector, Professor Greenwood discusses a wide range of topics, such as global and UK automotive industry markets, emerging technologies in energy storage and its impacts on the environment and vehicle performance, and autonomous and future vehicles.*

Keywords: automotive; UK automotive industry; energy storage; battery; battery material; recycling; environment; autonomous vehicle

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## Introduction

Professor David Greenwood leads the Advanced Propulsion System team at Warwick Manufacturing Group (WMG) - the University of Warwick which covers a wide remit of related areas within Energy Storage (Battery Systems); Energy Conversion (Electric Machines; Power Electronics); and Energy Management. He leads WMG's activities as the Advanced Propulsion Centre's Electrical Energy Storage Spoke, and also provides academic leadership for the development of R&D activities within the National Automotive Innovation Centre.

Professor Greenwood is a Board Member at the Low Carbon Vehicle Partnership (LowCVP) and a member of the Automotive Council Technology Group. He is also a member of the EPSRC's Energy Scientific Advisory Committee and the Advanced Propulsion Centre (APC) Advisory Board.

Professor Greenwood joined WMG in 2014 from Ricardo UK Ltd where he was Head of Hybrid and Electric Systems, leading advanced technology projects in passenger cars, defence, motorsport and the clean energy markets. Strategic projects at Ricardo included the preparation of automotive industry technology roadmaps and research priorities for the

NAIGT (New Automotive Innovation and Growth Team), TSB and Automotive Council.

## **The interview**

*Sina Shojaei (SS):* How do you see the status of the UK automotive industry and its outlook compared to the global competitors? I would also like to know your opinion about the current level of investment in research in the UK and how this investment contributes to the development of the automotive industry.

David Greenwood (DG): Let's talk about the industry structure first. If you look at the way that the global auto industry is structured, it is global industry, but there are relatively few products that are genuinely sold across the globe. So what you tend to see is that there are European focused products, US focused products, and you find products that are focused on Asia for instance. They have different drivers because the governments and the economies in those areas have different situations. So for instance the US automotive industry has been focused a lot on air quality since the 1980s, and much less on fuel consumption. Even historically, fuel consumption and CO<sub>2</sub> were something that the US came to relatively late. So this, combined with the driving patterns of the US customers and the ability of the US customers to afford more expensive vehicles has driven relatively large vehicles which are not particularly good on fuel consumption, but are actually very clean on emissions. And so you see petrol vehicles with three-way catalyst for most of the US. If you look at Europe, the challenge has been different. Here, we've been focused on a mix of air quality and energy/ CO<sub>2</sub>/ climate change. And so in Europe, up until relatively recently, you saw a trend where the regulators seek to balance those things. So we saw regulations that allowed for Diesel engines to come into cars, because they had a benefit in terms of CO<sub>2</sub> and fuel consumption, even though they were not as good as petrol engines in terms of air quality and emissions. And that was a conscious decision by the regulators to do that, in order to balance air quality against fuel consumption and CO<sub>2</sub>. So where the UK fits into that is that the mass market products that we produce are primarily made for Europe and sold in the UK and Europe. The UK has a thriving auto industry. We make around 2,000,000 cars every year, and about 80% of that is exported. We also make about 2,000,000 engines every year, and a lot of that is exported to go into cars across the world. So it's a very large part of the UK economy, and it is one of the few parts of the UK economy which is making good money from manufacturing. The sort of companies that we have in the UK are those that are in thriving sectors. We have very good luxury car industry - if you look at JLR, Bentley, Rolls

Royce, Aston Martin, those are global brands that don't sell huge volumes but they do sell at higher margins. So, they form a very profitable part of the industry. In addition to that, we have engine manufacturing, not just for those brands, but also for companies like Ford, who are making diesel engines here that get shipped all over the world. Besides, we have assembly plants here for companies like Nissan, Honda, and BMW. So, an enormous amount of economic activity is associated with the automotive industry in the UK. That is where we are at the moment.

What are the challenges? Well the reason we are looking at electrification technology comes back to air quality and CO<sub>2</sub>. Those are still the two drivers for electrified vehicles. The UK is up there with the best in delivering against that. Right now, the UK has the only operational automotive battery manufacturing plant in Europe, which is Nissan's plant in Sunderland where they make batteries for electrified Nissan Leaf. They also make the car which is then exported around Europe. So actually you can say that we are a leader in electric vehicles at the moment. Certainly, this is a market that is just starting to build. The sales of electric vehicles have gone from typically 1%- 1.5% of the auto market last year, to 4% of total sales last January. And that's quite significant because when you are selling to one percent or so you are typically selling to what is referred to as 'Early Adopter' customers. These are the people who are ready to go through a bit of pain in order to have the benefits and kudos of being able to drive something which is a new technology. By the time you get to 4% you are selling to 'Early Majority' buyers - real people who need real cars that work for them practically and economically. So, this is an indication that we are reaching a Tipping Point. I think that the January figure was a bit of a blip due to sales intensive and so on. Nonetheless, the fact that we are in a situation when we can regularly see a monthly figure of over 2% is really quite significant.

All of the major brands are bringing forward electric vehicles now, including the UK brands. Obviously Nissan was there already with the Leaf. Now you see Jaguar launching the iPace, and if you look at other companies that are building here, at the moment Ford's electrification strategy isn't centred on the UK, and neither is Honda's. But we do have the ability in the UK to be building and supplying parts to their vehicles, as and when those companies are ready to move forward with them.

SS: Any other challenges?

DG: Well the main challenge is the cost of the vehicle. If you consider what goes into an electrified vehicle, clearly it's great in terms of its ability to remove CO<sub>2</sub> from the tailpipe, and reduce NO<sub>x</sub> emissions inside cities. The challenge we have is that the components that you need to fit into the vehicle are much more expensive than the components of conventional vehicle. As a bit of a comparison, to make the engine with its control system and its after-treatment system for the exhaust, it typically in the region of 1000 to 1500 pounds for a traditional car today, the battery alone, for an electric vehicle, is something between 6000 to 10000 pounds. So you can see there is a massive difference in the cost of the hardware that's needed. Considering that, the battery makes up 50% or 60% of the materials cost of an electric vehicle. Many consumers are just not in the position to be able to afford that technology yet. So the biggest challenge we have is making the technology more accessible, by making it cheaper.

Second to that is then making vehicles that have enough electric range to suit most people's journeys. And also building the infrastructure needed to charge those vehicles. So there are several things that all need to keep pace with each other for this to work. But the good news is that there are a lot of activity to make sure that happens. And that's happening between government and the industry, it's not just reliant on one of those two to make it happen.

SS: It sounds like you see the battery as the main challenge.

DG: Yes, at the moment definitely. It's still the biggest cost, the biggest technical hurdle. Second to that I would say it's the power electronics. And, that's about making them cheaper, lighter and easier to cool. Then next to that I say it's electric motors, understanding how to make electric motors at high volume in the quantity that we need. Here at WMG we have active research teams working on all those major technologies.

For batteries, we have a large team. Different people are leading different parts of it. We have Emma Kendrick who is leading our electro-chemicals materials group, which is looking at new electro-chemistries for batteries, Rohit Baghat's team who are looking at electro-chemical engineering, including how to build battery cells and how cells perform in different circumstances. We have Mark Ellis's team who are looking at battery systems, including how to use battery cells in a manufacture-able battery pack which can work in high volume production. In power electronics, we have Richard McMahon, who joined us from Cambridge, his team is looking at wide-band-gap semi-conductors, which includes

how we can make power electronics faster, smaller, lighter and cheaper. And a group working on electric machines, led by Juliet Soullard and John Wale, who are looking at the design of an electric motor, the materials you use and the manufacturing process – and in particular, how they all conspire to give you a machine with a particular quality, durability and cost.

SS: Will the Lithium ion technology continue to be the backbone of EV batteries, or will that change?

DG: In the automotive industry, I think li-ion is going to be with us for at least the next 8 to 10 years, and the reason I say that is to take a chemistry from laboratory scale through to something which you could buy in a car takes about that period of time. If you look at the development path, first you have to make the chemistry works in the laboratory at the gram scale of material, looking at half cells. To reach the point that the chemistry works can take a year or ten years or may never happen, so predicting that bit of the process is virtually impossible. But once you've got to that point, to go from there to the point where the material works at large scale takes around 3 to 6 years. At the end of that you have a cell with a new chemistry, which takes 2 - 3 years for the car companies to make battery pack with, and prove it is safe and durable. Overall that means is that it is very unlikely that there will be a car sold in the market, within the next 8-10 years, that uses a battery technology that we don't have visibility of in laboratory today. At the moment, we don't see anything which has reached that point. So right now, I can say with some confidence that Li-ion is going to be with us for that period.

What I can see is that there are some very promising technologies coming along which can surpass that in the future. The ones that we are particularly interested in here in at WMG are the Sodium Ion chemistry, which works a lot like Li-ion, but using a Sodium-ion rather than a Li-ion as the charge transport device, and the advantage of that is that the sodium material is much cheaper than lithium. You don't end up with a battery that is quite as high in performance as li-ion, but it's much lower in cost. And as we start to move from a position where electric vehicles are a few percent of the market to a position where they are 50% or 80% of the market, we will need those low cost moderate performance batteries. Today, we can make 600 horsepower supercharged v8 engines – and they are great, but if you look at the cars in the carpark outside, not every car has that. Because 99% of the people don't need it and aren't prepared to pay for it. Most people are driving around in cars with a 1.0 Litre or 1.2 Litre engine, because actually that suits our needs better

and it's cheap. I think that sodium ion battery has a very interesting future in a similar manner.

SS: I read somewhere that Li-ion resources are limited as well. Is that true?

DG: Not really. If you look at the materials that go into a lithium ion battery, an awful lot of it is copper, aluminium and graphite, which are all industrial products today. Yes, we need a lot of it, but they're not resources that are currently scarce. Regards the lithium material itself, only about 4% of the mass of a battery pack is lithium. As a material, lithium is relatively abundant, particularly, in the northern parts of South America, in places like Bolivia, Chile, and Argentina, there are quite big reserves. And in terms of abundance, there is easily enough to be able to provide 20 to 30 years' worth of automotive manufacture. But the challenges are going to be how fast that industry can develop. There will be times at which we get out of pace, when the automotive demand moves faster than the Lithium manufacturing can build up, and vice versa, there'll be times when there will be more lithium in the market than the automotive industry needs and vice versa - so, you'll see some price volatility on lithium in the future. It might become a commodity market. The key point is that at the moment we don't have any good processes to recover material from used batteries, so the challenge that we have is that whilst we are OK for now, if we don't develop a process by which we can recover that material and re-use it, we're going to run into a problem in 20 years' time - that we've taken what was an abundant material, and lost it. At the moment, if you look at the route by which those batteries are disposed of, the lithium ends up getting incinerated and we can't afford to do that forever. So, we need to develop processes to recover those materials on an industrial scale.

SS: I'll come back to your point about recycling batteries, but before that, is any of the material used in motors and power electronics scarce?

DG: Yes, the magnets. The main materials that we use are copper and steel. But for many of the electric machines that we build we use rare-earth magnets, typically using neodymium or samarium. The issue interestingly is not with the scarcity of the material, it's with the economy of producing it. So at the moment, the rare-earth industry is dominated by China, and in various points in its history they have introduced trade barriers in order to maximise their revenue. So we have seen a lot of price volatility in rare-earth magnets, and by volatility I mean multiplying the price by a factor of 20 in the space of less than a year in some cases. That is very difficult for the industry to deal with so,

there is a big effort at the moment, looking at whether we can move away from rare-earth material in designing switch reluctance and induction machines - or if we can move to cheaper, and more readily available material like ferrite and still get similar levels of performance.

SS: Going back to the issue of recycling, how do you see the recycling technology progressing, in terms of batteries specifically?

DG: We have projects at the moments on how we should recycle batteries in particular. If you imagine, every electric vehicle is going to have a battery that weighs around half a ton, and inside that there are valuable materials - although we have spent the last five years to take out as many of the valuable material batteries as possible, in order to make batteries cheaper. What that means is that if you are a recycling company, there is less valuable stuff in a battery. And actually at the moment the cost of getting to the material is significantly higher than the value of the materials themselves. So the net value of a battery at the end of its life is currently negative. It will cost about 500 pounds in landfill taxes, to dispose of a battery. Even though it has these materials inside that you might think of as being valuable.

SS: There might be some environmental incentives that encourage that recycling

DG: Absolutely. If you look at what's happened to the car industry, there's regulation in place now called the 'end of life directive', that says about 95% of the vehicle needs to be recyclable. At the moment, that doesn't apply to batteries in exactly the same way, and we have no way of doing it. I think what we will see is a combination of economics and regulations starting to drive towards that. If you look at the battery packs are designed today, they are really not friendly to the recycling process. A lot of car manufacturers are welding the packs together, and they are gluing things in place. The physical structure of the battery has many tiny layers, only tens or hundreds of microns thick, with the materials distributed through those layers - so, actually getting to those materials to recover them is really hard. And at the moment we just don't have the processes to do that. The only batteries that are economically recycled are lead acid, because it is easy to get to the materials, and typically things like mobile phone and laptop batteries are recycled, because there are a lot of cobalt in them - and cobalt is expensive, so there are processes for extracting the Cobalt, but the rest of it is pretty much incinerated.



SS: The other question I had, and I was keen to know the answer to this myself is about fuel cells. Do you think there is a future for fuel cells in the automotive industry?

DG: I will say this one is relatively controversial. There are organizations who are still putting a lot of resources into understanding fuel cells for automotive. My personal opinion on this is that I don't have a problem with fuel cells themselves. I can see some good ways in which we could engineer fuel cells to be cost competitive with diesel engines, for instance, in the medium term. My biggest problem is not the fuel cell, it's the hydrogen that we need to run it – and I think that's the inhibitor to fuel cells for the automotive industry. To me it appears that as batteries have got better and better, they've been eating into the market that fuel cells were originally intended to target, which is the longer-range vehicles. You know it's expensive but you could buy a Tesla today with two or three hundred miles of real world range. And the infrastructure that you need to charge electric vehicles, whilst it does need a lot of money, the basic infrastructure is there, and it can grow with the fleet as the fleet grows, whereas there is no infrastructure for hydrogen. And most of the hydrogen we get today comes from cracking of natural gas, so it's not zero CO<sub>2</sub>. We could generate hydrogen from renewables, but if you look at the energy efficiency of the process of taking renewable energy from a wind turbine, electrolysing to make hydrogen, compressing it, transporting it, compressing it again to go into a vehicle's fuel tank, then expanding it, then running it through a fuel cell, then running through a set of power electronics, all the way to the motor and the wheels and onto the road, unless you are quite careful about how you do that you can lose 80% of the energy between extracting it from the wind and using it in the car. And renewable though it may be, I just don't think that as a society we'll be in a position where we can afford to see that level of energy waste. So, my personal view is that I don't think hydrogen fuel cells are the right answer for the car industry. I think there are some really good applications for fuel cells, but they are linked to network reinforcements and grids, as well as energy storage at relatively large scale. I don't think that we should stop work on fuel cells, but I think we should focus it on static applications. Perhaps the one area I would consider as potentially disruptive is that of the solid oxide fuel cell – whereby gas can be reformed on board the vehicle, and the fuel cell is tolerant to impurities – that way you use an existing refuelling infrastructure and eliminate some of the energy conversion steps.



SS: I know WMG has become involved with research on autonomous cars. I was hoping you can tell us a bit more about what that research entails and how in general you think the technology will develop in the medium term.

DG: Professor Paul Jennings is WMG's lead person for autonomous and connected vehicle. I very purposefully call it autonomous and connected vehicles, rather than just autonomous vehicles because very often when you read about vehicle automation, it jumps straight to autonomous vehicles, as though you can miss out all the middle steps and go from where we are today to a situation where all vehicles magically communicate with each other and drive without any intervention at all. The reality is that we have a transition to go through. Whether that transition is going to take ten years or twenty years is open for debate at the moment. What Paul's group is looking at is what the technology is going to look like at each of these steps - and understanding it not just from a technical perspective but also from a human's perspective. There are lots of factors that need to be considered around how people are going to interact with these vehicles – and that will be just as important to how quickly they are adopted as the sensors or algorithms that they use. You may have seen that Paul's group have a huge simulator here at WMG. It's referred to as a vehicle simulator but it's actually the entire world around the vehicle that is simulated, including the electronic environment. The simulator is in a Faraday cage, so we can hi-jack the GPS, the 3G or other electronic signals that the vehicle sees. In that environment, we can project a 360° photo-realistic view of a landscape that both the driver and the cameras on-board the vehicle can interpret. Obviously, we can't simulate the 3D environment as far as the Lidar sensor is concerned, because the sensor will recognise it's sitting in a glass fibre cylinder, but what we can do is compute the signal that the Lidar sensor would generate, and then inject that signal behind the sensor so the rest of the vehicle believes that it is in the real world.

SS: I understand there is an effort to introduce the UK as the global hub of developing autonomous vehicles.

DG: The UK is actually a very good environment to be developing autonomous vehicle technologies. The legislation that we have already is very helpful to allowing people to test autonomous vehicles in the public domain. Clearly, there are safety implications that need to be considered seriously, but the legislation and the regulation is open to it. The UK has also realised that it can have quite a big role in this. So there are discussions between the government and the industry on investing in the development environment that is needed for autonomous vehicles. That

environment covers a broad range of activities. At one end of the development spectrum you have completely virtual development where everything is on a computer, models working against models, testing control systems, and so on - with the benefit that you can achieve hundreds of tests per day, and you can test the same difficult scenario, say a crash, every couple of seconds. The downside is that you are not testing the real vehicle or the real system, so any mismatch between what is in the model and what is in the real vehicle can influence the result. At the other end of the spectrum, you can have real vehicles running on real roads, in which case you need to drive millions of miles because 99.9% of that driving is really boring, nothing interesting happens, the vehicle keeps control, and there are no issues. The fraction of a percent that you are interested in, what we call the 'corner cases', are where some particular set of circumstances comes along that really forces the autonomous system to work hard. So what Paul Jennings and his group are looking at is how we should fill that gap between completely virtual and completely real - and that is where their simulator comes in because you can use it to re-create real situations very quickly and you can then test them against the real vehicle. The vehicle believes it is in a real world and if we want to generate a difficult scenario, like a crash or a pedestrian stepping out in front of the car, we can do that many times per day without any risk to the person or the vehicle, in an environment that allows you to get reliable data as well.

SS: How do you rate the investment in UK on autonomous vehicles, compared to other European countries?

DG: I would say perhaps we've been a little behind up until now, but that said we still have some very high quality stuff happening in the UK. If you look at the work that WMG does, or the work that Paul Newman is doing at Oxford University, there really is some tremendous quality activity in the UK. There is a dialogue going on between the government and the industry about a significant increase in the amount of investment in the autonomous vehicles research in the UK. So it has been recognised that we have a role to play and that we need to increase the current scale of activity.

SS: How do you think Brexit and possible change in US policies affect the future of the UK and global automotive industry?

DG: The UK has benefited from the ability to access markets in Europe. Cars made in the UK are sold in Europe with no trade tariffs. There is free trade of components going forwards and backwards. And if you think

about the process of building a car, it's not the case that everything gets built in one country and gets transferred to its point of sale. If you tracked all of the components that went into a vehicle, they come from all over the world, come together in the assembly plant, and then the vehicle will travel from there to somewhere else. In some cases as you go from nuts and washers to sub-components and components and systems, these bits will have travelled around Europe and crossed borders many times in the process. So one of the things that would potentially impact the car industry negatively is if we saw trade tariffs that added friction to that process at every step. Because those tariffs will then potentially end up getting applied several times before you get to the final product. So, I guess one of the concerns that the UK automotive industry will be tracking is that given that we export a lot of our cars at the moment, how Brexit could impact on that. My personal view is that we'll find a way through that. I don't know what the answer is, but given that the UK is quite a large car market for the European manufacturers as well, I think there is probably a mutual benefit to get some sensible arrangements. The worry is that the car industry is a very important one for the UK and may be used as a negotiating chip. So I'm more concerned about the uncertainty leading up to the any form of agreement, than I am about what the agreement is at the end of it. The good news is that the UK government recognises the concern. And if you look at the policies that are being rolled out at the moment, things like the Industry Strategy, the government is actively looking to step up and overcome some of those potential barriers and support the industry in the right way.

In terms of the research activities, we have benefited tremendously from the mobility of labour, not just in Europe, but around the world. If you look around the Warwick University you realise that we are a very diverse community. A large number of people come from the overseas. In the short-term, I am worried about the impact of Brexit on the ability to recruit good European staff and students. We'll see what comes about at the end. We already successfully recruit people from countries outside of Europe. And once we have the arrangement in place I am confident that we'll be in a position that we can recruit people from inside Europe too, but it's the uncertainty of what the arrangements might look like that can make life difficult in the short term.

SS: What about possible changes in US policies?

DG: I am concerned about the direction that the US politics could go to and the impact it might have on the automotive industry. There seems to be a difference of opinion between the political and scientific communities which is concerning. What is very interesting to me looking

at the rhetoric at the moment, is that up until now, things like air pollution and fuel consumption standards for the US have had to be driven by the governments, because consumers didn't care enough about them to make those choices themselves. So consumers elected politicians who set up measures for cleaning up the air and for improving CO<sub>2</sub> emissions and preventing climate change, but the consumers were not actively involved in setting up those measures. So up to now it was a politically driven process. What you see at the moment seems like a polarisation of opinion. There is a group of the public who say all of the concern about CO<sub>2</sub> is politically generated, is not real, so let's carry on burning oil and have low cost products for the economic benefit that it brings compared to the countries that follow the CO<sub>2</sub> reduction agenda. Equally though, there is public voice which has not really been there before, which is saying that we do believe the climate science, we do believe that we should maintain the quality of clean air that we developed since 1980s. The shift in the political discourse may result in a shift in the public discourse that makes this consumer driven, rather than politically driven. I am watching it with great interest. In some ways I am worried about where it could end up, and in some ways optimistic about the fact that it has generated a public debate that has not been seen before. If we got to a situation where the US government was to adopt radically different standards to the rest of the world, the US is already a big-enough market that there are vehicles that are designed to US standards. It would affect those vehicles and it would affect the CO<sub>2</sub> and air quality standards of those vehicles - but I think the knock-on impact on Europe and Asia may be surprisingly small because at the moment I don't see Europe or Asia stepping away from the fact that air quality is a concern, and that CO<sub>2</sub> and climate change remains important. So, I'm not too worried yet about seeing that as a global knock on.

SS: Thank you very much Dave for your time. It was a very interesting discussion and I think we touched on a wide range of topics.

DG: Sure, I hope the readers will find it useful.

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# The Stillness in Movement: A Buddhist Reading of *Ash-Wednesday*

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**Abstract** *Commonly seen as a religious poem that reflects T. S. Eliot's conversion to Catholicism, Ash-Wednesday demonstrates intensively the poet's religious experience, especially the union of the spiritual stillness and the movements in time which verges on mysticism. However, such extraordinary experience can be comprehended from the perspective of Buddhism. It corresponds with the Buddhist concept of suchness, which is further connected to religious meditation and the attitude of non-attachment in face of worldly life. It does not violate the speaker's pursuit for a kind of Christian salvation, for it concerns more the process and the way to achieve the destination than the destination itself.*

Keywords: T. S. Eliot; *Ash-Wednesday*; movement; Buddhism; timeless; divinity

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Compared with T. S. Eliot's early poetry, there is a new phenomenon in *Ash-Wednesday* (1930): the introduction of the element of divinity as the imposing other. The intrusion of the omnipotent other is willingly called for and accepted by the speaker, which any earthly activity or feeling must defer to for a new and everlasting meaning. However, the new element does not replace the personal sensibility of the speaker. Rather than questioning all earthly values, the poem focuses on presenting the speaker's state of mind in meditation on the divine figure of the 'Lady', especially in relation to the reality of worldly life. Thus the reader is shown the tension between the spiritual stillness that signifies beatitude and the restless movements of the ego between different distractions. Although the speaker does not eliminate sensuous passions, the meditative mind he acquires in liturgical ritual enables him to appease his ego, which is close to the Buddhist doctrine of non-self. In other words, he achieves spiritual stillness in the world of movement, which corresponds to 'the still point of the turning world' in the first section of *Four Quartets*, 'Burnt Norton' (Eliot, 2015: 183). This article argues that such stillness in movement is highly similar to the Buddhist 'suchness' of

life, which denotes the natural state of being. What is more, the explication of the nature of suchness in Buddhism can also smooth the understanding of how, in *Ash-Wednesday*, the ascetic desert is a potential field of paradise love. From the perspective of Buddhism, the two seemingly distinct spheres ultimately occupy the same plane of existence. It is manifested in the speaker's private sensibility as the reality of the individuals in time, rather than the heavenly realm of timeless divinity. The final peace in God's will demonstrates itself as the tranquillity of the mind that reconciles the restlessly moving consciousness and the calming meditation on the divine. Although *Ash-Wednesday* is commonly regarded as a dominantly Christian poem, the state of being that the poet painstakingly displays corresponds to the ideal of Buddhist life. Besides, Eliot's formal studies of Buddhism at Harvard made him at least familiar with the Buddhist worldview (**Ghosh, 1978: 23**). It should be noted that the basic methodology of this article is not to argue that *Ash-Wednesday* is a poem promoting Buddhism, but to use Buddhism, especially the concept of suchness, to clarify the sensibility that amalgamates the material and the spiritual.

Existing scholarship notes Eliot's efforts to strive for a kind of reconciliation in order to attain spiritual peace, but the nature of that reconciliation is to be further explored. In *Poetry and Belief in the Work of T. S. Eliot*, Kristian Smidt interprets that Eliot's meant to 'reconcile the reliance on divine grace with the reliance on human effort' (**Smidt, 1961: 189**). In *Ash-Wednesday*, the use of prayer can be seen as such an attempt. When prayer becomes an end in itself – that is, it is not for any worldly purpose – it is the integration of inaction and action. It is an essential concept in Indian thought especially pointed out by Eliot in *The Dry Salvages*, by alluding to Krishna's admonishment in *Bhagavad-Gita*. The form of the integration in *Bhagavad-Gita* becomes the devotion and continual contemplation on Krishna, the one true God: 'His heart being unattached to outer object, he finds the joy that is in the Self' (**Nikhilananda, 1944: 174**). Its essence, the oneness of the two spheres (time and the timeless) is especially explicated in Buddhism. Cleo McNelly Kearns points out that the Buddhist assertion that phenomenal existence is not different from nirvana is 'to restore to the here and now its full dimension of importance', which is also the main focus of *Ash-Wednesday* (**Kearns, 1987: 109**). The here and now is the ground on which the speaker intuitively experiences the timeless with the aid of impersonal prayer. Eliot's emphasis on the here and now reveals his affinity with the Buddhist idea that nirvana does not lie beyond the world in time. However, in order to arrive at that intersection of time and the timeless, a process of spiritual ascent is necessary, so the speaker tells us in Section III of the poem. Such a process towards the union with the

divine is meticulously elucidated by St John of the Cross, who was regarded by Eliot as one of the greatest ‘mystics and saints’ (Eliot, 2005: 50). The main argument is that one should empty the mind in order for divine grace to descend. It is similar to Buddhist meditation, which insists on preventing the mind from being occupied by any concept. The major difference is in the goals they pursue. Smidt observes that in Eliot’s poetry ‘the Oriental view of spiritual discipline has been given great prominence and is juxtaposed with the Christian view of grace’ (Smidt, 1961: 189). It seems that in St John of the Cross, Eliot found an example of the integration of the two, which is to use spiritual discipline such as meditation to prepare the mind for divine grace. For Eliot, the best we can do is to be prepared. Further discussion about the difference between the mysticism of St John of the Cross and Buddhist meditation is in the reading of Section III. Moreover, there is also the tendency to view the process of preparation as itself an act inspired by divine grace. In other words, when the speaker abandons the covert desire to acquire divine grace and focuses on prayer, divine grace naturally descends on him, in his act of prayer. While he is in that meditative state of praying, it can be argued that he is in his natural state of being, or suchness. Both Hinduism and Christianity put overwhelming emphasis on the absolute reality of the one true God, but Buddhism stresses the efficacy of individual efforts, and plays down the role of a personified God. Eliot does not abandon the idea of an absolute God, but he does not go into theological reasoning about the features of God, either. Rather, his focus is essentially the same with Buddhism, namely the elimination of worldly suffering. The ‘eternal end’, as Paul Murray puts it in *T. S. Eliot and Mysticism*, is ‘ever still and always present’, but for the speaker whose physical existence is bound up to the flow of time, he himself can never become that end, nor is it his goal (Murray, 1991: 48). What is pursued is more a mind of ‘shantih’, with the kind of ‘Peace which passeth understanding’, the ideal peace that Eliot envisions at the end of *The Waste Land* (Eliot, 2015: 77). That is perhaps the kind of common wisdom Eliot sees in Christianity, Hinduism and Buddhism. He argues in *On Poetry and Poets* that ‘wisdom is logos xunos, the same for all men everywhere. If it were not so, what profit could a European gain from the Upanishads, or the Buddhist Nikayas?’ (Eliot, 1961: 204) This common wisdom that transcends the doctrinal difference between the three religions is close to what Murray calls ‘The real contemplative or mystical gift’. This is ‘not so much the ability to transcend the limitations and the horror of time – in order thereby to escape into the realm of the Timeless – but rather the grace and the strength “To apprehend the point of intersection of the Timeless with time”’ (Murray, 1991: 106). The following analysis argues that what Eliot apprehends is the stillness in movement, rather than either of them isolated. To read the poem from



the Buddhism perspective can help us better understand the oneness of the stillness and the movement.

The beginning of the first section implies that the speaker has turned more than once and the turnings bring him pain. 'I no longer strive to strive towards such things' shows that what should be prevented is the desire to strive, rather than the desire for any profitable outcome. The claim strikes at the heart of the issue: the appeasement of the ego, which is the root of subjective striving, is the ultimate solution to stopping the would-be-endless spiritual turning. Rather than personal efforts of asceticism, Buddhism emphasises more on ceasing any purposeful striving towards 'fascinations of objects of attachment' (**Warren, 1986: 172**). There is a general sense that the speaker resolutely moves towards a specific realm of mind where he can no longer move forward. The speaker cannot drink the illusory water because he does not hope to turn again to the path leading to the despairing nothingness. The Buddhist teaching of non-attachment also builds upon the idea that there is no consistent form in earthly objects, for they are only 'skandha', meaning 'aggregate' or 'a part', which exists only temporarily (**Williams, 1956: 1256**). A mind unattached with transitory things would not suffer from the pain of loss and disillusion. In the state of non-attachment, the mind rests in the protagonist's state of suchness, or his true self. It seems necessary to clarify the difference between the true self and the ego. As T. R. V. Murti puts it, 'Buddha replaced the soul by the theory of a mind-continuum, by a series of psychical states rigorously conditioned as to their nature by the casual law governing them' (**Murti, 1974: 32**). Such a mind-continuum is represented by the ego. On the one hand, Buddhism denies the existence of any eternally unchanged and independent entity and takes the ego as a psychological phenomenon, but on the other hand, 'tathata' or 'suchness' is asserted as 'the intrinsic nature of all things', and evolves into the idea of the true self (**ibid: 276**). The Sanskrit word 'tathata' implies etymologically 'in that manner, so, thus', and can also be translated as 'thusness' (**Williams, 1956: 433**). It does not refer to any specific object, entity, or form, but, bypassing them, points to their common state of being existent. It reflects what Nyanaponika Thera calls 'bare attention', when the mind 'attends just to the bare facts of a perception as presented' (**Thera, 1962: 30**). With bare attention, the consciousness notices things that come to the mind, but is not carried away. Thus the Buddhist true self refers more to a mode of perception than to self-awareness. That is to say, it is fundamentally different from soul or the egotistic self. And what the speaker strives for through religious meditation is the suchness of his whole being. The reason for renouncing the 'the blessed face' is probably that 'things are as they are' in their perfect suchness, and therefore there is no need to strive for the



blessed face or anything that plays the role of an object outside the subject (**Eliot, 2015: 87**). In this sense, what is really renounced is the egotistic efforts to pursue the vision of heavenly bliss.

The intellectual content in the third stanza corresponds to Buddhist suchness in relation to time and space. Seeing that 'what is actual is actual only for one time / And only for one place', the speaker '[rejoices] that things are as they are' (**ibid**). The observation points to the unique moment of the present in every instant, and the uniqueness of the time-space intersection bestows uniqueness to all things. That is to say, the suchness of things, or their natural state of being, is eternal, not changing with the movements in the flow of time. It is what the speaker can safely rejoice about, unlike the Romantic visions, and the rejoicing is related to not only the problem of stop turning, but also the ambivalent claim of 'having to construct something / Upon which to rejoice' (**ibid**). It shows that to hold on to the timeless suchness can help the speaker stop turning again, and be 'freed from the eternal cycle' (**Smidt, 1961: 145**). The way of holding on to it is also the way that enables him to rejoice. The need to rejoice upon some specific object reveals the gap between the personal and the divine as the impersonal, which can be bridged by some medium, or 'skilful means' in Buddhism (**Zaleski, 1994: 102**). It is analogous to the idea that the suchness of things cannot be grasped without their state of being and mode of movement in specific time and space. In other words, spiritual stillness manifests itself in movement, though not all kinds of movement are pregnant with spiritual stillness. It also reveals the vulnerability of the speaker as a mortal being – he can only rejoice at the suchness in things 'as they are' through some ritualistic act, which, as the rest of the poem shows, is the meditation on the divine Lady.

In order to be able to rejoice, the speaker has to not only 'renounce the blessed face', but 'forget / These matters that with [himself he] too much discuss' (**Eliot, 2015: 87**). That is to say, he has to return to his own state of suchness, his true self. The true self represents the wholeness of personal sensibility in the consistent response to the changing reality, with the help of which the speaker is able to, as Aelred Graham puts it in *Zen Catholicism*, 'simultaneously be holy or whole and [natural]' (**Graham, 1964: 33**). A Buddhist aphorism may better illustrate its significance: before one studies Zen, mountains are mountains and waters are waters; after he gains some relevant knowledge, mountains and waters are not simply mountains and waters; but after he has 'attained the abode of final rest', mountains and waters are really mountains and waters (**Abe, 1985: 4**). Coincidentally, the three stages of spiritual maturation seem to correspond to the three turnings of stairs in the third section. The first change of mind occurs when the protagonist insightfully sees the

emptiness of transient beings and sticks to the denial of their relative reality. The second change, which ushers in the ultimate peace, is the consequence of letting go even the idea of emptiness. As Masao Abe points out, '[mountains] and waters disclose themselves in their totality and particularity, and no longer as objects from our subjective vantage point' (*ibid*). Thus the mountains and waters finally become things 'as they are' in the speaker's eyes, 'actual only for one time / And only for one place' (**Eliot, 2015: 87**). The true self reins in the ego's tendency of differentiation, and maintains the continual flow of consciousness, preventing it from obsession with any particular movement or image.

If we take 'to care and not to care' as a paradox referring to a particular mode of response to reality, 'to sit still' may be extended to 'sit still and to move at the same time' (*ibid*: 88). Eliot's refutation that 'why should the mention of "sitting still" suggest a static conception of life' hints at the dynamic stillness embodied in movements (**Eliot, 2014: 648**). It suggests the general harmony that permeates one's actions in daily life. Whatever the action is, as long as it is in accord to the general harmony, it does not violate the true self. The 'now' is not a present moment that fades into the past, but rather the eternal present. It means that suchness lies in the here and now, regardless of the flow of time. In this sense, every moment contains the life-death paradox, and 'now' is also 'the hour of death' (**Eliot, 2015: 88**). Therefore, the speaker's praying at the end of the first section is a continuous act, or a state of being.

From the first section to the second, the self-conscious praying is replaced by a pervasive aura of serene objectivity. The musicality of the second section, especially the short lines that create a liturgical aura, makes the content flow more smoothly, and the speaker's over self-consciousness seems pacified. The presentation of a devotional mind and its natural manifestation of sincerity confirms a certain mode of existence. As John Kwan-Terry puts it, 'what was at first simply one's private experience comes to be confirmed and verified, and established as impersonal and absolute truth' (**Kwan-Terry, 1994: 132**). The confirmation points to the successful adaptation of a new way of life, realising divine values under worldly conditions. The relationship between the Lady and the Virgin is less important than the Lady's influence on the bones:

Because of the goodness of this Lady  
And because of her loveliness, and because  
She honours the Virgin in meditation,  
We shine with brightness. (**Eliot, 2015: 89**)

With the help of the meditation on the Virgin, the speaker elevates his love for the Lady to the level of beatitude, on the base of which he achieves the salutation of her, which in turn sustains the beatitude of pure love. The speaker finds in the lady 'the still point of the turning world', and the holy love of her enables him to see through the transiency of things that are bound to fall into 'oblivion' and 'forgetfulness' (**ibid**). The Buddhist interpretation of emptiness can help clarify the forgetting of the transient things. It does not mean the psychological loss of memory, but a kind of meditation in which one 'does not seize upon [images] as signs of realities that concern him', and thus 'his mind becomes undistracted' (**Conze, 1954: 138**). It is more the attitude of non-attachment towards personal memory than the loss of memory. In Buddhism, meditation is used to deepen the concentration of the mind, and help the practitioner achieve non-attachment. Meditative concentration, or 'samadhi', could mean 'skilful one-pointedness of mind', which Paul Griffiths interprets as 'a process by which the awareness is narrowed down from its usual wide spectrum to a specific single point' (**Griffiths, 1981: 606**). In the poem the centre of concentration is the Lady, and the meditation on her keeps the mind from distractions. In this process, the protagonist achieves inner stillness, while his vitality, or his ability to love, remains unharmed. Furthermore, the mediation directs his mind from objects that please the senses and thus his vitality concentrates more on the pure love of the Lady.

To proffer his deeds to oblivion is also an act of salvation, by ceasing any possessive desire behind all potential deeds. It corresponds to what Kearns discovers, that 'Eliot was particularly attracted to the denial in Buddhism of the substantive reality of [the] ego' (**Kearns, 1987: 74**). Such oblivion, while purging egotistic purposefulness attaining to the deeds, leaves the ability to love intact. The fruit of the gourd alludes to God's compassionate love for the people of Nineveh: 'Thou hast had pity on the gourd, for the which thou hast not laboured, neither madest it grow; which came up in a night, and perished in a night: and should not I spare Nineveh' (**Bible, Jonah 4:10-11 King James Version, cited in notes to Eliot, 2015: 743**). It seems self-contradictory to love the fruit of the gourd that grows and perishes so quickly, as the new gourds would experience the same fate. The speaker nonetheless offers to love them, which reveals his wish to acquire selfless and thus universal compassion. In this sense, to proffer his deeds to oblivion means that even though he knows the ephemerality of earthly things, he does not totally cut himself from them. It touches a delicate idea in Buddhism, that non-attachment is different from detachment. Non-attachment is 'seeing into the abode where things are in their suchness', rather than subjectively telling the self apart from other things with a mind of discrimination (**Suzuki, 1975:**

123). Non-attachment purges desires to pursue fulfilment and allows universal compassion, while detachment implies self-imposed asceticism and even callousness. In other words, for those who acquire such compassionate love in non-attachment, to live is to love. And the exercise of such love has no purpose but itself. In the faithful contemplation on the Lady, it becomes the perfect means to purge sensuous animal desire without injuring the power of compassion.

The first six pairs of paradoxes in the second stanza all present the double existence of the speaker when he is in meditation on the Lady, though he attributes the double existence to her, the 'Lady of silences' (Eliot, 2015: 89). They are different kinds of silence that people who are totally occupied with desire for earthly gains are unable to know. Similarly, there are also different forms of stillness, when it is incarnated in diverse actions or movements of personal life. To some extent, the mind is capable of sustaining tranquillity in dealing with tasks in secular life. In the meditation on the Lady, the distressed, torn, exhausted and worried people with disturbing memories can find the same kind of calmness and wholeness of the soul, achieve divine forgetfulness, and gain repose. The identification of the single rose and the Garden is the turning point after which opposites disappear, as they converge into the Garden. The garden persists because of the rose, and the existence of the rose can be discerned through the garden. The speaker seems to intuitively realise that for all the time the rose equals the Garden, and in meditation on the rose, the mind is already in the Garden. The language in this stanza creates an aura of liturgical chanting, and peacefulness pervades the lines, as if the speaker's mind enters the realm of the timeless. In other words, the soul is transformed by its willing meditation on the divine. As the pure love of the Lady is perhaps the only kind of love purged of desire for the speaker, all the worldly loves would ultimately wither or develop into the love of the Lady. It is the purpose of itself, as it does not have any demand on the Lady. The act of loving is already the destination. Therefore, it is neither 'love unsatisfied' nor 'love satisfied'; it is love all-time satisfying (ibid: 90).

Section III explains the basic scheme of the whole poem in perhaps the most intellectually clear way compared with the other sections. To ascend the spiritual stairs towards some kind of salvation echoes the spiritual progression described by St John of the Cross in his work such as *The Ascent of the Mount Carmel* and *The Dark Night of the Soul* (1991). For St John of the Cross, the major purpose of emptying the mind is for the union with God: 'to empty themselves of all their appetites in order to reach God' (Kavanaugh and Otilio Rodriguez, 1991: 119). However, for Eliot, behind the 'necessity for an absolute, impersonal authority' – to use Barry Spurr's words – there is a deeper need for the 'complete

submission and abandonment of the self' (Spurr, 2004: 46). After the speaker ascends above the distractions such as 'The broadbacked figure' and the 'music of the flute', the conclusion he arrives at is not a claim of the successful union with God, but the sincere confession that 'Lord, I am not worthy' (Eliot, 2015: 91). It can be argued that in *Ash-Wednesday*, the speaker's purpose of 'abandonment of all hope as is prescribed by the *via negativa*' is primarily to '[strip] himself of worldly attachments' which from the Buddhist point of view are the source of suffering (Spurr, 2004: 47-8). In an essay that compares the thought of St John of the Cross and the Buddhist idea of emptiness, Abraham Vélez de Cea points out that in the mystical experience of St John of the Cross, 'what is experienced is the beauty, the life, the grace, and the virtues of all beings in God, rooted in God', while the major purpose of Buddhist meditation is 'the abandonment of views of absolute identity in everything', in order to prevent the mind from being attached with any form of assertion (Vélez de Cea, 2006:141-45). The contemplation on the divine enhances the speaker's awareness of his own situation of existence in worldly life. Moreover, worldly attachments are outshone by pure love towards the Lady in meditation. Thus the speaker's spiritual progress, though it alludes to Christian mystical experience, aims at the intuitive knowledge of 'suffering and its cessation', which is the central teaching of Buddhism (ibid: 145). Earthly life is transformed into a purgatory where the protagonist purifies his mind of distracting attachments by discerning their hollowness. The purgatorial life is the double life of enduring unsettlement and suffering while asserting faith in the calm and eternal bliss. It involves the acceptance of life as it is, and seems to indicate that the purgatorial life is also the life of nirvana. The underlying serenity is similar to the Buddhist non-attachment, which refers to the 'nondualistic, nonconceptual abiding in the present moment' (Zaleski, 1994: 96). At the third stair, the speaker's mind seems to enter a stream of consciousness, as the key concepts and images are piled together:

Distraction, music of the flute, stops and steps of the mind  
over the third stair,  
Fading, fading; strength beyond hope and despair  
Climbing the third stair. (Eliot, 2015: 91)

Without the constraint of linguistic conjunctions, his mind intuitively jumps from one notion to another. It is as if in murmuring the speaker sees the nature of the Romantic visions, and as linguistic coherence crumbles, a new order of thought which is more concise leads him to his destination. The repetition of 'Fading, fading' not only indicates the

fading of the tempting visions, but also the fading of the subjective desire to summon them from memory. To use P .S. Sri's words in *T. S. Eliot, Vedanta and Buddhism*, that is the moment when the speaker feels that 'the seer and the seen are both ephemeral' (**Sri, 1985: 17**). Only devotional prayer is real. Now what is supporting him to move forward is not desire, ambition, vanity, or any other kind of worldly motivation, but the 'strength beyond hope and despair', which is generated in the meditative mind that restores the state of suchness (**Eliot, 2015: 91**).

The focus of Section IV is on Eliot's own version of an earthly paradise. The calmness of the scene seems to have a Buddhist flavour, referring to the speaker's reconciliation with the world. It witnesses the internalisation of the intellectual content of religious belief into personal sensibility. Only after the soul is transformed, can it sincerely utter a voice qualitatively different from the previous one. 'Between' is perhaps the most important word in this section. It witnesses the three major changes of the scenario: from 'who walked between the violet and the violet' to 'Here are the years that walk between', and finally to 'The silent sister veiled in white and blue / between the yews' (**ibid: 92**). They indicate a never-ending process of spiritual transition, which connects the flowing of time and the eternally fresh present. By focusing on the here and now, the speaker's mind is not carried away by memories or expectancy about the future. The act of talking 'of trivial things' matters more than the trivial things themselves (**ibid**). Similarly, that the figure 'walked among the others as they walk' is more important than the identities of the others (**ibid**). In every seemingly trivial act of daily activities lies the secret of nirvana, when the mind rests in 'the sphere of neither cognition nor noncognition', which means for the protagonist to remain unattached while experiencing daily activities (**Griffiths, 1981: 610**). The poet, by putting the Lady in the peace of the daily life, creates the aura of transcendental calm. It confirms what Smidt says 'the perfect efficaciousness of human effort [...] in all Oriental asceticism' (**Smidt, 1961: 188**). The Lady acts as others act, but her grace pervades her acts, and because of her the daily becomes timeless. All these happen in the speaker's prayers about and mediation on her.

The lady 'moves in the time between sleep and waking', which is the time of transition and the two worlds of 'sleep and waking' suggest night and day, or even death and life, of the soul. It also suggests the significant moment when the mind is emptied of attachments and not yet filled with new concerns. The Lady is in that state, forever fading and self-renewing. She seems to embody what Kearns calls the 'primal vision or moment of immediate experience' (**Kearns, 1987: 234**). The experience transcends the difference between the subject and the object, time and the timeless, as well as movement and stillness. Interestingly, the Lady's existence in

the minds she transforms is all-pervasive, all-penetrating, and always tantalising but always out of reach if the intellect tries to analyse it. D. T. Suzuki argues that in suchness, '[the] actor is the acting, and the acting is the actor' (**Suzuki, 1957: 40**). It is impossible for the actor to stop acting in order to find acting itself.

The beginning of Section V tries painstakingly to disentangle the relationship between the creator and the created. As the Word is in fact within the world, the light that 'shone in darkness' does not come from outside the world. Therefore, the speaker's spiritual destination is in the world that he previously wanted to escape from. That is to say, spiritual stillness can be found in the world of movement. It does not concern any specific action, but is reflected in the protagonist's manner of non-attachment when facing the changing world. Unlike the general Christian idea of Heaven independent from earthly life, to seek salvation in life is more in line with Buddhism. Moody deduces that if the worldly noise disappears, 'what will be heard in the absolute silence will be the voice of God' (**Moody, 1994: 150**). However, if the Word is not without the world, the only way to hear the voice of God is to see through the hollowness of the noise, not to try to eliminate it or wait for its dispersion. Even the elimination or dispersion of the noise is illusory, for the noise is in its nature a kind of impermanent and empty movement. The realisation of the emptiness of the noise naturally suggests the beginning of the divine voice, and the change is more simultaneous than successive. The voice of God cannot be directly heard as something that comes from outside the self, as it is immanent in the world. Thus the only way to hear it is to realise its rhythm in actual life, which suggests that the hearer of the voice of God is the voice itself.

In the final section, the details of the visions of the sea awaken the senses and despite the awareness that they may cause attachment the speaker cannot help but loving them: 'though I do not wish to wish these things' (**Eliot, 2015: 96**). The life-giving sensuous beauty opens up another possibility: perhaps the key to spiritual salvation does not concern the black-and-white choice between hedonism and asceticism. The salt savour itself is neither good nor evil. By focusing on praying, instead of thinking about 'the profit and the loss', the speaker resumes the mind of non-attachment: 'Teach us to care and not to care / Teach us to sit still / Even among these rocks' (**ibid: 97**). As the speaker lives in the realm of time with the uncontrollable surges of sensuous passion, what he can do is to renew his faith again and again in prayers. Although the flow of time is out of the speaker's control, time can be redeemed through what John Kwan-Terry calls the 'renewed contact with the eternal' (**Kwan-Terry, 1994: 139**). It echoes the Buddhist spirit of reconciling the material and the spiritual by focusing on the domain of



daily life, with unsettling sensations and desires experienced but not adhered to. Nirvana can be accessed in the here and now. As P. S. Sri observes, 'we are caught up in our regrets about the past or in our worries about the future that we are never quite conscious of the innocence and promise of the present' (Sri, 1985: 100). The tranquillity of the new life still accords with the Buddhist suchness. By crying onto the divine, the speaker realises the life of non-attachment on the sphere of worldly existence. The stillness from God is realised in the movement of time-bound life. It seems that in the end Eliot prefers 'the path of the devotee over the path of the sage' (Kearns, 1987: 249). But are not the sages devotional as well? When the devotees are performing acts of devotion, is not their state of devotion a state of life of which the sages approve? To go on trying is to maintain the suchness of the devotional soul. In the act of trying, the devotee and the sage are one.

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# Brasiguaios Identities: An outcome of the pursuit of land across the Brazilian and Paraguayan shared border region

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**Abstract** *The movement of people between places is far from being a new or isolated phenomenon and is happening more often than before. This is also the case for individuals who moved from Brazil to Paraguay. Based on the existing literature as well as on data gathered in the landless camp Antônio Irmão, also known locally as the 'Brasiguaios landless camp' in Itaquiraí in the state of Mato Grosso do Sul, Brazil, this article explains how their search for a piece of land in either Brazil or Paraguay influenced the formation of the Brasiguaios identities. First, I briefly approach the foundation of transnationalism scholarship, which guided my research. Next, I demonstrate how land policies in Brazil and Paraguay, aimed at developing their respective border regions, played a role in the migration of Brazilians to Paraguayan and then the return of a number of them to Brazil. Last, I share the narrative of individuals in the Brasiguaios landless camp in the pursuit of land in either country. At the core of my argument is that the Brasiguaios identities of this landless group result from their pursuit of land rather than from migration processes.*

Keywords: migration; borders; transnationalism; Brazil; Paraguay; Brasiguaios

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## Introduction

Migration is far from being a new or isolated phenomenon, and individuals are increasingly moving from their place of birth. The movement of people, goods and information, especially since the last century, has acquired unprecedented dimensions in the twenty-first century. According to the United Nations Population Fund, 244 million people live outside their country of birth (UNFPA, 2017). This number is likely to be an underestimate as it excludes those who have immigrated illegally as well as groups living in proximity to their country of origin, a number of whom often falsely claim to be residents of their country of

origin to profit from welfare benefits, which is the case of many Brazilian immigrants living in Paraguay (**Estrada, 2015**).

In the modern world, political borders have been crucial in presenting the movement of people between countries. The movement of people across borders has been in the interest of not only individuals seeking to socially and economically benefit from more than one country but also in the interest of policy-makers and researchers. As an area of academic enquiry, the field of transnationalism was grounded on the analysis of 'processes by which immigrants forge and sustain multi-stranded social relations that link together their societies of origin and settlement' (**Glick Schiller et al., 1994: 7**). Since Glick Schiller and her colleagues established the field of transnationalism in the 1990s, this field has rapidly evolved. While the phenomenon became better understood, it has presented new challenges to researchers in the field of study. Recently, scholars such as Strüver (**2005**), Kopinak and Soriano Miras (**2013**) and Estrada (**2015**) have demonstrated that non-migrants, as well as migrants, living within bordering communities, have engaged in transnationalism without the need to migrate. Hence, there is a need, for instance, to expand the transnationalism scholarship by focusing on the transnational processes themselves rather than devoting attention to processes carried by immigrants only.

There is ample evidence suggesting that transnationalism is not a new phenomenon; the field of transnationalism has long demonstrated that it is not only immigrants who create and maintain ties involving two or more countries. The movement of people, goods and services across nation-states dates back to the time when the means of travel and communication were expensive and accessed by few people (**Portes, 2001**). At the same time, especially in the field of border studies, scholars demonstrated that borders, territories and individuals' identities are not congruent. This argument was present in my doctoral research *Everyday Practices of Transnational Living: Making Sense of Brasiguaió Identities*, in which I argued that both immigrant as well as non-migrant groups have engaged in different forms of transnational practices; hence, the existence of diverse Brasiguaió identities. In this particular case of Brasiguaiós in the landless camp Antônio Irmão, I demonstrate that the formation of Brasiguaió identities result from people's aspiration to have a piece of land for agricultural production. In the years of 2013 and 2014, I lived for approximately four months in this landless camp.<sup>i</sup> Based on data gathered from two multi-sited ethnographies carried as part of my PhD research, I show that Brasiguaiós have their identities grounded on the pursuit of land.

## **The conceptual articulation of Brasiguaios identities**

The word Brasiguaios is a combination of the words Brazilian + Paraguayan, in Portuguese **brasileiro** + **paraguaio** = **Brasiguaios**, also spelt in Spanish as **Brasiguayo** (**brasileño** + **paraguayo**).<sup>ii</sup> The formation and representation of Brasiguaios identities were grounded and have been widely perceived within the scholarly community as an outcome of the mass migration of Brazilians to Paraguay, as if the migration process by itself had led to the formation of Brasiguaios. Yet, scholars have studied different groups holding socio-cultural ties in Brazil and Paraguay (e.g. **Nickson, 1988; Nogueira and Silva, 2008; Marques, 2009; Albuquerque, 2010; Vuyk, 2013**).

Migration was at the core of the studies on Brasiguaios when it acquired force in the 1990s, and continued in the second wave of studies on this group that has rapidly increased since the 2000s. The earliest conceptual articulation, presented by the Brazilian anthropologist Sprandel (**1992**), referred to Brasiguaios as Brazilian immigrants who did not economically succeed in Paraguay. Sprandel's work is still important and widely used by researchers with focus on the mass migration of Brazilians to Paraguay, especially between the 1960s and 1970s, to explain the formation of the Brasiguaios identities. However, further studies have demonstrated Brasiguaios identities in different contexts. Despite the important contributions of these works, they focused upon the Brazilian migrants living in Paraguay, paying limited attention to individuals of Paraguayan origin, Brazilian returnees from Paraguay living in Brazil, and local inhabitants living within the shared border region of both countries.

The second wave of researchers interested on Brasiguaios appeared after 2000, and literature on this group has rapidly increased since then. Conducting research according to their different areas of expertise, a number of researchers have gone on to identify Brasiguaios living in Paraguay as well as those returnees living within the Brazilian and Paraguayan border region as being part of this distinct group of Brazilian migrants. In Brazil, these researchers include Albuquerque (**2010**), Cognese (**2012**), Dietrich (**2004**); Nogueira and Silva (**2008**), Marques (**2009**), to mention a few. In Paraguay, researchers also have interest in this group and use the term Brasiguaios when referring to Brazilian migrants living and working in agricultural production in Paraguay (**Fogel and Riquelme, 2005; Mongelós, 2006; Nickson, 1988; Palau and Heikel, 1987; Vuyk, 2013**).

Commonly, Brazilian scholarship uses the term Brasiguaios referring to both the Brazilian peasants and small farmers who immigrated to Paraguay after failing to thrive in Brazil; and those who returned to Brazil after failing to thrive in Paraguay. In Paraguay, the term commonly refers

to wealthy Brazilian immigrants and their descendants, usually large soybean producers. In both countries, despite the evidence that many self-defined *Brasiguaios* are engaged in agricultural production or in the pursuit of land, the focus is still on their migration processes. To define a *Brasiguai* is problematic because the term has taken on a variety of meanings, often contradictory and renegotiated over time, to indicate how the group members strategically navigate their lives through their journeys, usually in the pursuit of land, within Brazil and Paraguay.

### **Land policies and the migration of Brazilians to Paraguay**

The development of the border region through agriculture was at the core of the dictatorships in Brazil and Paraguay, 1964-1985 and 1954-1989, respectively. The national land policies created separately in Brazil and Paraguay to develop their respective border regions had a 'push-pull' effect in both countries. In Brazil, domestic land policies seeking to populate the poorly inhabited central-western part of Brazil began to be implemented during the mandate of the Brazilian president Getúlio Vargas (1930-1945). As a strategy to stimulate migration from other regions of Brazil, Vargas put in place a series of land policies known as *Marcha para o Oeste* (March to the West). The main objective was to develop the centre of Brazil, and the state of Mato Grosso<sup>iii</sup> [do Sul], on the limit with Paraguay. Those policies were instrumental in attracting peasant and small farmers from other parts of Brazil, who would later migrate to Paraguay. The Brazilian government had two economic justifications for their interest in populating that region. Firstly, as those regions had fertile soil, it would be economically beneficial to develop commercial agriculture in them. Secondly, the Brazilian government seek reinforce its sovereignty by populating its border region with Paraguay, which had been demarcated in 1872.

To develop those regions, Vargas' government first attracted the *Nordestinos* (Northeasterns) peasants especially from the impoverished states of Bahia, Paraíba and Pernambuco in the northeast region of Brazil. *Nordestinos* were a group mainly comprised of ethnically mixed Europeans, Amerindians and African descendants. This region had experienced severe drought and economic difficulties since the 1930s that would last until the 1980s. Thus, the *Nordestinos* were relatively eager to emigrate from that region. Vargas and his successors subsequently implemented strategies to attract the *Sulistas* (southerners) from the south of Brazil. The *Sulistas* were comprised largely of European descendants. To attract them to engage in agricultural practice in Paraguay, the government emphasised the fertile soil, abundance of



water and climatic conditions similar to the conditions found in the south of Brazil.

Later, in the 1950s, the Brazilian president Juscelino Kubitschek (1956-1961) continued Vargas' programme to populate the border region with Paraguay, which had been unsuccessful at creating favourable conditions for them to develop agriculture in the central-western part of Brazil, near Paraguay.

While some land programmes failed to stimulate migrants to remain in the region, other programmes developed mechanised modes of production that drastically reduced the number of people required for agricultural production (**Cortêz, 1993; Tiburcio, 2011**). As result of the failed land programme in the Brazil, attracted by Paraguayan land policies to attract Brazilian migrants to develop its border region, a number of Brazilians in the central-western region moved to Paraguay.

During the same period, the construction of the binational Itaipú hydroelectric dam (1974-1983) on the border between Brazil and Paraguay, which flooded a part of both countries, would later contribute to the migration of Brazilians to Paraguay. The construction of the lake on the border between Brazil and Paraguay forced the displacement of 42,000 people, 38,000 of whom were small farmers (Albuquerque, 2010: 66). The total of Brazilians who migrated to Paraguay as result of the construction of the Itaipú hydroelectric dam is uncertain. A number of small farmers who had their land displaced by the construction of the dam migrated to Paraguay after receiving compensation, where land was much cheaper and very fertile.

Overall, the momentum created by unsuccessful national land programmes in Brazil to resettle peasants and small farmers from other regions of the country, and the construction of the binational Itaipú hydroelectric dam that forced some farmers to leave the area, along with Paraguayan land policies seeking to attract Brazilians to Paraguay, resulted in a mass migration of Brazilians to Paraguay.

### **Land policies in Paraguay as incentives for attracting Brazilian migrants**

In 1952, the Chief of the Paraguayan army at the time, General Alfred Stroessner, gave the Brazilian Geremias Lunardelli, known as 'Cattle King' in the Brazilian state of Paraná, the concession of 450,000 hectares of land in Paraguay (**Cortêz, 1993: 17**). Later, while Brazil was struggling to resettle agricultural workers in the central-western region of the country, General Alfred Stroessner came into power in Paraguay after leading an

army coup in 1954 (1954 -1989). At the time, the fertile land of the eastern region of Paraguay was still mostly covered by its natural vegetation. Until the 1960s, this region was one of the last suitable places remaining in South America for intensive agricultural development (**Tiburcio, 2011: 191-192**). Stroessner introduced a series of policies to attract Brazilians to the departments of Alto Paraná, Canindeyú and Amambay on the eastern side of Paraguay through the development of agriculture.

In the 1960s, General Stroessner planned a series of policies known as *Marcha al Leste* (March to the East). Stroessner's first strategy was to attract Brazilians by promoting land sale to Brazilians through *colonizadoras* (Brazilian private companies based in Brazil, selling land in Paraguay). At the beginning of the 1960s, *colonizadoras* advertised in Brazil that: 'with the sale of one *alqueire*<sup>iv</sup> [of land] in Brazil, it would be possible to buy more than five [*alqueires* of land] in Paraguay,' with the Paraguayan government financing the initial investment to prepare the land (**Wagner, 1990: 16**). Since that time, Brazilians only need to request a *permiso* (permit) on the border when entering Paraguay for no more than 90 days.

As not all crossing points had migration offices, and most Brazilians had the intention to remain in the country for longer than stipulated period, most of them simply did not apply for the *permiso*, or applied once and then lived illegally in Paraguay. In some cases, they would apply for a new *permiso* each time they visited Brazil, and the frequency of their visits to Brazil depended on their work and personal circumstances and could happen very sporadically. This avoidance was because there was a fee to renew the *permiso*, which many people could not afford. In the past, there were many Brazilians officially counted as tourists living within Paraguay, who just regularly renewed their *permiso* (**Albuquerque, 2010**).

In 1963, the Paraguayan government passed the laws 852/63 and 854/63, creating the *Instituto de Bienestar Rural* (Institute of Rural Welfare) and the *Estatuto Agrario* (Agrarian Statute), respectively. Law 852/63 created the Institute of Rural Welfare to promote colonisation (Paraguay, 1963a), land reform and oversight of the land use. Law 854/63 created the Agrarian Statute to stimulate and guarantee that rural properties were carrying out their social function (**Paraguay, 1963b**). According to this law, rural properties accomplish their social function if the exploitation and use of the land proved rational, and if the conservation and recuperation of the land were observed.

In 1967, the Stroessner regime passed a new constitution making significant changes to the law, one of which was the abolition of the national law prohibiting foreign nationals from purchasing land in the

country. This excerpt from an interview with Adilson, a migrant who returned from Paraguay to Brazil in 2012 and now lives in the landless camp Antônio Irmão, gives evidence of the efficacy of Paraguay’s land policies:

I went to Paraguay in 1972... Brazilians who went to Paraguay had relatives or friends there, any small amount [of money] was a lot on the other side... by selling 1 hectare in Brazil, you could buy 10 or 15 hectares, depending on the region, or even more, so, it was easy to buy farms and more farms; thus, the region developed very fast. (**Adilson, Brazilian, 50 [Paraguay, 40], 2012**)<sup>v</sup>

According to Cortêz, the Brazilian president Geisel (1974–1979) had aimed to occupy 121.889 km<sup>2</sup> – 33 per cent of the territory of Paraguay – with 1,200,000 Brazilians, which would make up approximately 45 per cent of the Paraguayan population at the time (**Cortêz, 1993: 188-199**). Although this alleged occupation never happened, the Brazilian presence is very significant in Paraguay. Any figure from either country regarding the stock of Brazilian migrants in Paraguay and their place of origin is still subject to discussion. The table below provides an estimate of the extent of the migration of Brazilians to Paraguay.

Table 1: Stock of Brazilian Migrants in Paraguay

<b>Year</b>	<b>1943</b>	<b>1956</b>	<b>1962</b>	<b>1969</b>	<b>1972</b>	<b>1979</b>	<b>1982</b>
<b>Total</b>	513	636	2,250	11,000	31,869	150,000	250,000
<b>Year</b>	<b>1985</b>	<b>1986</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2012</b>	<b>2014</b>
<b>Total</b>	500,000	350,000	454,501	442,104	459,147	500,000	600,000

Source: Author’s elaboration using data from Laino (**1979**), Wagner (**1990**), Última Hora (**2003**), Marques (**2009**), Albuquerque (**2010**), Tiburcio (**2011**), Lissardy (**2012**), Simon (**2013**), Fiorentin (**2013**) and Stiftung (**2014**).

Giving that the latest figure estimates 600,000 individuals of Brazilian origin merely in the eastern side of Paraguay, any figure is likely to underestimate the actual numbers and complexity of the migration processes of Brazilians to Paraguay. They may leave out the groups of migrants living in remote areas who are excluded from official statistics, along with migrants who were visiting Brazil at the time when the data was gathered. Although it is unlikely that the existing data provide accurate figures, they indicate the extent to which land policies in both countries influenced the migration of Brazilians to Paraguay.

## **The return in the pursuit of land in Brazil, as Brasiguaios**

In the 1980s, the Brasiguaios identity group gained visibility in Paraguay being (re)presented as the Brazilian immigrants in Paraguay. By 1985, tensions grew between immigrants of Brazilian origin, now known as Brasiguaios, and Paraguayan landless groups, resulting in conflicts over land ownership that led to the return of a large number of families of Brazilian origin from Paraguay to Brazil. This group only gained visibility and became known when a group of about 1000 families of Brazilian origin returned overnight from Paraguay to the Brazilian bordering of Mundo Novo, in the state of Mato Grosso do Sul, on 14 June 1985. Their plight was widely reported in Brazil, also as far as in the United Kingdom (**Rocha, 1985**). Those individuals returned from Paraguay upholding the Brasiguaios identity demonstrated that identities were not constrained within boundaries, but are a fluid process that can be assimilated, reproduced and altered through time and territory. In the words of Pratt and Yeoh, identities are 'contradictory and complex, and must be assessed at specific times and places' (**Pratt and Yeoh, 2003:259**).

According to Albuquerque (**2010**), the return of Brazilians from Paraguay was led by the promise of agrarian reform in Brazil, which was made by the presidential candidate José Sarney, who governed Brazil from 1985 to 1990. Despite his promise of settling 1.4 million landless families during his mandate, he only settled 90 thousand families (**Palhares, 2011**). The return was organised with the support of the office for the *Serviço Pastoral do Migrante* - SPM (Pastoral Care of Migrants<sup>vi</sup>) in Paraguay through contacts in Brazil, members of the Office for the *Serviço Pastoral do Migrante* of the town of Foz do Iguaçu, in Brazil, and representatives of the MST (**Albuquerque, 2010**). Those circuits are complexly formed and involved a variety of actors. According to Hannerz, various historical sources of culture are differentially visible and active, and they take the shape of a 'continuous spectrum of interacting meanings and meaningful forms' (**1996: 67**). Despite these self-defined Brazilians having the support of different organisations, their return was problematic. Paulo, who returned to Brazil in 2010, explained:

Since the 1980s, people say we are Brasiguaios because we came here [to Brazil]. There is no problem because we are really Brasiguaios, but it is not nice because people look and think, 'they are poor people who came here to ask the government for a piece of land because they are Brazilians. Even so, we will say we are Brasiguaios, so people know we were expelled from Paraguay. (**Paulo, Brazilian, 38, [Paraguay, c.25], 2010**)

Paulo's narrative gives evidence of their landless condition. In this fragment, besides reinforcing their rights as Brazilians, they upheld their

status as Brasiguaios to differentiate themselves as a distinct group from the rest of Brazilians by showing allegiance to Brazil and Paraguay; individuals have demonstrated loyalty to two or more countries (**Fitzgerald and Waldinger, 2004: 1181**). Liisa Malkki (**1992**) argues that as human mobility increases, individuals create identities through memories from different places, including places where they have lived but will not be able to live in again.

As points out by Massey (**2005**), every representation is a representation of a time and space; it only exists in context. The Brasiguaios strategy produced results in 1985, and the Brasiguaios were settled by the Brazilian National Institute for Colonization and Agrarian Reform – (INCRA) in record time in the city of Ivinhema (**Sprandel, 1992**), which was later emancipated and became the town of Novo Horizonte Sul, also in the state of Mato Grosso do Sul, about 200 kilometres away from Mundo Novo.

The mass return from Paraguay to Brazil of individuals claiming to be Brasiguaios and struggling for agrarian reform is still remembered and celebrated in the young municipality of Novo Horizonte do Sul. The representation of Brasiguaios, built upon the idea of migration and pursuit of land in Brazil, was seen in the celebration of the 19<sup>th</sup> anniversary of Novo Horizonte do Sul on 30 April 2011. The celebration included a play enacted by pupils from the local school presenting the arrival and mobilisation of Brasiguaios in the town of Mundo Novo in 1985, which had led to the establishment of their current home (**Resende, 2011**). Recently, in June 2017, schools in Novo Horizonte do Sul celebrated the 32<sup>nd</sup> anniversary of the settlement of the self-defined Brasiguaios who returned from Paraguay to Brazil on 14 June 1985 (**Valemsnews, 2017**). As Sprandel (**1992**) pointed out long ago, when referring to this group, the mobilisation in the pursuit of land entrenches in the collective memory of these Brasiguaios (**36**). Both celebrations demonstrate that the migration process and return, as well as the movement between both countries, had become markers of their Brasiguaios identity.

### **The Antônio Irmão landless camp of Brasiguaios**

The landless camp Antônio Irmão,<sup>vii</sup> known as 'Brasiguaios landless camp' is part of the Brazilian Rural Workers' Landless Movement (**MST**). In Brazil, landless people build landless camps, sprawling villages of tarp tents usually built in the area meant for the construction of federal highway shoulders, which belongs to the government, and then start to demand a piece of land for farming from the Brazilian government. The landless

camps are built near a highway due to two main reasons. Firstly, it is public land, so the likelihood – although possible – of eviction is low. Secondly, they want to be seen by society; to stay by a highway is their strategy to be seen by the media. Media, therefore, not only serves for presenting everyday reality but also contributes to confirming, creating and recreating the identities (**Prado, 2005: 3**). Below, pictures 1 and 2 show the aerial view of the landless camp and a part of the landless camp, respectively.

Figure 1: Location of the landless camp Antônio Irmão



Source: Author's elaboration using Google maps. The landless camp is the white and black tarp tents which the area marked in yellow.

Figure 2: Landless camp Antônio Irmão



Photo by the author. This is a part of the landless camp Antônio Irmão.

This landless camp was created in 2001, but it grew in size and gained visibility in the media with the arrival of the self-defined *Brasiguaios*. In 2009, as a result of political changes and the intensification of the MST's advocacy work in Paraguay assisting in the return of families of Brazilian origin from Paraguay, this landless camp had up 612 families. As pointed



out by Adão, a MST's member who did not live in Paraguay but carried out advocacy in Paraguay said:

Maybe, they made an agreement; it is a joke what I am saying, but nobody knows: Let's send those Brazilians to work over there [in Paraguay], after about 50 years, when we think it is enough, send them back [to Brazil]. (**Adão, Brazilian, 45**)

Adão's joke may be real. Wagner (1990) suggested that the migration of Brazilians to Paraguay was perceived by landless groups as a meticulously planned agreement between Brazil and Paraguay to develop agricultural production within the border regions. Whether or not they constituted a plan of agreement between both countries, Brazilian and Paraguayan land policies were planned and implemented over time as if these governments came up with these policies separately. The Paraguayan government's objective was clear: to have highly-skilled Brazilian farmers. This objective was achieved. Land policies, along with cheap land and economic incentives, attracted a large number of Brazilians to Paraguay. As the Brazilian government was unable to resolve the agrarian issues in Brazil, the migration of Brazilians to Paraguay was seen by the Brazilian government as a positive alleviation of internal land problems.

Although some Brazilians and their descendants became responsible for most of the soybean production in Paraguay over the years, not all of them managed to economically succeed in that country and some needed support to return. The MST in the State of Mato Grosso do Sul supported the return of Brasiguaios because 'many of its militants and leaders are Brasiguaios, who returned from the neighbouring country [Paraguay]' (**Moraes and Costa Vieira, 2015: 375**). This is seen in the narrative of João, who explained that:

There are people who have resources, and want to return to Brazil, but if they sell all they have in Paraguay, they cannot afford a piece of land in Brazil. So, the way to do it is through agrarian reform. This is what motivates these people to join a landless camp. (**João, Brazilian, 27 [Paraguay, 15], 1999**)

Many other residents in the landless camp shared a similar narrative. In some cases, they explicitly said they had no preference to be in either Brazil or Paraguay, as long as they could have a piece of land; this is because, as João said in another moment, 'Brasiguaios have roots in both countries'. Jaime further explained:

We were all working together in Paraguay, some people returned, some people stayed, but we are all working with land. We came before to get land, but we are Brasiguaios too and we are a part of



the MST, so we help them. Maybe, they will help others in the future. (Jaime, Brazilian, 42 [Paraguay, 17], 2009)

As Jaime explained, militants in the landless movement have supported the returned of Brasiguaios because they are also both Brasiguaios and members of the MST, which the MST started to assist this group before it was formed in 1984. The MST-MS has assisted the return of Brasiguaios from Paraguay to demand their Brazilian constitutional rights to property (Brasil, 1988). It is seen that decisions made at the national levels are significant to the practice of grassroots organisations and variations in the constitution; new laws have drawn noteworthy attention from migrants' offspring toward the country of their ancestors' (Fernandez-Kelly, 2015: 303).

The MST-MS has provided strategic support for poor Brazilian returnees from Paraguay to resettle and, therefore, to exercise their citizenship rights in Brazil. As a social movement that mobilises landless rural workers to demand land from the Brazilian government, by assisting in the return and settlement of individuals coming from Paraguay to Brazil, the MST-MS has helped to establish the noteworthy and meaningful condition of landlessness as a part of the Brasiguai identity.

### **Concluding remarks**

The pursuit of land in Paraguay, and later in Brazil, grounded the formation of the Brasiguai identities of individuals living in the landless camp Antonio Irmão. Migration was an outcome, a result of their pursuit of land in both countries, rather than their objective. At first, Brazilian peasants and small farmers migrated within Brazil to develop the Brazilian border region with Paraguay through agricultural production, and later were attracted to Paraguay. The pursuit of land in Paraguay was, in part, led by the creation of Paraguayan land policies, especially in the 1960s and 1970s, along with the construction of the Itaipú hydroelectric dam, which expropriated a number of farmers and peasants in the Brazilian.

The second push in the consolidation of the Brasiguai identities happened with the return of a large number of Brazilian immigrants from Paraguay to Brazil, in 1985, along with their descendants, when they were expelled from their land in Paraguay, and sought land in Brazil. The foremost remark is that the establishment of Brasiguai identities, broadly speaking, has been guided by their desire to have a piece of land in either country and, at the same time, creating socio-cultural ties in both Brazil and Paraguay.

<sup>i</sup> I previously visited the landless in 2012, which was very important to obtain permission to stay in the landless camp in the subsequent years. In 2015, I visited the landless for a week to give an update on the process of my research and share with them information about the conferences where I had presented my research about them, so I would not leave any negative aspects behind, as other researchers had left before me. In 2016, although I had not planned, while I was visiting Brazil, I travelled to visit the landless camp for two days.

<sup>ii</sup> Although Brasiguaios is not a recognised nationality or ethnic group, respecting this self-defined and/or attributed category as a distinct group from Brazilian and Paraguayans, I use capital 'b' when writing about this group in the English language.

<sup>iii</sup> Today's state of Mato Grosso Sul came into existence in 1977 with the division of the state of Mato Grosso into two: Mato Grosso and Mato Grosso do Sul

<sup>iv</sup> The *alqueire* is a unit of measure for the distribution of productive land used in Brazil since the time the country was a colony of Portugal; it is still widely used and is the equivalent of 2.42 hectares.

<sup>v</sup> When citing excerpts from interviews, I use the following system: Pseudonym of the respondent, country of citizenship, age at the time of the interview, years living in Paraguay and year of return to Brazil.

<sup>vi</sup> The *Serviço Pastoral do Migrante* is an arm of the Catholic Church, created in 1984, and officially established in 1986, with the objective is to assist migrants at the local and national level.

<sup>vii</sup> The documentary *Brasiguaios: Transnational Lives and Identities* provides information about this identity group. Further information is available in its official website [www.brasiguaios.com](http://www.brasiguaios.com).

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# Spatial Justice: Space, place and counter-normative movement in *Latcho Drom*

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**Abstract** *At a time when diasporic identity is being acutely challenged, it is important to pay critical attention to counter-cultural texts which refract hegemonic discourse through alternative spatial landscapes. The French film Latcho Drom (Gatlif, 1993) provides a stylised and radically unique retelling of the journey of the Roma from the Thar Desert in Northern India to Spain, passing through Egypt, Turkey, Romania, Hungary, Slovakia, and France. Gatlif's film can be read as a sensory refraction of legal frameworks of exclusion on the 'edges of Europe', and acts as a site in which it is possible to explore the way in which a minority filmmaker constructs alternative spaces of justice. Through the practice of textual analysis, this article will examine how various framing techniques subvert the hegemonic qualities of the law through the cinematic depiction of a lyrical and diasporic journey through Southern Europe, in order to deconstruct the way in which the aural and visual space refracts law's function as a spacing mechanism. Drawing on Gilles Deleuze's work on cinema and within a theoretical framework of critical space theory, this article will discuss key issues of counter-cultural topographies, alternative spacing mechanisms and the construction of spaces of justice in the context of law and film.*

Keywords: Law and film; Roma; diaspora; space; temporality; spatial justice

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## On the Particular Use of Space

For David Delaney, law operates at every scalar level and in all spaces, and as a consequence there is a need for scholarship which examines the 'contradictions, gaps, slippages in how "law makes space"' (2015: 99-100). Using close spatio-legal readings of *mise en scène*, the cinematographic framing of legalities, and the techniques employed to evoke a distinctive spatio-temporality, this article will offer a distinctive perspective on the way in which *Latcho Drom* (Gatlif, 1993) resists the normative construction of space. Tony Gatlif's film explores the diasporic



journey of diasporic Roma from India to Europe, through a series of interconnected musical episodes drawing forth a richly nuanced spatio-temporal framework through which to imagine the potential for spatial justice. The critical act of reading the normative shaping of space through the visual introduces the methodological potential of deconstructing law through film form, focusing on how law is 'framed' through composition, cinematography, colour and how it is represented within the diegesis of the film in a way which subverts the normative shaping of space.<sup>1</sup> *Latcho Drom* features cinematic techniques which reflect a critical attempt to see the world, and, in effect, symbolises a method of spatial justice. If law can be regarded as a mode of 'regulation of behaviour [...] controlling the 'use' of a particular space' (Manderson, 2005: 3), the space produced through this film is a central means of examining a subversive process of shaping, interaction and composition, acknowledging that:

a two-dimensional photographic image of projected light and shadow becomes an illusionary, three-dimensional, cinematic landscape. This landscape has its own geography, one that situates the spectator in a cinematic place where space and time are compressed and expanded and where societal ideals, mores, values, and roles may be sustained or subverted. (Hopkins, 1994: 47)

This analysis therefore seeks to explore Gatlif's use of particular techniques in order to subvert normative constructions of space, 'destabilising the frame' (Manderson, 2005: 5) in order to challenge the juridical and socio-political discourse of 'nomadism' as it has historically been employed to justify exclusion and discrimination of the Roma minority (Hancock, 2002; Sigona, 2003, 2005; Simoni, 2011). Taking account of legal constructions of boundaries and limits as 'topoi of the cinematic imagination' (Mendes and Sundholm, 2015: 121), this reading of *Latcho Drom* will aim to provoke new inquiries into the relationship of law to the visual, beyond the confines of narrative, symbolism and the aesthetic. In this way, reading this film as a counter-narrative has the potential to offer an innovative and important critique of the discourse of nomadism and the ethics of diaspora, revealing the operation of law implicated in the shaping of space (Delaney, 2015: 98). Such counter-narratives of spatiality provide an opportunity to cultivate critical awareness of the legal mechanisms producing a monotopic vision of space with problematic consequences, and therefore challenge the normative construction of (legal) space which makes eviction, discrimination and linear definitions of legal occupation possible. In this way, it becomes possible to address the construction of 'illegitimate' subjects within a static national spatial imaginary, as if space never moves whilst the illicit subject moves to cross normative boundaries (Keenan, 2015: 8, 35). This musical narrative filmed in a documentary

style also evokes a potentially broader discussion about how to position the diasporic subject if the concept of what constitutes 'here' in the context of the cinematic landscape is revealed as a problematic construct which can be both wholly redundant and distinctively revelatory (in unexpected ways) (**Massey, 2006: 139**).

Tony Gatlif's *Latcho Drom* (**1993**) – translated as 'Safe Journey' – can be read as a means of exploring the refraction and subversion of hegemonic discourse in the depiction of a diasporic journey through Southern and Eastern Europe. The film follows communities within the Roma diaspora through moments in their dispersal from India in the 11th century, seeking to trace this series of journeys to Europe through a narrative focusing on the traditions of music which have emerged over time as refrains and melodies which bind this genealogy, running like a thread through multiple communities, timescapes and spatialities. Incorporating scenes which take place in India, North Africa, Turkey, Romania and Hungary, then Italy, France and Spain, Gatlif constructs 'an intensely lyrical portrait of [Roma] culture' (**Holden, 1994**) through a wordless musical chronology of disparate times, places and events to evoke a story of temporal presence, dispersal and identity.

To address the interweaving threads of temporal space, lyrical echoes and contingent symphonies of this film would require an extensive volume of space in which to fully map out the complex topography Gatlif evokes. Therefore, for reasons of brevity I intend to limit my discussion to three particular 'scenes' or sequences (although perhaps these are better identified as 'locational transitions' or 'moments'). I will be using the work of Gilles Deleuze (**1997**) on cinema in order to 'think through [the] film' (Herzog, 2001),<sup>ii</sup> by engaging with his writing on the semiotics of film form (**Deleuze, 1997: 365-366**). Deleuze's thinking was particularly 'attuned to the specificity of the film image', as a means of unlocking the way in which both the temporal and spatial can be portrayed distinctively in film and, as such, the potential political opportunity for transformation (**Herzog, 2001**). Deleuze's reflections on cinema can be framed through his central premise, in which he identifies the shift between pre-and post-World War Two cinema, in which linearity and causality were replaced by a non-teleological upheaval in historical and political terms. For Deleuze this resulted in a recognition of the distinction between the 'the time image' (as opposed to the 'movement image') the 'time-image represents a shift from \*action\* to a focus on \*time-in-itself\*' (**Herzog, 2001**). For Deleuze, then, the political impact for what I will term 'spatial justice' rests in the recognition of incommensurability in the interstitial spaces evoked through a particular use of film form. For Deleuze, what made cinema so provocative was the recognition that film represents an operation of provocation, in which spatial and temporal order and

stratification are depicted in such a way that it is impossible to avoid a challenge to the juridico-political spatial order, even if this is only momentary (**Arnott, 2001**). In other words, in his two-volume treatise on cinema Deleuze identified distinct modes of film form which reflected different ways of seeing (or 'imaging') the world. Gatlif's film portrays a particular way of seeing that gestures towards spatial justice, as its particular techniques subvert tempo-spatiality and challenge assumptions of static space and nomadic subjects to reveal that, in fact, *space itself* is 'awkward, angular, unmappable, [and] unpredictable': it is, in this sense, 'not a line defined by two points, but a manifold plane of disorientation and lack of direction' (**Philippopoulos-Mihalopoulos, 2010: 204-205**). Hence, this non-linear film represents an opportunity to deconstruct the normative shaping of space through the conceptualisation of cinematic spacing and spatiality as a means of exploring the deliberate and implicit dislocation of the illicit subject from the juridico-political spatial order, and subverting this conceit.



Fig. 1



Fig. 2

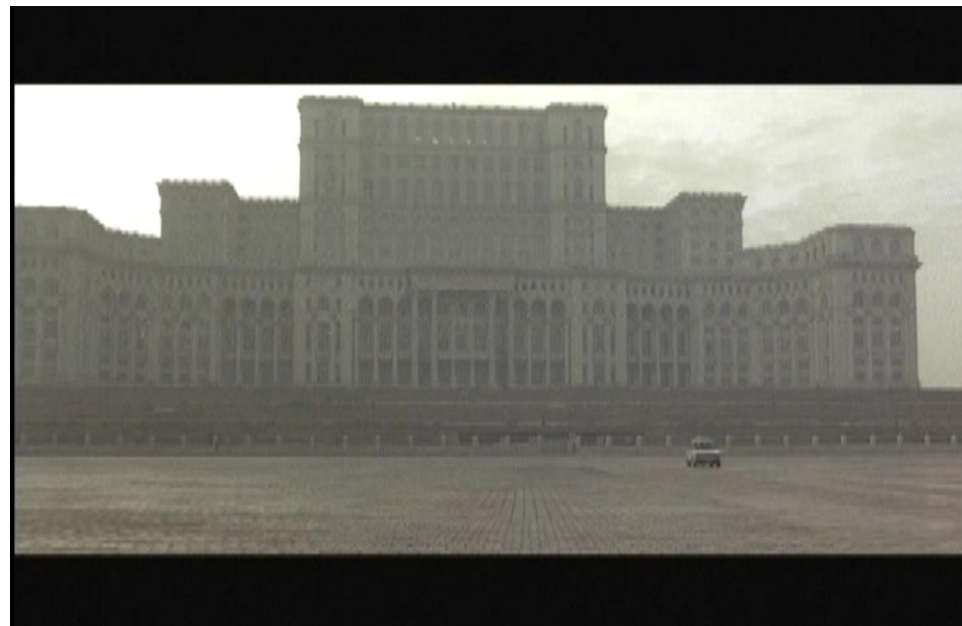


Fig. 3

## **Place**

The first focal point in this discussion is the locational shift from Turkey to Romania, representing a series of migrations that occurred as part of a broader diasporic journey. *Gatlif* leads us from one place through another using jump cuts, rather than a fade, to demonstrate ruptures rather than a smooth and fluid transition. Here we see a close-up low-angle shot of the moon, as glimpsed through a telescope on the banks of the Bosphorus Strait, which then immediately cuts to a low angle shot just above ground level of legs splashing through puddles,

with only the reflection of moonlight in the disturbed puddle a sign of what has gone before [Fig. 1]. The camera cuts to a vantage point above the street, and then proceeds to track down to a medium shot, the boy's footsteps amplified as he walks over to two musicians seated beside a tree [Fig. 2]. Gatlif manoeuvres between close-ups of the boys and the singer as the latter performs, at which point the location is explicitly identified through a song of protest about 'Ceaușescu the Criminal'. The camera zooms in for an extreme close-up, panning back and forth on the singer's hand as he pulls the string of the violin out beside him, holding it taut in order to draw out a haunting, rasping note. As he sings, the camera tilts upwards to a high angle shot buried in the leaves, then cuts to a low angle shot looking up at green leaves cascading from the tree, the sound of the wind a backdrop to the man's haunting song about people 'taking to the streets', the leaves (now brown) scurrying across the ground as the camera pans from right to left. This montage can be said to represent a disruptive impact of discordant cinema and its role in the unravelling of the dogma of spatio-temporal order: here, it represents a particular technique which insists upon sensorial disturbance, in which the aural and the visual are dislodged and diverge from our expectations as a viewer (**Arnott, 2001**), as evidence of the dynamic operation of both immanent and localised transformations of constitutive elements (**Deleuze and Guattari, 1994: 217**). Suddenly, we jump to a long, slightly hazy establishing shot of Ceaușescu's palace in Bucharest [Fig.3], with the extra-diegetic sound of the protest song enduring throughout the shot. The film cuts to the same boy we had observed listening to the musicians play, indicating a continuity of narrative presence (which is a way Gatlif creates links between different compositional structures). The music stops to indicate another jump cut to the village in which we began, with the same boy moving through the village as the camera tilts from a low angle shot to a vantage point above the rooftops, and then immediately cuts to a close-up of the crisp white sleeve of a man dressing. The vibrant seasonal colours of this scene and the initial introduction to this boy (the red of his jumper, the green of the falling leaves, the yellow houses as the camera tracks the musicians as they step out of their homes) frame the dull browns of the shifting, dead leaves on the ground and cream of the palace exterior. The camera captures the musicians in a medium shot as they are surrounded by a crowd under a clear blue sky, and begin to play. The juxtaposition of this lively, upbeat tempo with the haunting ballad of the previous scene creates a distinctively contrasting topography of sound, with peaks and troughs indicating a rhythm which shifts and changes constantly. The camera takes on the role of numerous spectators in the crowd here, at times tracking through the assembled bodies, sometimes static in an over-the-shoulder shot, and occasionally positioned to capture a low

angle shot as if the viewer were a child crouching on the ground, gazing up at the musicians as they play. As the song itself gets faster in pace, the camera – although it does cut between close-ups of the musicians and spectators and medium shots of the crowd – stops tracking between them and becomes associated, conversely, with much more static vantage points. This could be said to portray what Deleuze might define as a ‘fold’, that space ‘between interiority and exteriority [which] produces an excess of difference that cannot be contained by the usual ping-pong between self and other’, a space which ‘keeps on spreading by folding itself’ as the ‘repeated-taking place, again and again, simultaneously’ (Philippopoulos-Mihalopoulos, 2010: 207). For Deleuze, then, ‘[w]hat counts is [...] the *interstice* between images, between two images: a spacing which means that each image is plucked from the void and falls back into it’ (1997: 179).

### **Movement**

To understand the potential of Deleuze’s conception of cinema for accessing spatial justice it is important to recognise that in his discussion of ‘image-movement’ he essentially means the ‘imagining of movement’: hence, ‘[a]ny time the universe is sliced, we are imaging’ (Vitale, 2011). In other words, the image is neither reducible nor subordinate to movement and space but rather directly conceptualises spatial and temporal existence. I want to conflate several ‘moments’ or distinctive ‘scenes’ here to explore the aesthetics and thematics of movement (or, to be exact, the ‘imagining of movement’ as it is depicted in the film). Stephen Holden suggests that the way in which ‘[t]he songs follow one another [is] like production numbers in a traveling pageant where the landscape and architecture are photographed to suggest giant stage sets. Lingering over full moons, misty fields and centuries-old buildings, the camera paints them as elements of a mystical, ever-changing backdrop’ (Holden, 1994). However, following Deleuze, it can be argued that *Gatliif* does not instil space as a series of reversible screens and painted ‘backdrops’ before which his characters perform, but rather depicts space ‘as the plane of a multiple difference, where lines of orientation run simultaneously in a horizontal vertigo of disorientation’, in which, as Andreas Philippopoulos-Mihalopoulos writes, ‘[s]pace is not linear but labyrinthine’ (2010: 207).





Fig. 4



Fig. 5

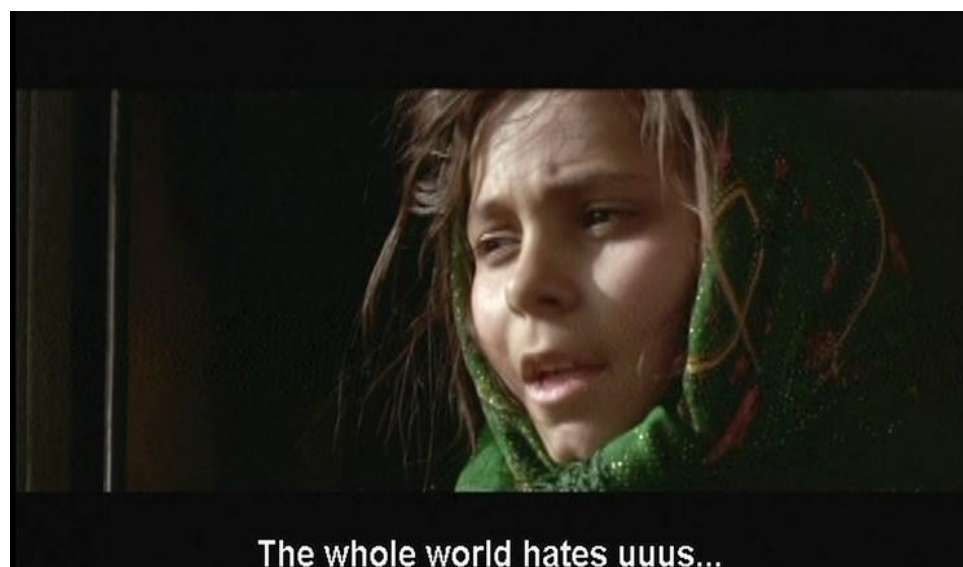




Fig. 6

In the next locational (and, notably, seasonal) shift, the jump cuts create a collage of close-ups of pounding horse's hooves, low angle shots of branches contorted in the wind, tracking shots of the rider and then a close-up of train tracks. These shots, and their accompanying sounds, are all employed to 'drown out' the music from the previous scene, which gradually fades, and emphasise a confluence of motion [Figs 4 and 5]. The audience is then taken immediately inside the train, where a single melody sung by an unaccompanied voice tells the viewer that '[t]he whole world hates us. We're cursed. Condemned to wandering'. Although the close-up takes us to the subject's face we are never marooned solely inside the train, as exterior shots of the faces at the train window and extreme low angle shots of birds swooping against the wide expanse of blue sky render the space in such a way as to contradict (or at least subvert) the claustrophobia in the cabin and the lyrical space of the song [Fig.6]. The viewer is presented with a common signifier of the fluidity of movement, where as opposed to the jump cut Gatlif employs a close-up of water flowing down-stream, the camera panning along as it ebbs and flows, observing each ripple in turn. The juxtaposition of a mellifluous trickle of water juxtaposed with the harried interruption of abrupt jump cuts and shifts in both time and space is a common motif in this film. Later, we glimpse static shots of caravans in France, expressing movement but restricted to a confined angle in the bottom corner of the screen, behind barbed-wire. One of the 'backdrops' Holden refers to is certainly implicated in another scene in which the camera sweeps in to what appears to be a pastoral scene of horses being washed in the river, their shining coffee-coloured flanks absorbed by a camera which tilts down from the sky and pans across to take in the depth of the scene. We catch a glimpse of a boy's hand as he draws an outline of the horse, engraving their presence onto his own skin. This suggests a unique way in which Gatlif uses space by cutting into it, making both imprints of the echoes of presence and simultaneously (paradoxically) reducing the observer to a static site of restricted access, in which the scene simply *unfolds* before us. In this scene the viewer is positioned in the dark interior of a caravan, watching over the shoulders of two shadowy backs as two men (presumably landowners, one bearing a gun) come to speak to the group. We never hear what has been said, but the next shot pans across, following the caravans as they depart in a convoy, before stopping to take in the men standing at the edge of the frame. Crucially, the viewer is not positioned above or below the action, behind the men, or in the interior of the caravan. This gives the viewer a peculiar vantage point in which they are seemingly positioned as voyeurs

but simultaneously disorientated and dislocated: they glimpse neither what has gone nor what will come. Deleuze writes that in film:

[w]e run in fact into a principle of indeterminability, of indiscernibility: we no longer know what is imaginary or real, physical or mental, in the situation, not because they are confused, but because we do not have to know and there is no longer even a place from which to ask. It is as if the real and the imaginary were running after each other, as if each was being reflected in the other, around a point of indiscernibility. (Deleuze, 1997: 7)

This convergence of uncertainty can be seen in the contrast between different points of rupture depicted in the spaces which merge and disassociate from one another in each sequence of the film. In one sequence, Gatlif depicts musicians in their car with a camera mounted on the car bonnet, capturing the speed of the road being swallowed up beneath its wheels. The use of jump cuts emphasises the distance being travelled at high speed, with extra-diegetic music weaving these shots together with the previous scene. Suddenly, Gatlif inserts a video game sequence, a point-of-view shot of a racing game, which we discover is being driven by a boy who will act as a key character in the following sequence [Fig.7]. The music stops, as, off-screen, the boy begins singing a new lament about the life of the 'Gypsy', which then evolves into a quick, restless and ultimately joyous flamenco song.



Fig. 7: A composite of stills depicting the driving sequence in *Latcho Drom*.

## **Spatial Justice**

If we think of spatial justice as ‘the ultimate expression of the claim to one’s unique spatial position’ or, in other words, ‘the irreducibility of one’s corporeal emplacement in space’ (Philippopoulos-Mihalopoulos, 2010: 202), then Gatlif’s subversion of tropes of dislocation can be read as a counter-hegemonic discourse of inhabitation, embodiment and belonging. Those concepts are acutely highlighted in the sequence located in Spain, a sense of place manifested using flamenco rhythms and Spanish dialect in the lyrics of the song. The scene begins with a high angle shot of a public square, and cuts between this perspective and a close-up of the boy singing, and a slight high angle shot of the dancer (wearing the familiar red that has been a motif throughout the film). The echo of this shot reflects an earlier scene in the film, from a North African location, when the camera is positioned from the vantage point of a boy peering down through a window at a crowd watching a woman dance. Here the group is assembled in the open, seemingly embedded in the protective enclave of public space. Gatlif uses a slight low angle shot panning from left to right, interspersed with close-ups of the crowd, to emphasise attentiveness to the dancer, the sound a punctuated cacophony of claps and voices [Fig.8].



Fig. 8



Fig. 9: A composite of stills from toward the end of *Latcho Drom*.

The dancers are silhouetted by thick orbs of light on the walls, shapes thrown by natural sunshine that resemble the focal circles of spotlights fixedly pointed onto the stage. The song progresses until a jump cut to the mixing of concrete, when, though the music continues, a medium shot of the family going into the square portrays the family being evicted. The extra-diegetic rhythm continues to play as various cutaways depict bricked up windows and peeling, boarded up doors at an increasing pace, whilst the guitars repeat the flamenco refrain [Fig.9]. This montage, echoing earlier similarly jarring sequences in the film, can be read through Deleuze's obsession with the links or connections between images, rather than the images themselves. The repetitions of refrains and reappearance of characters can be considered alongside the use of inserts and jump cuts to create a sense in which we are seeing beyond a purely spatial dimension to the revelation of movement as a uniquely

temporal perspective (**Deleuze, 1997: 22**), at the very point at which law (exemplified here in the bricks and boards which attempt to seal the windows and doors) attempts to 'distribute space', as Philippopoulos-Mihalopoulos writes:

When the lines conflict and the bodies clash, when a [...] presence is not tolerated, when two peoples are forced to 'share' the same space at the same time [...] there is conflict. Spatial justice is the movement out of this conflict while delving deeper into it. It is the excess whose line of flight returns in the middle, right where it began, in the thick of law. (**Philippopoulos-Mihalopoulos, 2015: 211**)



Fig. 10



Fig. 11

In the film, the perspective moves to a different location atop a hill, where a wide-angle long range shot pans across the town, juxtaposed with a slight low-angle close-up of a woman (with the same boy we have



accompanied throughout the scene) singing of her life as ‘a black bird who has taken flight’. The camera cuts between her face as she sings, and medium and long shots overlook the town. From within the town, we have shots of disembodied hands clapping long with the rhythm [Fig.10], hands and bodies which reappear on the hillside, flanking a bright blue sky. As in the earlier scenes, fire is used to blur the topography of the town, where orange flames in the foreground crackle in time to the music and provide a focal point which destabilises its clean lines and arterial edges, in contrast to the muted blue and grey tones of the landscape as we pan across the horizon [Fig. 11]. This shallow depth of field is reminiscent of Deleuze’s argument that this technique constructs its own temporal horizon that must always feature confrontations between the past and the present; in other words, *Latcho Drom* reflects the composition of alterity in interaction across, where the temporal is always spatialised by itself (Deleuze, 1997: 108). Instead of depicting this diasporic journey as a distinctly anachronistic dispersal characterised by a linear continuation of excluded culture, this lyrical subversion exposes the ruptures inherent in the unfolding of space implicit in the law. Rather than law drawing the lines of exclusion, these repetitions, discordant juxtapositions and focal distortions represent that even in the shadow of eviction ‘law is [always] spacing itself away from space – it turns against its own turning, brutally returning to the banality of the locality, the incantation of the particular and the hasty concealment of a certain fear of space’ (Philippopoulos-Mihalopoulos, 2015: 207). The film ends with an upward-moving crane shot in which the boy and woman are foregrounded even as the scale expands, the song continuing until we fade to black. The viewer is abandoned in a temporal space of dislocation, where the image ruptures but not by collapsing in on itself, but by revealing the ever-present closeness of this illicit subject in the foundations of the sensory lawscape. For Deleuze, this rupture denotes a continuous moment of splitting as a recognisable moment of emergence (1997: 81). However, it is important to note that here, this does not leave the viewer with a chronological and nostalgic assertion of historical presence but rather a subversion of spatio-temporality. Rather, Gatlif’s use of techniques such as shallow depth of field, jarring montage and extra-diegetic sound represent a depth of the image which is no longer dependent on spatial dimensions, or representations of a chronological continuum of identity in which all we must do is ‘observe the journey’. Instead, Gatlif is unravelling a dislocating collection of distal interactions being played out on a temporal lawscape, as a temporal analysis which subordinates both space *and* movement.

Although this film has been described as a ‘messy cinematic tone poem’ (Holden, 1994), it can be argued that it is in fact this very

'messiness' which enables this film to subvert the spatio-legal system, revealing the deconstruction implicit to the normative power of the law's claim to shape space through the evocative film form (Conley, 2001). Reading this film, then, as a gesture towards spatial justice builds on a Deleuzian approach to film as a means of subverting the lawscape by challenging a reliance on the normative positioning of the subject and the bordered construction of space (Deleuze, 1986: 57). Gatlif's film can be read, therefore, as a counter-cultural text 'located in the fold' (Philippopoulos-Mihalopoulos, 2015: 212) which does not define a totality, but reaffirms the emergence of the complex materiality of spatio-temporality (Bruno, 2010: 220). In this way, *Latcho Drom* insists on reasserting the textures habitually obscured in the assertion of a spatial order, restricting movement, that is authorised through the juridical. Evoking layers of texture through specific techniques demands that the viewer cannot hide from these disturbances of temporality, spatiality and the rendering of place through the illegitimate subject. Gatlif's 'messy' film is a confrontation with materiality that subverts the rhetoric of exclusion and offers the possibility of ongoing deconstruction of the ideological and stylistic 'neatness' of juridical order, as a form of spatial justice (Butler, 2017: 127). *Latcho Drom* offers us a glimpse of spatial justice in the 'fold' – the tactile leaves rustling along the ground, the assertive cutaways of bricked up windows and the disorientating jump cuts act as various elements which demand that perspective re-emerges simultaneously close to the action and, at the same time, at a distance. These sensory distortions and perspectival techniques demonstrate the ways in which Gatlif employs film form to deconstruct law's function as a spacing mechanism through the fold, in which the sensorial impact reflects a gaze at the interstitial non-linear reconstitution of order at its most destabilizing limit (Crockett, 2013: 95-97). Playing with a splintered, subversive and immersive juxtaposition of narrative and documentary style, employing extra-diegetic sound and a cyclical chronicle of fractured and fragmented images of a nomadic history that is also *always here*, in the present, confronts the viewer with the realisation that this portrayal of a diasporic journey does not reify the juridical insistence on a distinction between nomadic outsiders and a singular spatial order, but to celebrate the incommensurability implicit in the normative construction of space.



<sup>i</sup> Various significant works exploring the varied relationships between law and film are well-known, for example: *Law and Film* (Machura and Robson, 2001); *Law's Moving Image* (Moran et al, 2004); *Film and the Law: The Cinema of Justice* (Greenfield and Osborn, 2010). *Law, Culture and Visual Studies* (Wagner and Sherwin, 2014) provides an overview of legal visual semiotics, through a collection of essays which take aesthetic and epistemological approaches to the 'image' in law across multiple disciplines. The essays on film rely on depictions of legality or courtroom scenes in popular culture, rather than a deconstruction of the camera's technique in framing the more fluid aspects of the law. However, the collection provides an excellent variety of case studies in which to draw on 'visual legal meaning making'. Leif Dahlberg (2012) introduces a collection which emphasises law as an aesthetics of visual culture, and takes account of a wide variety of representations in order to consider through the law's visuality through a semiological framework. Some works briefly gesture towards a domain beyond the narrative in law's relationship with film (Black, 1999) whilst others go further to remind us of the impact of film in projecting 'realities' and calls for a renewed focus on the ways in which alternative legal worlds are imagined through film (Sarat, Douglas and Umphrey, 2005). Similarly, Orit Kamir (2006) explores the disciplining practices of what she defines as a 'cinematic jurisprudence' in cross-border cinemascesapes to consider how film 'creates' law in the context of gender. My own work draws on the 'film-as-law' perspective which explores how filmic practices shape reality and construct social order with the boldness of legal doctrine (mimicking it, refracting its premises, or enacting a challenging socio-spatial alternative), as can be seen in works such as *Law, Film, and Fiction in Contemporary American Culture* by Casey Charles (2016) which explores the portrayal of the ideological fictions of law through the queer subject on screen, just as, for example, Alison Young (2005) considers the way the viewer is positioned as judge within an aesthetic framework.

<sup>ii</sup> Deleuze's work on cinema has been described as 'both taxonomy and history' (Conley, 2001).

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# Enhancing the Employability of Chinese International Students: Identifying Achievements and Gaps in the Research Field

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**Abstract** *This article shows what achievements have been made by existing studies on graduate employability, and what gaps need to be filled in this field. It starts with a retrospective account of the changing concept of employability, followed by a presentation of the practices that have been used to support graduate employability enhancement in different countries. Moreover, this article gives a critical review of Chinese contexts of graduate labour market. Last but not least, limitations of existing studies are identified, which reflect an expectation for future research on graduate employability to meet the demand of an increasingly international dimension of higher education.*

**Keywords:** graduate employability; Chinese international students

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## Introduction

There has been a dramatic increase in student international mobility in recent years. In 2015, an estimated five million students studied outside of their home countries (OECD, 2015). China is the world's largest source market of international students. There were 1,260,000 Chinese students who studied abroad in 2015, accounting for approximately 25% of all internationally mobile students in the world (Wang and Miao, 2016). Most Chinese students regard international experience as a significant stepping stone towards the success of future career (Sina Education, 2016; Mok, et al., 2017). However, as a rising number of international students come back to China to pursue their career, the competition in the Chinese labour market has become increasingly fierce. According to the *Annual Report on the Development of Chinese Students Studying Abroad (2016) No.5* (Wang and Miao, 2016), although the returnees enjoyed an 85.9% employment rate within six months after graduation,

only 3.5% of them felt satisfied with their current jobs. Dissatisfaction expressed was attributed mainly to low salaries and the challenge of adapting to the Chinese working context. To be specific, nearly 80% of Chinese international students earn salaries lower than their expectations, with 49% of overseas graduates needing more than five years to recover the cost of learning abroad (CCG, 2016). Meanwhile, 53.8% of overseas graduates have difficulties in adjusting to Chinese working environments (CCG, 2016). The mismatches existing between their economic inputs (cost of overseas education) and outputs (starting salaries) make Chinese international students disoriented and frustrated once they return to China. Therefore, it is necessary to explore how international students can make full use of their overseas experiences to develop their employability so that they can succeed in the Chinese labour market.

The employability of university graduates has been a topic heatedly discussed in educational and economic domains over the past decades (e.g. McKnight, 1999; Knight, 2001; Andrews and Higson, 2008; Jackson, 2016). It is also attracting increasing interest among researchers who specialise in the education-to-work transition of new graduates. This paper starts with conceptualizing the term 'employability', followed by a brief presentation of the existing practices on graduate employability in different countries, and then gives a critical review of Chinese contexts of graduate labour market, hoping to identify achievements and gaps in this field.

### **The concept of graduate employability**

Employability is a complex concept whose meaning has changed over time. The origin of the term 'employability' can be traced from the beginning of the 20th century on the basis of the dichotomy between 'employable' individuals who were willing and able to work versus 'unemployable' individuals who were incapable of work and needed support (McQuaid and Lindsay, 2005). Therefore, at the very initial stage, employability was a pure economic notion which stressed how the government could take measures to facilitate people, the most underprivileged people in particular, to realise full employment in the labour market. In the 1970s, the economic situation changed, and though the main purpose of promoting employability was still to stimulate employment, the emphasis on employability began to alter from employees' self-image and working attitude to their knowledge and abilities (Guilbert *et al.*, 2016).

Since the 1980s, the scope of employability has been expanded to involve the organisational level, focusing on developing employees' transferable skills and thus optimising on their flexibility within an organisation (**Forrier and Sels, 2003**). Until the 1990s, when the concept of employability was discussed, individual initiatives in gaining, maintaining and developing employability during a transition in the internal or external labour market were particularly focused. In addition, at that time, the attention shifted from those people deemed 'needy' to the entire population. All employees have been expected to take responsibility for their own career development (**Fugate, 2006; Nauta et al., 2009**). Nowadays, in the 21<sup>st</sup> century, with the expansion of global higher education, graduate employability has become a popular topic (**Rae, 2007; Smith et al., 2000; Moore and Morton, 2017**), which is heatedly discussed by researchers, employers, university managers and policy makers.

In essence, the views on graduate employability can be divided into two main conceptual approaches. Some researchers and policy makers define employability in relation to an individual's human capital (**Tomlinson, 2010**), insisting that employability describes how individuals invest money, time and efforts in developing knowledge, skills, capabilities and other kinds of characteristics, so that they can better adapt to the demands of the labour market. However, others have critiqued this view, identifying a lack of concern with demand-side external factors and noting that employability is regarded as a relational, contextual and conflictual issue instead of an individual, consensual and empowering one (**Tholen, 2015**). Owing to the limitations of the labour market and the impacts of national differences in skill formation, graduate employability to a certain extent, cannot serve as an absolute notion only related to individual attributes. Employability may be considered as a relative term encompassing opportunities and inequalities in the contrast and comparison among peers (**Brown et al., 2004**). By taking both the supply-side and demand-side dimensions into consideration, McQuaid and Lindsay (**2005**) produced a model assessing graduate employability composed of three interactive attributors: individual factors (largely related to skills); personal circumstances (domestic responsibilities); and external factors (labour market conditions). This model not only disaggregates the different elements which exert impact on employability, but also emphasises their concrete inter-relatedness. Another framework which provides a good contribution to understanding graduate employability in relational as well as absolute terms was developed by Brown, Hesketh and Williams (**2003**). Graduate employability in this model is dichotomised into 'absolute' and 'relative' dimensions. Brown and his colleagues, on the one hand, acknowledge



that employability is a set of individual attributes that should and can be improved through education and training. On the other hand, Brown realises one's employability is also influenced by external factors, for example, the material, social and cultural resources individuals can access and utilise (**Tomlinson, 2008**). By reviewing the existing research, Green *et al.* (**2013**) abstracted the important similarities of the main employability frameworks, adding support systems to them, and thus structured their newly revised employability framework with 'enabling support factors', 'individual factors', 'individual circumstances', 'employer/ organizational practices', 'local contextual factors' and 'macro level factors'. Based on this framework, Green and her colleagues also measured the relative significance of different elements on the employability of young people, older people and migrants.

### **Different national practices in supporting graduate employability**

Graduate employability has become a prevalent topic fiercely discussed by academic researchers and policy makers worldwide as a response to the knowledge-driven economy and society. In Australia and New Zealand, various measurements, for example the National Qualifications Framework (**NQF**), have been taken to stimulate and assess the cultivation of graduate employability (**Barrie, 2006; Kalfa and Taksa, 2015**). In Canada and the USA, several universities evaluate students through work-based/work-related learning criteria (**Cranmer, 2006**). In Europe, nations such as the UK, Finland and Denmark have attempted to embed employability training into curriculum design. Moreover, the European Council (**2012**) set up a benchmark for graduate employability: by 2020, the share of graduates (in the age group of 20–34) being employed within 3 years after they have completed education or training should be at least 82%. In South Africa, the NQF includes two sets of outcomes—'critical and specific'—which contribute to graduates' personal development and the economic development of society (**Harvey and Bowers-Brown, 2004**).

In Asia, Japan's Ministry of Education, Culture, Sports, Science and Technology (**2013**) demands university graduates to possess 'Syugyoryoku' (based on the Seven Survival Skills proposed by Wagner in 2008) for the preparations of becoming socially and professionally independent (**Ito, 2014**). In Malaysia, the government and related departments have conducted several surveys on graduate employability and labour market conditions, showing that Malaysian graduates are

unemployed not because they are unintelligent but rather because most of them lack 'soft skills' (Singh and Singh, 2008). In the Philippines, as one of the most important labour-exporting countries, the purpose of higher education is largely to provide student consumers with the best means to access lucrative opportunities in the job market. As such, colleges and universities are institutions that would not only enhance human capital for national development, but for exporting to other countries as well (Ortiga, 2015).

### **Graduate employability in Chinese contexts**

In the early days of new China when its 'planned economy' was implemented, the difficulty posed by graduate employment did not exist because it was the responsibility of the government to allocate appropriate jobs to the whole labour force (Ren *et al.*, 2011). Furthermore, at that time graduates were seen as a valuable human resource because higher education in China was not particularly well-developed. As such, once people had entered the university system, they were more or less guaranteed elite employments after graduation. In the 1980-1990s, the Chinese economy developed rapidly owing to the 'Reform and Opening' Policy of Deng Xiaoping in 1979, and the demand for graduates became strong. At the time, the rates of university student enrolment and graduation did not greatly increase, and as the government was still in charge of the job allocation of graduates, all graduates could succeed in entering the labour market (Yao, 2008). Since the late 1990s however, the authorities no longer allocated jobs to graduates, and the labour market decided on graduate employment. The dramatic development of a knowledge-driven economy provided a great number of opportunities of graduates to attain high achievements. From 1999, in order to guarantee the talent supply for economic development, to increase consumption to stimulate domestic demand and to meet the national desire to access high education, China implemented a large-scale expansion of university enrolment. Within only two years, the scale of university students in China became second only to the United States, accounting for 1/7 of the world numbers (Yao, 2008). In 2002, the first generation of students who had benefited from the enrolment expansion were due to graduate. As the data shows, the total number of students who graduated from universities in 2002 was 1,450,000, increasing by 23.9% on the previous year's figures (Yao, 2008).

Indeed, it is widely believed the year 2002 was an important turning point for the Chinese graduate labour market. From this date the problem of graduate employment emerged and it has become increasingly serious each subsequent year. Driven by the problem of

graduate employment due to a sharp increase in number of graduates, many Chinese researchers have devoted themselves to exploring the issues relating to graduate employability. Influenced by European researchers, the majority of studies conducted by Chinese researchers analyse graduate employability via two main dimensions: subjective graduate attributors (e.g. **Ren, 2005**) and objective labour market conditions (e.g. **Wen, 2015; Dai, 2014**).

From the perspective of subjective graduate attributors, Yan (**2007**) argued that employability is a set of comprehensive abilities related to occupations, including knowledge, skills, attitude, personality, mental endurance and social adaptability. Xie (**2005**) demonstrated that employability contains basic abilities (e.g. communication, motivation and adaptability), professional abilities (e.g. academic performance and professional skills) and otherness abilities (individuation, innovativeness and creativeness). He considered basic ability as a prerequisite, professional ability as key and otherness ability as a core of graduate employability. Ren (**2005**) proposed that graduate employability includes three levels. The first level is basic working abilities such as IT skills, foreign language, capacities of organising, communicating and teamwork as well as professional ethics. The second level is professional skills, for instance, problem analysing and solving, learning ability and innovation capability. The third level is job-hunting skills including the ability of collecting information, presentation skills and decision-making ability. Summarising the ideas of Chinese researchers who place emphasis on the absolute employability of graduates, there are three main respects contained in this term: individual factors, personal circumstances and individual strategies.

From the perspective of objective labour market conditions, similar to European studies, Chinese researchers also discuss factors that may influence the employment outcomes of graduates, for example, economic conditions (**Sun, 2009; Wen, 2015; Zhao, 2015**), government policies (**Zhang and Jiang, 2009; Fan et al., 2011; Cui, 2015**), gender (**Wu, 2010; Li, 2012; Liu, 2011; Li, 2016**) and background (**Wang and Zhou, 2006; Dai, 2014; Zhang, 2014**). Further a concept of strong Chinese characteristics – ‘guanxi’ (commonly conceptualised as interpersonal ties) - is discussed in particular.

### **Gaps in the field**

Researchers and policy makers in many countries have made efforts to assist with graduate employability enhancement and evaluation. However, almost all existing studies on graduate employability have a

strong national focus, and few concentrate on the increasingly international dimensions of higher education and graduate employability. Chinese international students are the largest group of international students in six countries including the US, the UK, Germany, Australia, Canada and Japan (**EOL, 2015**). The majority of research on these students tends to focus primarily on their experiences of adaptation and integration in a new learning and living context in the receiving countries (**Mathias et al., 2013; Zhou and Todman, 2008; Wang et al., 2011**). The achievements of international students are evaluated in terms of language proficiency improvement, cognitive development, social integration, intercultural ability, and personal growth. Nevertheless, it is worth mentioning that all of these achievements also eventually benefit the transition of individuals to employment.

Some Chinese researchers mention the employability of Chinese overseas students as a part of their study, with a few advances being made in this area of scholarship. For example, Huang (**2013**) explored the importance of future career developments for Chinese students who study abroad. Li (**2013**) investigated to what extent the concepts of employability proposed by Brown and Hesketh applied to UK-educated Chinese students' engagements with global and local labour markets. Nonetheless, there is a great potential to deepen these explorations of how Chinese students understand the relationship between their overseas experiences and graduate employability, as well as how they manage their employability during their overseas learning and living. In addition, previous studies have another substantial limitation in that researchers have tended to regard Chinese students as a homogeneous group. It is not wise to overlook the diversity of students' experiences, even though they are of the same ethnic group and nationality. For instance, socioeconomic status, a variable commonly used in social science research, has rarely been used to categorise Chinese overseas students. It is possibly because most of Chinese students learning in foreign countries, especially Western countries, come from middle-class families (**Mok et al., 2017**). As Goodman (**2008**) suggested, it is unadvisable to describe Chinese students as being from similar 'middle-class' families, especially given that the term could be defined very differently in China. Therefore, it is important to consider students' individual particularities when discussing their understanding of and approaches to employability management.

## **Conclusion**

Graduate employability is a topic that is focused on by researchers, educators and policy makers in many countries, with many achievements having been made in relation to conceptual explorations and practices in assisting with graduate employability enhancement. However, given the globalisation of higher education, international concerns need to be included in studies of graduate employability. Chinese overseas students constitute the largest group in the international student market. An increasing number of mobile Chinese students choose to return to China to develop their career. The connections between international higher education and graduate employment in local labour markets are worthy of further exploration. Such connections not only confirm that international students' investment in their study is worthwhile, but also indicate broader benefits to global higher education.

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# Defining 'Movement' in Global History: The Early Modern Iberian World in a Global Frame (16<sup>th</sup>-18<sup>th</sup> centuries)

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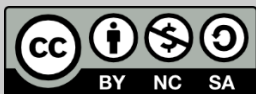
**Abstract** *On 9 June 2017, scholars from a range of disciplines across the United Kingdom and Spain met at the University of Warwick to discuss the ways in which taking a global perspective can enrich research on early modern Iberia and colonial Spanish America. Coming at a time when Spanish exceptionalism is being increasingly challenged but the Americas are still being side-lined in the writing of global history, the presenters addressed gaps in current historiography and challenged Eurocentric narratives of early modern history which have predominated since the Enlightenment. The final roundtable called for definition in the language of movement in global history and concluded that we need to rethink global history as a project that began in the sixteenth century with conceptions of an Iberian or Catholic globe, an orbe hispano.*

Keywords: global; early modern; Iberia; empire; exchanges; migration; circulation

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Spain, Portugal and their former colonies in America are by no means political powers in the globalised world of the twenty-first century. This was not the case between the sixteenth and eighteenth centuries. The first America was not that of the thirteen English colonies in North America, but the one reached by the Spaniards (**Brading, 1991**). The first great overseas expeditions, and the first global histories, were written in the Iberian world.

Since the late eighteenth century, historians have spent much time pondering the reasons why Spain and Portugal declined in influence on the world stage, or why they (and Latin America) failed to enter a modern age along with the rest of Europe. The French Enlightenment and the writers of the *Encyclopédie* proposed that the Iberian states contributed nothing to 'progress' - that in fact, they had historically impeded progress. In the last five decades this notion of 'Spanish

exceptionalism' has been demystified: The rise and decline of the Spanish and Portuguese empires are now seen in terms of historical contingencies, rather than as the result of some intrinsic virtues or flaws (Elliott, 2017). However, a disconnection between global history and what is called 'Latin American history' remains: 'too much global history and too much Latin American history has situated Latin America as marginalized, passive, or a victim' (Brown, 2015: 366). This is particularly true of the post-1800 period but applies also to the early modern period, where Anglophone scholarship still thinks of the Iberian world in terms of 'empires'. The most recent *Cambridge World History* for instance, includes chapters on the Iberian empires and the indigenous American empires (Bentley *et al.*, 2015). While the history of empire is undoubtedly important, there are other global stories to be told. The workshop participants contributed in different ways towards defining a language of movement in global history, which can be broadly defined as a field that seeks to transcend the writing of history based on single nations and regions, primarily through the two dominant approaches of connections and comparisons (O'Brien, 2006).

In the opening paper, Elizabeth Evenden-Kenyon (Brunel University) presented a history of exchanges of Arthurian legends between England, Spain, and Portugal in the sixteenth and early seventeenth centuries. Her paper 'Early Modern printers, exiles, and exchanges between England and Iberia' stressed the role of the translator and the position of exiles within networks in these exchanges. Anthony Munday (1553-1633) emerged as key figure in English responses to the continental versions of Arthurian romances through his translations of the *Amadis of Gaul* and the *Palmerin of England*, which appeared in several English editions starting in 1588. In the Iberian world, the romances were common ground for a discourse of nobility. In England, Evenden-Kenyon argued that the Iberian romances were not merely popular entertainment, but also offered a 'refashioning' of English history, one that crossed confessional divides. Amidst the heightened tensions between Spain and England in the post-Reformation world of the 1580s, and with England's continued friendship with Portugal, the romances could be seen not only as nostalgic views of Anglo-Iberian medieval relations but also as texts that intertwined European Catholicism with English history. A recent monograph stressed similarities between Iberian interpretations of Arthur (Hook, 2015). In contrast, Evenden-Kenyon showed that the different uses of Arthuriana in each context ultimately reveal a concern in the 1580s and beyond with how history ought to be written, when chronicles ought to be considered fable or history. She also revealed the potential for English readers to view Portuguese Catholicism differently to Spanish Catholicism, through the lens of their uses of Arthuriana.

Marina Bezzi (**University College London**) picked up the theme of ‘history of historiography’ in her analysis of the works of travel writers Richard Hakluyt and Lancelot Voisin de La Popelinière. In the 1580s Hakluyt and La Popelinière mobilised Iberian authorities to forge pro-colonial discourses, drawing from a body of Spanish and Portuguese colonial knowledge. In his *Diverse Voyages* (1589), Hakluyt invented England’s role in maritime expansion by recording a conversation with the Portuguese ambassador in London Dom António de Castilho about a Portuguese voyage to the Northwest Passage in 1574. In his *Trois Mondes* (1582) La Popelinière argued that the French should learn from ‘Spanish mistakes’ during their conquests, for which he also relied on Portuguese chronicles. Furthermore, La Popelinière’s *L’Histoire des Histories* (1599) outlined four stages in the writing of history, from the non-verbal kind of the Tupi in Brazil to contemporary Europeans. The result was arguably the first global history of historiography. Thus, Bezzi showed that expanding geographical horizons prompted new ways of writing history, a conclusion which could be placed in fruitful dialogue with scholarship on the creation of knowledge after the encounter of Europeans with the New World (**Pagden, 1982; Cañizares-Esguerra, 2001**).

Moving on from the movement of texts to movement of people, Cecilia Tarruell (**University of Oxford**) presented some unexpected ways in which Muslims, Jews and Eastern Christians settled in sixteenth-century Spain and its overseas provinces. As is the case for most researchers on the early modern Iberian world, secondary scholarship is fragmented and not found in English. Tarruell synthesised Spanish and French findings, pointing out that confessional groups in exile have until now usually been studied in isolation, with some exceptions such as in cosmopolitanism Venice (**Minchella, 2014**). A range of reasons underlay the movement of Islamic people across the Mediterranean, including people fleeing from civil wars and famine, slaves escaping their masters, merchants with previous contacts in Spain, and dethroned kings (**Alonso Acero, 2006; Ruiz Ibáñez and Pérez Tostado, 2015**). A crucial element of Tarruell’s argument was the self-presentation of the Habsburg kings as the universal protector of all Catholics in the world. She explained that the petitions presented to the Spanish authorities by converts from Islamic lands specifically pointed out their desire to live as Catholics, a plea which the kings of Spain could not refuse without contradicting their universal claims. The voluntary movement of these people thus challenges many traditional assumptions about early modern Spain, which is traditionally seen as the land of expulsion and forced conversion of religious minorities.

Pedro Svriz Wucherer (**Universidad Pablo de Olavide**) followed with another global microhistory, presenting a case study of the Guarani militias in colonial Paraguay. His paper engaged with debates of the 'Military Revolution', which are usually confined to early modern Europe. Traditionally, the creation of standing armies were held to be part of the process of European state-building. In contrast, a revisionist view now emphasises a 'military devolution' where European states relied on private contractors to recruit and supply armies and navies (**Parker, 1988; Parrott, 2012**). Svriz Wucherer follows the revisionist line but questions the Eurocentric narrative of the 'rise of the West' through military expansion. He demonstrated that military prerogatives devolved into the hands of Jesuits and Guarani Indians in seventeenth-century Paraguay, when colonial authorities proved unable to defend cities and Jesuit reductions from hostile indigenous tribes and the raiding *bandeirantes* of San Paulo. The mobilisation of troops, at this local level, depended on negotiations between Jesuits, Guarani Indians, and the colonial cities. In Paraguay, as also in colonial Peru, the use of violence was a collaborative affair rather than a centralised enterprise directed from Madrid with standing armies.

The dynamic between centralisation and circulation in global history was a theme of the two final papers. Desiree Arbo (**University of Warwick**) examined the role of the Jesuit order in the trans-Atlantic book trade and the formation of libraries. These subjects have not been studied together with any sustained attention in Spanish American contexts. As a network that operated alongside the official imperial networks, the Jesuits developed an efficient system of acquiring and transporting printed books to support their missionary and educational projects in the Americas (**García Galán, 1995; Martínez-Serna, 2009**). Arbo argued that conditions of the European book market and the curriculum outlined in the *Ratio Studiorum* dictated to an extent the kinds of books sent from Europe, but the demand for books and their circulation in Spanish America varied according to local needs.

In the final paper of the day, Rocio Moreno Cabanillas (**Universidad Pablo de Olavide**) surveyed the reforms of postal services in the eighteenth century. Circulation of information has been shown to be key to establishing global connections (**Conrad, 2016**). Moreno Cabanillas took a comparative approach in her presentation of reforms of postal systems in the British, Portuguese and Spanish empires. She emphasised the contrast between imperial aims and the difficulties in implementing the reforms due to the enormous distances. While the postal systems were perceived as essential to have more efficient control of colonial possessions, the dissemination of information depended on negotiations with local officials.



Moreno Cabanillas raised a methodological concern that resonated with all the workshop participants: the need to consult several archives. This is nothing new for global historians. What is less often observed is that archival materials tend to present different stories. Documents in the *Archivo General de Indias* (**AGI**), for example, reveal Bourbon attempts to control the monopoly of the postal system. Similarly, the *Archivum Historicum Societatis Iesu* (**ARSI**) holds correspondence between Rome and the Jesuit provinces, producing the impression that much of Jesuit activity was regulated by Rome. Many decisions and much of the paperwork, however, stayed at local levels. Thus, American archives tend to suggest a narrative that is about negotiation rather than centralisation. It is only by comparing material from both central European archives and overseas archives that we can better understand the relationship between centralisation and circulation.

Led by Mark Thurner (**ILAS, University of London**) and Julia McClure (**University of Warwick**), the final roundtable addressed ways to define a language of movement that could adequately be applied in the study of the early modern Iberian world. The language we use as historians is highly problematic, which is made more acute by differences between academic traditions. Thus, the ‘Spanish Empire’ of Anglophone scholarship has no equivalent in Spanish academic circles, where the term *monarquía hispánica* is preferred. However, people of the early modern period did not think of themselves as living in a ‘Spanish Empire’. Rather, they perceived themselves as subjects of several Iberian, European, and American kingdoms under the Habsburgs. J.H. Elliott’s seminal 1992 article on composite monarchies already reflected a growing scholarly awareness of the polycentric nature of the Iberian world. Since then Elliott’s model has been refined into one that stresses interconnectedness and questions the model of centre and subordinate peripheries (**Elliott, 1992**). A growing historiography also addresses the fates of the Spanish and Portuguese monarchies in conjunction, using the term *monarquías ibéricas* - ‘Iberian monarchies’ (**Cardim et al., 2012**). This trend was echoed in the structure of the workshop, which ultimately called for a consideration of the polycentric and global nature of this ‘Iberian world’.

‘Migration’ is another problematic term, because it presupposes that people move from one region to another in search of better living conditions. ‘Circulation’ would be more apt to describe the winding and multi-directional movement of people in the early modern period. While ‘circulation’ is well-accepted in French circles, Anglophone readers regard it with certain suspicion as lacking definition, precisely because we still lack a consensus of how to conceptualise movement in global history: Is it about following objects and peoples from place to place, or is global

history a methodological frame of mind, one that is aware of connections between micro and macro levels? The material turn in history has resulted in fruitful enquiry about these questions (**Gerritsen and Riello, 2015**), but they become harder to answer regarding the mobility of people. A focus on tracing the journeys of travellers to establish global connections is not enough: the historian must also consider questions of subjectivity, self-fashioning and local contexts. Thus, 'the close study of a global life drags us back necessarily to a deep, local history' (**Ghobrial, 2013: 59**). Clearly, the potential for microhistorical approaches to global history has yet to be fully exploited (**Trivellato, 2011; Ginzburg, 2015**).

Overall, the roundtable agreed that future research requires interdisciplinarity, collaboration with ongoing projects in different academic environments, consulting archives in several locations, and conducting particularly rigorous examination of micro-historical phenomena before working outwards with global themes and connections. By taking a global perspective nations begin to fade in the background, which is perhaps its greatest attraction for historians. National identities certainly existed in early modern Europe (**Hirschi, 2011**) but we need to be careful of taking 'nations' as the objects of study, lest we create artificial boundaries that did not exist in that time. 'Trans-nationalism' does not solve the problem and cannot adequately be applied to Spanish America before the nineteenth century: it suggests a teleological narrative where nations already existed and were just waiting to become independent from Spain after 1808 (**Cañizares-Esguerra, 2009**). This is especially problematic in colonial histories of Latin American countries, which continue to be written as national histories. Instead of creating anachronistic borders, the papers of this workshop presented an argument for global connections through two main avenues: by studying 'linking nodes' such as networks and paper trails, and by rethinking global history as a project that began in the sixteenth century with conceptions of an Iberian or Catholic globe, an *orbe hispano*.

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# A Pedagogy of Movement: Interdisciplinary Approaches to Human Motion

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**Abstract** *This critical reflection documents a collaboration between an arts practitioner-researcher and a biomedical engineer in the field of interdisciplinary pedagogy. From one perspective, we read movement as a cultural practice engaging theories of embodiment and informed by dance studies; from another perspective, we study movement as a product of internal and external forces acting on the body and we investigate the science behind the structure and function of human motion. This article reflects upon these differences and considers opportunities for new experimentation within interdisciplinary movement studies, in particular, the co-authors reflect upon the various definitions and affordances of the term 'bio-mechanical' and its application to movement and motion capture. The article ends with an overview of the experiments yet to be undertaken within transdisciplinary pedagogy at the Institute for Advanced Teaching and Learning (IATL), University of Warwick.*

Keywords: movement; pedagogy; interdisciplinary; bio-mechanical; motion-capture

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## Introduction

This article takes the form of a critical reflection between an arts practitioner-researcher and a bio-medical engineer in the field of interdisciplinary pedagogy. We begin with an account of the scientific methodology, before proceeding to develop these ideas with perspectives from the arts and humanities. Our dialogue then continues with further reflections on the application of biomechanical research to cultural practices, such as dance and sport. This example gives way to a wider consideration of motion capture in relation to somatic practices and movement studies. The article concludes by identifying experiments within this interdisciplinary collaboration, yet to be undertaken.

## **A Scientific Perspective**

Biomedical engineering is a discipline that delivers state-of-the-art knowledge in engineering, biology and medicine. Its main aim is to apply basic engineering principles and design concepts to medicine and biology in order to improve human healthcare. This field seeks to improve and develop health care treatment, including diagnosis, monitoring, and therapy through cross-disciplinary activities. Areas of interest within biomedical engineering include the study of motion, the deformation of materials, the movement within the body and in devices, and the transport of chemical components across biological and synthetic media and membranes. Engineers use biomechanics to solve biological or medical problems. Biomechanics is the science that studies the internal and external forces that act on the human body and the effects produced by these forces. Knowledge of the anatomy and physiology of the human body is thus a crucial aspect of biomechanics, since it helps in understanding the mechanisms responsible for human movement.

Movement can be defined as the action or process of moving, i.e. the change of position, place or posture. Movement of the musculoskeletal system is usually controlled consciously by humans. However, there is movement in human bodies such as breathing, heart beating, bloodstream etc. that is performed unconsciously (**D'Ostilio and Garraux, 2012**). In this critical reflection, we are dealing with the consciously controlled movement in humans. When a person decides to move a specific part of their body (such as a hand, a leg or a toe), the part of the brain called the motor cortex sends an electrical signal to the spinal cord which then sends out signal pulses to the local nerves. These signals reach the muscles and they result in muscle contraction and initiation of movement. While the movement is performed, a wide variety of receptors in our skin, muscles, and bones provide feedback regarding the speed, direction, and force of the movement. This feedback gets transmitted via nerves and the spinal cord back to the brain, allowing it to co-ordinate, adjust and fine-tune the movement and the body's position accordingly (**Wonderopolis, 2014-2017**).

## **An Artistic Perspective**

Drawing upon theatre practice and performance scholarship to consider biomechanics and movement takes us into a radically interdisciplinary mode. From a modernist perspective 'biomechanics' was a tradition of aesthetic movement and performer training 'associated with the acting theories of Vsevolod Meyerhold... based on external mastery of physical movement, rather than on inner emotional states of empathetic feeling'

(Kennedy, 2010). This tradition is therefore focused upon the actor's physicality and shares elements with acrobatics, gymnastics and non-Western movement forms. Within biomechanics, as a performance practice, collaborative effort and ensemble playing would be encouraged over individualised characters or leading actors. Its legacy can be seen in 'physical theatre' and narrative forms of contemporary dance.

More broadly, the organism of the performer has been placed in opposition to the mechanism of the production across dance, theatre and film. As extensively documented by Joseph Roach in *The Player's Passion: Studies in the Science of Acting* (1993), the modernist body in nineteenth-century performance was imagined as a 'reflex machine' that stages a problem between 'machinery and organisms' (Roach, 1993). Furthermore, early-twentieth century neurologists imagined the brain as a machine constructing organic consciousness, with Santiago Ramon y Cajal being the first to describe the nervous system as 'organic machinery' in 1904 (Salisbury and Shail, 2010). A central concern for theatre studies is how this experimental legacy informs contemporary performance practice (Heron, 2015).

The 'biomechanical' element therefore allows arts practitioners to re-think the human body as experimental apparatus, a sculptural instrument, an aesthetic machine, and in doing so, recall a philosophical history of embodiment that places sensory movement at the heart of meaning-making. Within a tradition of dance scholarship, the shift from 'the documentation of a phenomenon, to problematizing the production of knowledge' (O'Shea and Carter, 2010) has characterised the institution of dance and movement as a discipline in its own right. Within dance studies, as imagined at the turn of the millennium, there were at least four ways of 'reading' human movement: 'anthropology, folklore and ethnography; the writings of expert viewers and dance analysis; philosophy, especially aesthetics and phenomenology; historical studies including biography and dance reconstruction' (2010: 2). While twenty-first century dance and movement studies may have developed new concerns and more nuanced methods, the core practice of studying human movement has been sustained and transformed by digital technologies and collaborative research with the sciences.

### **Biomechanical Engineering and Motion Capture**

Biomechanics in sports and dance can be described as the study of muscular, joint and skeletal activity the body performs when given a task or asked to execute a specific movement (Yessis, 2008). Generally, in order to help an athlete or dancer gain a greater understanding of their



performance, enhance their skills, prevent injuries from happening and assist in rehabilitation, the laws of mechanics applied to human movement are studied (**Bartlett, 1997**). Methods and elements from different disciplines of engineering are used in sports biomechanics in order to define, examine and analyse movement. Examples of these include force sensors from mechanical engineering, force plates from gait analysis, surface electromyography (**EMG**) from clinical neurophysiology, digital filtering from electrical engineering and numerical methods from computer sciences.<sup>i</sup>

When describing movement from a biomedical engineering perspective, it is essential to understand how the human body works by investigating its anatomy. The skeletal system of the human body consists of the bones and their cartilages, together with tendons and ligaments. The skeleton supports the soft tissues, provides attachment points for the tendons of most skeletal muscles and therefore serves as a structural framework to the human body (**Tortora, 2011**). Even though bones form the framework of the body and provide stabilisation, they cannot move body parts by themselves. Motion and movement come from the alternation of contraction and relaxation of muscles. Most skeletal muscles attach to the bones by tough, fibrous tissues called tendons and they produce movement when contracting by pulling the bones down (**Marieb, 2007**). When a muscle contracts, a force is generated; this force then passes through the muscle and its associated tendon and vice versa depending on the movement. This force is responsible for initiating movement in the connected bone and associated joint that are attached to the tendon. Tendons, muscles, joints and bones form the musculoskeletal system of a human body.

Over the years the need for new information on the characteristics of normal and pathological human movement has inspired the evolution of methods for the capture of human movement. The most advanced and frequently used method is 3D motion capture. Marker based motion capture systems use infra-red cameras to track distinctive reflective markers attached to anatomical or geometrical locations of subjects or objects. This allows joint motion in the foot or other parts of the body, to be measured quantitatively during normal function. Also, the position of specific parts of the body can be calculated in 3D space and time. A force plate is used to record the total force exerted on the plate during a dynamic experiment. This helps in identifying the forces transmitted from muscles to tendons and vice versa. In addition to the infrared cameras, several laboratories use digital video (**DV**) cameras that allow the capture of movement in real time in a synchronised way with the infrared cameras, in order to provide a clearer image of the original motion.

Motion capture and videography have been used broadly in modern medicine not only to observe gait analysis, but also to assist in different disciplines. For example, they have been employed in rehabilitation clinics to assist in developing and monitoring rehabilitation programs for patients that have suffered strokes or that have had accidents or suffer from other pathologies affecting their gait and for children with genetic muscular abnormalities. Another field that has used motion capture systems and videography is orthotics and prosthetics where the technology has been used to improve orthotic design prescriptions and to assess the progress of a patient using orthotics during a therapy program. Motion capture systems are also widely used with the assistance of pressure monitors, such as insole pressure sensors, in order to examine and evaluate specific abnormalities and pathologies of the foot such as foot drop (**Switaj and O'Connor, 2008**). Furthermore, motion capture systems are used in films and motion capture movies to create animated figures from the actual movements and facial expressions of the actors. Last but not least, medal-winning Olympic athletes have performed their sports while using these motion capture systems in order to fully understand which muscles they use, what forces act on their bodies when they perform their sport and to investigate the interaction between any one body part and the body as a whole.

### **Performance and Motion Capture**

If capture is to take, to seize or to grasp, then what is at stake when we record movement in this way? One concern here would be the translation of movement from the body to the machine, in ways yet to be fully theorised. When we watch the characters Golem (*The Lord of the Rings*) or Caesar (*The Planet of the Apes*) are we still watching Andy Serkis – the original actor who performed those movements – or are we now watching a hybrid subject on screen, which is neither human nor animation, somehow non-human? It could be argued that the repertoire of embodied human movement is still there in the moving image, in a way comparable to a dancer learning another dancer's moves. Indeed, there is a tradition of scholarly dance analysis, and especially notation, to which we can now turn, to improve our movement literacies on screen.

This allows us to recall the tradition of dance analysis, specifically the influence of Rudolf Laban's work upon the practice of choreographers and theatre artists. Laban Movement Analysis (**LMA**), and its 'system of analysing and recording movement' through 'Labanotation' (**Hutchinson-Guest, 2005**), was developed in order to document and replicate complex dance forms. It has subsequently been used in a diverse range of disciplines and within various body-based contexts: sport, therapy and

medicine. These practitioners have begun to develop a model of Laban's 'effort attitudes' for use by workshop participants within arts education and participatory projects. Their activities are designed to be accessible to all and begin with establishing contact with the floor through posture, alignment and breathing exercises.<sup>ii</sup>

In short, future collaborations should unify work on the science and art of motion, leading to the creation of new laboratories for the 'capture' of creative and complex movement. This work will therefore build upon a modernist legacy of technical innovation in tandem with shifting philosophies of human embodiment (e.g. phenomenology), in order to articulate an interdisciplinary practice for the study of contemporary movement. In preparation for this work, we have identified some questions about methodologies and pedagogies for interdisciplinary movement research:

- 1) How can the study of movement be enhanced through the collaborative perspective of an arts practitioner-researcher and a bio-medical engineer?
- 2) How can this collaboration contribute to interdisciplinary movement pedagogies and transdisciplinary pedagogy more broadly?
- 3) In what ways, and according to which principles, can we plan, design and conduct experiments within transdisciplinary pedagogy?

### **Conclusions and Future Work**

This critical reflection has shown that human motion is of mutual interest to both the arts and the sciences, with reference to performance studies, biomechanical engineering and transdisciplinary pedagogy. We will be working with the transdisciplinary pedagogy of Open-space Learning in which, 'normally stable discipline boundaries are suspended in the interaction of participants' subject knowledge [and where] trans-space exists by virtue of a dialectical process between various thesis and antithesis that in the moment of their opposition create an "open" space in which new syntheses develop' (**Monk et al., 2011**). We therefore predict that our 'open-space' experiments on human motion will develop a new case-study within transdisciplinary pedagogy, especially when integrating research perspectives into a new pedagogy of movement. Locating these experiments within a cross-faculty environment will enable this investigation to transcend methodological boundaries and, over time, achieve better pedagogic outcomes for Warwick students. In order to address the questions raised above, we will adapt models of practice developed through the IATL Student Ensemble and within the department's interdisciplinary modules.<sup>iii</sup>

<sup>i</sup> Usually, force sensors are transducers that convert an input of a mechanical force into an electrical output signal. Force plates are measuring instruments that measure the ground reaction forces generated by a body standing or moving across them. Surface electromyography is a technique where electrodes are placed on the skin overlying a muscle in order to identify the electrical activity of the muscle in question. Digital filtering is a mathematical operation used on a discrete-time signal in order to reduce or enhance certain aspects of that signal. Numerical methods are mathematical tools like 'algorithms' designed to solve numerical problems. Force sensors, force plates and surface EMGs are used during biomechanical experiments, while digital filtering and numerical methods are used when analysing the experiments.

<sup>ii</sup> For example, during a recent workshop at the University of the Pacific (Stockton, California, USA), Lisa Tromovitch hosted an event that sought to develop Laban's method within the contemporary framework of movement skills for motion capture. In collaboration with Gina Bloom (UC Davis, USA), Katie Brokaw (UC Merced, USA) and Jonathan Heron & Paul Prescott (Warwick, UK), educators developed new ways to explore Shakespeare's *The Tempest* through practical movement exercises and digital technologies of motion capture. One important finding on that day (27 April 2017) was that Laban's 'efforts' had a new application within the world of motion capture, especially as they represent an open system and a movement vocabulary for all kinds of human play, even when mediated.

<sup>iii</sup> For examples of institutional practice informed by Open-Space Learning, please visit IATL's webpages at: [https://www2.warwick.ac.uk/fac/cross\\_fac/iatl/](https://www2.warwick.ac.uk/fac/cross_fac/iatl/).

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# China Plates and Japanned Trays: British Encounters with Chinese and Japanese Aesthetics in the Long Nineteenth Century

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**Abstract** *This is a 'Critical Reflection' piece on the research seminar 'China Plates and Japanned Trays: British Encounters with Chinese and Japanese Aesthetics in the Long Nineteenth Century', which was held at the University of Warwick on 20 March 2017. The guest speaker was Dr Jenny Holt (Meiji University). In this seminar, we discussed how the British public responded to the increased availability of Chinese and Japanese art objects in the nineteenth century.*

Keywords: aesthetics; Britain; China; Japan; nineteenth century

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In the second half of the nineteenth century, decorative objects from China and Japan became more widely available in Britain, thereby encouraging British consumers to conflate the names of these objects with the names of their countries of origin ('china' for porcelain plate; 'japan' for lacquer ware). How did this increased exposure to Chinese and Japanese art objects – and the distinctive forms of aesthetics that these objects manifested – affect the production of British art and literature in the nineteenth and early twentieth centuries? Can we compare British responses to Chinese art with British responses to Japanese art? How can such comparisons help us understand the ways in which Britain engaged with China and Japan not only as individual countries, but also as part of a regional entity we might call 'East Asia'?

These are some of the big theoretical questions about British attitudes to Chinese and Japanese art objects that 'China Plates and Japanned Trays' attempted to address in a 1.5-hour seminar with Dr Jenny Holt. Jenny Holt is Associate Professor in English Literature at Meiji University, Tokyo. Her research examines Anglophone writing on Japan in the nineteenth and early twentieth centuries, the travel writing of Isabella Bird and Victorian children's literature. At the seminar, we discussed two extracts from Holt's current monograph project, *Utopians and Samurai: Representations of Meiji Period Japan in English Literature*, as well as an

extract from Elizabeth Hope Chang's *Britain's Chinese Eye: Literature, Empire, and Aesthetics in Nineteenth-Century Britain* (Chang, 2010). The readings were circulated to participants before the seminar.

This article will provide a brief overview of the discussions that occurred during the seminar. Holt began the seminar with a short presentation on the wider theoretical and methodological concerns underpinning the two extracts from her monograph, 'A Lesson to the Western Barbarian: Culture and Civility in British and American Debates on Japanese Decorative Art during the Meiji Period' and 'Distressed Micropsia: Size Distortion and Psychological Disturbance in *Unbeaten Tracks in Japan* and Subsequent Travel Literature of the 1880s and 1890s' (Holt, 2017a). Holt observed that Japan does not fit neatly into the Manichean categories of coloniser/colonised and dominant/subordinate, which have dominated critical discussions of Orientalism. Holt showed that, far from belittling Japan as the backward 'Other' of the Western imperial powers, many British and American cultural commentators in the nineteenth and early twentieth centuries held Japan up as an example of a worthy civilisation. These commentators, Holt argued, often saw similarities between British and Japanese society, or they championed Japan as a utopian alternative to the decadence of the West. For the purposes of the seminar, Holt focused on how art enthusiasts such as Rutherford Alcock, who was the British Consul General in Edo (Tokyo) from 1858 – 1862 and 1864 – 1865, and the American art collector James Jackson Jarves, contrasted Japanese aesthetics to what they perceived as the crass and effeminate taste of the British and American middle classes. To these art enthusiasts, the 'Spartan simplicity' of Japanese aesthetics represented the antidote to all the social and aesthetic crises of the fin de siècle: middle-class vulgarity, working-class dissent, mass production and consumption, the feminisation of men, and the decline of Western civilisation.

After Holt's presentation, I gave a ten-minute position paper on Chang's book *Britain's Chinese Eye* (Chang, 2010). The extract that we had chosen for this seminar was the second chapter on porcelain. In this chapter, Chang claims that the ubiquity of china (porcelain) in Britain in the nineteenth century led to the British public perceiving china as an object that encodes a 'Chinese' way of seeing. The use of non-linear perspective and size distortion in the pictures painted on china function, Chang contends, as a challenge to the British aesthetic tradition of realism. Whereas British artists and writers in the early nineteenth century grappled with this challenge, British artists and writers in the latter half of the nineteenth century turned increasingly to the anti-realist aesthetics of china to create innovative works of art and to distinguish themselves as an artistic avant garde. In my position paper, I discussed



how Chang's book raised theoretical questions about the particularity of Britain's relationship with China in the nineteenth century. Chang is essentially outlining a 'genealogy' of non-Western aesthetic influence on Euro-American modernism, in which China came before Japan and then Africa as the 'pre-eminent visual and geographical counterpart to Euro-American visual and literary modernism' (Chang, 2010: 179). Chang's argument is persuasive, but the distinctions she draws between British engagements with China and with Japan are hard to maintain. At this point, Holt and I encouraged the participants to discuss these issues in the light of the two presentations on British engagements with Japanese and Chinese aesthetics.

We discussed how Chang's 'genealogy' becomes unstable when we consider how Japan, like China, had been exporting art objects (such as lacquer ware) to Europe long before the nineteenth century. Moreover, Britain traded with both China and Japan under the rubric of the treaty port system in the second half of the nineteenth century. As a result, the British public was exposed to both Chinese and Japanese art at the same time. One of the participants noted that Chinese and Japanese merchants also traded art objects with one another, which made it difficult for British merchants to determine the provenance of the art objects they imported. We discussed how this might have contributed to the blurring of distinctions between China and Japan in the Western imagination of 'the Far East', which persists today. One of the participants also brought up the fact that many of these Chinese and Japanese art objects had been made to order for Western markets for centuries, and that their designs had been modified to suit the tastes of Western consumers. This meant that what British and American consumers perceived as 'Chinese' or 'Japanese' aesthetics was in fact a hybrid form. While discussing these complexities, the participants acknowledged that Chang's 'genealogy' has a material historical basis insofar that Britain had established trading and diplomatic relations with China first, while Japan remained closed to most of the Western world until the 1850s. These are the structural reasons why China comes before Japan in Chang's genealogy, even if the circulation of art objects complicates this linear chronology.

In our discussions, we also touched on the paintings of James McNeil Whistler, one of the artists Chang discusses in the extract on porcelain. Whistler's paintings regularly featured both Chinese and Japanese objects (such as blue and white china and Japanese fans and screens) and drew on principles of composition and colour in both Chinese and Japanese *ukiyo-e* woodblock prints. The striking similarity between Holt's description of British, and more broadly Western, attitudes towards Japanese art and Chang's account of British perceptions of Chinese art raises the prospect of comparing these responses. The participants noted

that both Holt and Chang emphasise the impact that the use of non-linear perspective and size distortion had on British art in the nineteenth and early twentieth centuries. Holt clarified that this British fascination with perspective in Japanese art was limited to the reception of woodblock prints, and was not extended to other kinds of Japanese decorative art such as ceramics, which were valued instead for their 'Spartan simplicity'. The discussion raised the possibility that Chang's notion of antithesis and her category of the 'anti-realist' are too broad to be useful in identifying the specificities of cultural relations between Britain and China, or between Britain and Japan. As one of the participants noted, the categories we use to describe cross-cultural interactions are often inadequate in capturing the nuances of these interactions.

We look forward to continuing these discussions at the 2018 MLA Convention in New York City, where Holt and I will be participating in the Working Group on 'Literature, Aesthetics, and Cultural Exchange between East Asia and Southeast Asia and Britain and North America in the Long Nineteenth Century.'

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# Academic Freedom and Society: Some Critical Questions

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**Abstract** *A review of a recent one-day conference, Academic Freedom and Society, held on June 2 2017 at the University of Warwick, which sought to pose questions about ideals and practices of academic freedom, historically and in the current moment, across disciplinary and national borders. Speakers discussed the university and human rights practices, Islamophobia and teaching law, 'Decolonise the University', links between funding and research, digital piracy, new sites of knowledge commons, and university managerialism, and the challenges and possibilities these topics pose to the practice of academic freedom. Has the university ever been autonomous from state interests, and what modes of freedom are currently available to academics – already unevenly contingent on social and national identifications – in practice?*

Keywords: academic freedom; global history; decolonisation; human rights; law; cultural production

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How can the history and philosophy of academic freedom and its representations in culture inform us about current debates about the place and function of the academic in society? This one-day conference sought to pose questions about ideals and practices of academic freedom, historically and in the current moment, across disciplinary and national borders. The three keynote speakers – Bruce Gilbert (**Bishop's, Canada**), Shaheen Sardar Ali (**Warwick**), and Robbie Shilliam (**QMUL**) – provided touchstones for discussions throughout the day, while three panels focused on ideas of the university; property, knowledge and data; and university, commons and state. One of the central questions of the day was not the erosion of academic freedom, but whether it has ever existed in practice; discussions moved from the university constructed as a sacred space for the pursuit of truth, to addressing *a priori* exclusions that academia has always fostered along lines of race, gender, sexuality and religion, as well as how universities continue to function as laboratories of knowledge and practices in which various kinds of exclusion are both manufactured and reproduced.

Bruce Gilbert began the conference with a central challenge to the contemporary Western academy: if the Humanities have dismantled the pursuit of 'universal truth' over the two past centuries, then what is the measure of 'good speech' and 'the good'? He outlined three phases of the Western academy: first, the Aristotelian model of higher education, in which church and state acted as benefactors and guardians of the university, and the utility of universities lay, in part, in their ability to help nations promote national interests in the context of the sacred pursuit of a divine truth. Second, with critiques from authors like Nietzsche and Marx on the metaphysical conception of universality – Nietzsche describing truth as 'a mobile army of metaphors, metonyms, and anthropomorphisms' (1873: 3) – the idea of attaining absolute truth began to evaporate. Consequently, the idea of the university as a sacred space designed for truth-seeking, and further, for the defence of academic freedom as such, begins to dissolve. For Gilbert, we find ourselves now in a third phase characterised by the problem of how to defend the university as a site of 'good speech' after the epistemological revolution of post-metaphysical philosophy. The answer, Gilbert suggests, is to give up the dream of sacred universality, towards the ambivalence of human rights, the contradictions and contingencies of living in the world. Drawing on his experiences as an activist in post-colonial land struggles in Brazil, he suggested adopting the human rights tradition for the purpose of collective transformation. For Gilbert, the 'good speech' the university can facilitate consists in the mutual recognition of individual and collective agents in what is an undeniably global village.

Johannes Niederhauser (**Warwick**) began the panel on *Ideas of the University* with a talk on the concept of *Bildung* in the Humboldt university ideal: the idea of self-activity or self-cultivation that also involves breaking even, or making a surplus, of growth and expansion. The telos of this ideal is wholeness and totality, and the role of the state is one only of funding, rather than intervention. Yet, Christopher Ivins (**Warwick**) argued in his paper, 'Why Have the Universities Stopped Teaching the Meaning of Life?', in practice, universities are prime movers in the twenty-first century knowledge economy. Drawing on Marina Warner's critique of the 'disfiguring of higher education' under new managerialism, Ivins discussed what Warner calls 'the robotic idiom of management' with its emphasis on economic performance which, Warner writes, 'superimpos[es] the imagery of the market on the idea of the university' (2015: 4). As debt-carrying consumers, students become preoccupied with the immediate requirements of assessment, asking questions of 'now', restricted to the present demands rather than free(r) to hold off evaluating their own learning experience in years to come, and to learn instead the limits and structural restrictions of this

experience; what Ivins calls ‘teaching ignorance’. Simon Grimble (**Durham**) addressed the relative silence of the wider academic community in pushing back against the effects of the 2010 Browne Review. He identified a carrot-stick mentality in contemporary UK universities, particularly among mid-career academics, invariably submerged in balancing the minutiae of administration with research. Against this, Grimble set the call in Stefan Collini’s work to escape a ‘mission-statement present’: the responsibility to make space in the academy for bringing together thinking and feeling, a variety of tones and styles. Contrary to the Humboldt ideal, there is a failure in the current climate to defend the right to extend human capacity, and a need to develop public-mindedness in relation to what is happening.

The second panel, *Property, Knowledge, Data*, moved more explicitly to issues of research and/as corporate profit, and the fragile relationship between private profit and public knowledge in academic publishing. Hannah Hickman (**Sheffield**) tackled the topic of uneven access to academic knowledge, despite the utopian promises of digitalising information. Suggesting digital piracy as a way to resist corporate capture, she posed SciHub as an experimental model for abstention from this market, while attentive to the obvious limits of such an approach. What is required, she argued, is a deeper engagement of academic producers with the political economy of their own knowledge dissemination. Felipe Figueroa Zimmermann (**Warwick**) spoke on ‘Academic Freedom, Intellectual Property and the Autonomy of Cultural Production’, intervening in this discussion of autonomous/extra-institutional knowledge circulation by asking: how and when did intellectual property become a threat to academic freedom? The vision of a free and open internet in the model of Creative Commons – as espoused and developed by, among others, the programmer and activist Aaron Swartz – has been aggressively resisted by a matrix of corporate and state powers. In this increasingly privatised information economy, he argued, the ideal of general access under the principles of public interest has all but disappeared, and particularly when it comes to the expansion of the research university in the direction of industrial science. As Clémence Pinel (**KCL**) outlined in the following paper, a spirit of entrepreneurship often motivates researchers in biomedical science laboratories; taking the example of current studies in epigenetics, she explained that research questions are frequently driven by what is considered high impact, attractive for big grants, and will make good headlines in famous science journals.

Shaheen Sardar Ali extended the geography of secular humanist learning in describing her experiences of teaching ‘Islamic law’ in UK universities. She discussed both the long history of the construction of what is called

‘Islamic law’, as well as some of the challenges of teaching it in both Pakistani and British universities. ‘Islamic law’, she explained, is a colonial invention, an agglomeration of transcriptions gathered by imperial proto-ethnographers as they travelled on horseback through the then-far reaches of the British Empire. In one village, they might encounter a particular marriage custom or death ritual; in another, a set of entirely different protocols. The implications of this for colonial knowledge production in the contemporary British university are immense, and for this reason, Ali emphasised that it is important to teach law in context, critically and robustly, rather than becoming an apologist for religion. Understanding Islamic law as the historical narrative made up of multiple sources – pre-colonial, tribal, colonial and post-colonial – helps students to understand the contingency and strategic deployment of both Islamist and Islamophobic rhetoric in contemporary global geopolitics.

The final panel, *University, Commons, State*, explored connections and conflicts between the university, civil society and state power. Richard Elliott (**Edinburgh**) questioned the efficacy of what he termed ‘student-led changes’ to core curricula in the wake of the recent ‘Decolonise the University’ and ‘Rhodes Must Fall’ campaigns, raising concerns around what he saw as the politicisation of university curricula; the ensuing debate in the question session echoed a wider set of concerns about a general amnesia in European national histories regarding European imperialism, and the importance of such campaigns in uncovering colonial legacies embedded in the functioning of modern universities. Mike Finn (**Warwick**), speaking on ‘The Question of the State’, challenged the notion that universities are (or should be) separate from the political sphere. He argued that while it may seem that ‘things just happen’ in administration meetings and department decision-making, the constant pace of reform in neoliberal universities means that British higher education has been imbricated in political crises for a long time. For him, state steering has led to an atmosphere in which a work-force of individualised academics willingly engages in its own subordination. Far from the university remaining at a safe distance from state interference, academic freedom is by definition a political value, whose protection demands robust and long-term public defence. Rather than confining critique to abstractions in seminar rooms, Finn proposed working towards the critical university as a lived reality, rather than participating in a culture of self-censorship.

Robbie Shilliam ended the day with his keynote address on ‘How Black Deficit Entered the British Academy’. Some of the questions raised in the discussion of the importance of ‘Decolonise the University’ and ‘Rhodes Must Fall’ in decolonial practices were explicitly returned to, as Shilliam worked his discussion of the current BME attainment gap in UK Higher



Education into the argument that the British academy not only reflects but also reproduces racialised social exclusion, a laboratory for cultivating a mythology of Black cognitive deficiency, rather than an instrument of social mobility. Structuring his discussion around three historical moments – ‘mute abolitionism’, colonial development and post-war race relations – Shilliam charted the rise of social anthropology as a discipline to aid urbanisation in both the UK and British-occupied Africa by constructing a mythological ‘black people’. Post-war race relations in the U.K. can be viewed, he argued, as a surrogate to the colony-metropole equivalence under colonial development of rural agricultural land to urban centres of production. This history is one of the cultivation of dependency; in the contemporary British university, this emerges as Black aspiration dependent on white acceptance. Shilliam ended his talk by asking what might be required to change the social reproduction of these colonial dispositions. We need, he suggested, to look both within – to what has been left unchanged in the university, and outwards – to community-based institutions, and Black scholarship outside the academy.

One of the original aims of the conference was to draw together different disciplinary approaches to questions of academic freedom in universities; all the papers of the day carried a common thread of scepticism about the future of higher education, and a sense of urgency about the role of the academic in confronting various – often seemingly benign – forms of corporate and state regulation. This outward resistance should be combined by looking inward, placing a spotlight on forms of teaching and learning that either ignore or contribute to the fossilisation of unacknowledged inequities of race, gender, class and sexuality as they play out in classrooms, lecture halls, and across university campuses. The university has not so much provided a sanctuary from the violence of modernity, as it has cultivated and housed its epistemological conditions. The crisis of neo-liberal managerialism can be understood, then, as only the latest manifestation of social and political constraints which, in practice, the university has always functioned within. If academic freedom remains an ideal for modern universities, however unattainable or impossible, then it is both critical to cultivate a better historical understanding of the fragile and narrow foundations on which such freedom has been based, and also to open up this ideal to opportunities for free and public learning.

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# Ph.D. Researchers in a Changing World: A Self-Critical Reflection of the CES Conference 2017

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**Abstract** *The theme of this year's Centre for Education Studies Interdisciplinary Postgraduate Conference, now in its fifth year, is 'Education in a Changing World'. I attended the conference as a paper presenter and a conference attendee. My personal goals were to develop confidence as an oral presenter, seek professional development opportunities, and engage critically and reflectively with my work and the work of others. My relativist epistemological beliefs define knowledge as uncertain, context-bound, fallible, defeasible and therefore changeable, and are compatible with my personal goals. Both the goals and beliefs led to the adoption of knowledge co-creator, communicator, and analyst roles. Beliefs, goals and adopted roles led to the identification of points of fallibility in my own knowledge and understanding of the phenomenon of interest. Therefore, I formed a perspective of conferences as enabling and facilitating knowledge construction between presenter and audience. Being reflective, critical, adaptable, creative, intuitive, flexible, and open minded are key attitudinal attributes of postgraduates, leading to positive conference experiences and increased self-awareness of own emerging identity as a social scientist. Increasing self-awareness of own identity is important for graduates, as on a broader scale this assists in keeping pace with an ever-changing world.*

Keywords: reflections; conferences; professional development; thesis; presentation; attendee

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## Introduction

I attended the 5<sup>th</sup> annual Warwick University Centre for Education Studies Interdisciplinary Conference 2017 as a paper presenter and as a doctoral researcher attendee from the Centre for Education Studies at the University of Warwick. The annual conference hosts a variety of graduate paper and poster presentations that showcase a diverse range of research designs, classroom teaching and learning approaches, and

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policy debates within a broadly defined theme. With the theme 'Education in a Changing World', this year's conference attracted a multitude of poster and paper presentations that illuminated the challenges that Education faces in an increasingly diverse world.

My paper presentation consisted of initial, tentative analysis of two short argumentative dialogues, each consisting of four participants. These took place in an online discussion forum known as The Student Room. One exchange referred to the impact of not being within the Schengen Zone, whilst the other referred to Quality and Quantity Control of EU Migration. The aim was to analyse the post-truth suggestion that there is a shift in the purpose of argumentative exchanges from seeking objective truth to defending propositions through appeals to emotion. The search for objective truth therefore does not go beyond the perspectives and emotions of the participant, with little consideration for or engagement with alternative perspectives and approaches as provided by other participants. Both exchanges form a much wider part of the data set for the Ph.D., the main objective of which is to develop a new theory that evaluates the quality of argumentative dialogues. Throughout the conference, I reflected deeply on the relationship between my epistemological beliefs and their impact on my experiences of the conference. I developed a series of questions based on the discussion of the epistemology of conferences by Skelton (1997). The questions were: what are my conceptions of knowledge? How do these conceptions impact on my engagement with conferences? How do the conference experiences contribute to thesis development and professional development planning?

This article is written, therefore, to provide critical, descriptive and explanatory accounts of my experiences as a paper presenter and a conference attendee at the Warwick University's Centre for Education Studies Interdisciplinary Conference 2017. My experiences shall be supported and critiqued through referencing relevant literature, and I shall explain how these experiences relate to thesis development and professional development planning. The rest of this article shall be organised as follows: reflective and critical accounts of my experience of being a paper presenter and reflective and critical accounts of my experience of being a conference attendee. A conclusion section situates my experiences within the wider field of graduate experiences, graduate and academic identity, and development of identity.

## **Attending as a Paper Presenter**

The 5<sup>th</sup> annual Centre for Education Studies Interdisciplinary Conference 2017 was the first time I had ever presented a paper. Although initially I felt a little nervous, practicing the presentation multiple times not only reduced my nerves (**Greene, 2015**) but also assisted in developing step by step accounts of patterns and sequences found within the argumentative dialogues. Each account began with describing the type of content within the initial post. I then explained how the second participant initiated an argumentative exchange through offering either a challenge to a claim or an argument against the reasoning or evidence used. Then, I discussed how the exchanges were maintained through cycles of challenges, rebuttals and counter-arguments.

I created a PowerPoint with animations to assist with explaining the argumentative exchanges. Whilst Senese (**2010: 4**) argues that the aim of Power Point is to 'enhance a presentation not be a presentation,' I feel that PowerPoints assist with visualising the process of argumentative dialogues through animations and diagrams, which is not possible with verbal descriptions. Visual aids complemented my verbal descriptions and explanations, which I felt led to the reduction of audience misinterpretation of argumentative sequences and actions of argumentation. Explanations were constructed using non-technical language as it was assumed that not all members of the audience, despite their interest in the content, would understand technical terminology. My self-confidence improved through continuous practicing and development of suitable explanations of the step by step process of argumentative dialogues. During the presentation, I realised that I could deliver confidently if I practiced several times before the presentation.

The audience were largely welcoming of the presentation, and engaged critically through a question and answer session, and through providing written feedback to evaluate my presentation and to suggest improvements. Given the time restrictions, I adopted a suggestion from Gupta and Waismel-Manor (**2006**) to address and reflect upon the most significant and reoccurring themes. The most commonly occurring theme was the context of argumentative dialogue. Within this theme, suggestions referred to enhancing audience understanding of the argumentative process through increasing the scope of contextual descriptions. Their verbal suggestions were labelled as follows: descriptions of the online platform on which argumentative dialogues took place, justification of platform selection, and descriptions of the topic of the debates. Another theme, explanations and possible hypotheses of argumentative patterns, also occurred but not as frequently. The suggestions raised regarding the context were also

raised in the written feedback with the following additional labels: firm definitions of argumentation, reasons for research, and the urgency and need for the research.

My epistemological beliefs enabled me to adopt the role of knowledge co-creator. I used oral discussions and the written feedback to locate points of fallibility in my understanding of the phenomenon of interest. Understanding and knowledge were reformulated, leading to further development of the background and literature review chapters, and restructuring of any future presentations on argumentative dialogues. The extra background chapter sections are as follows: definitions of argument, argumentation and argumentative dialogue; topic of debate; urgency and need for the research; comprehensive comparisons between different online discussion platforms, and the nature of argumentative dialogues. The literature review shall further explore contextual differences of argumentative dialogues reported in empirical literature. Considerations shall include the impact of different debate questions and the nature and content of the topic upon argumentative dialogues. Additionally, for the discussion chapter, existing empirical findings regarding online argumentation shall be compared with the theory that emerges from the data as a form of theory validation and verification. Providing more detailed information about the context of my Ph.D. and argumentative dialogues within the thesis is expected to aid with reader understanding of the process of theory development. This greater understanding is expected to reduce the likelihood of misinterpretation and misunderstanding of findings.

Future presentations shall be restructured so that the audience is fully informed of the context of the argumentative dialogue before discussing and explaining the findings. Whilst it is expected that this shall reduce confusion about the context and nature of the argumentative dialogue, I would still welcome questions and debates about the importance of context.

In accordance with the six themes defined in the professional development framework at the University of Warwick, the experience of being a paper presenter contributed to professional development planning of the Personal Effectiveness, and Impact and Public Engagement themes. For both themes, restructuring the presentation and devising ways in which to present more complex argumentative dialogues and sequences shall arguably increase audience engagement. Presenting future findings as they emerge to audiences outside of academia would also increase my confidence, versatility and adaptability as an effective communicator. This is important, as being an effective communicator is increasingly becoming a part of the identity of a social

scientist (Tomazou and Powell, 2007). I therefore intend to engage with formal communication courses provided by the University of Warwick and other external agencies in order to improve my Power Point and general communication knowledge, skills and techniques.

### **Attending as a Conference Attendee**

My epistemological beliefs entail acceptance that critical and reflective engagement with conference presentations could illuminate points of fallibility in my knowledge, leading to the defeasibility and reconstruction of knowledge (Lehrer, 1990; Klein, 1971). Conferences, therefore, are perceived as facilitators of knowledge reconstruction (Wiessner et al, 2008; Vries and Pieters, 2008), critical reflection, and the critique, verification and validation of claims. The steps involved with my approach to engaging with the presentations of others, and conference experiences in general, were similar to the steps described by Wiessner et al (2008). These steps include: acknowledging and evaluating new knowledge and ideas; comparing new ideas with existing ideas; testing results of comparisons through conversations with presenters, and integrating new ideas and reformulating understanding of the phenomena of interest. Following this process, the reformulations assisted with further thesis development and professional development planning.

For the purposes of seeking to engage reflectively and critically, which led to a change in my understanding of research phenomena of interest, two out of the six presentations attended stood out. They were titled 'Education in a Changing World: The Investigation of the Theory-Practice issue for Acupuncture Education in the UK' and 'Research in Emotional Intelligence among Clergy and Future Directions'. Both presentations challenged and changed certain assumptions that I held. Firstly, that emotions were irrelevant because it was assumed that the nature of argumentative dialogues were inherently objective. Secondly, as my research is not situated in any physical educational establishment, theory-practice relationships were considered irrelevant. During the emotional intelligence presentation, the presenter explained that objective, rational, truth seeking discussions occur when participants are aware of their own emotions and manage them accordingly. Upon confirming ideas with the presenter, I have decided to consider the impact of emotions and the value of emotional intelligence when exploring and explaining patterns of argumentative dialogues. As for the theory-practice relationship presentation, part of the presentation provided a focus on the inadequacy of the relationship between theory and practice of acupuncture education in the UK. I then began to realise



the importance of engaging with debates about the theory-practice relationship, leading specifically to considerations of the difference between theories of evaluating online argumentation and how evaluation takes place in practice. The presenter confirmed that all Ph.D. candidates in Education must be able to discuss how their theory or theoretical contributions can be applied in practice, and provide enhancements to existing practice.

These presentations have influenced potential directions of several thesis chapters. Regarding the literature review, emotional intelligence's relationship with argumentative dialogues and wider educational practice shall be critically analysed and evaluated. Further, analytical models related to analysis of arguments and knowledge construction shall be reconsidered with regards to measuring emotional content and its impact on dialogues. Also, theory-practice relationship literature shall be explored with regards to considering how existing evaluative models of argumentation have been applied in educational practices. As for data analysis, emotional content shall be coded, and relevant hypotheses shall be developed and tested against the continuously collected and analysed data.

With regards to my professional development planning, in accordance with the Professional Development Framework developed by Warwick University, focus shall be placed on categorical theme of Broadening Your Academic Skills. I shall investigate emotional intelligence by taking relevant courses, and critically and reflectively engaging with existing relevant literature. This is expected to lead to the emerging theory becoming a closer representation of the reality of argumentative dialogues.

### **Concluding Thoughts on the Conference**

On a broader level, my experiences have encouraged me to ask the following question: how can conference experiences shape a graduate's emerging identity and be viewed as a valued part of their general graduate experiences? McAlpine et al (2009) classified doctoral experiences under three categories: formal, semi-formal, and informal. The authors argue that the purpose of exploring informal activities is to develop full understanding of doctoral experiences, and to understand informal activities as a means of 'contributing to students' sense of identity in relation to be(com)ing an academic' (McAlpine et al, 2009: 98). My experiences indicate conferences facilitate the occurrence of unplanned discussions with colleagues and the supervisor, as well as supporting the occurrence of serendipitous learning (Gadecki, 2001).

Additionally, my experiences indicate that conferences facilitate knowledge sharing and construction (**Wiessner et al, 2008; Vries and Pieters, 2008**) and interactions with unfamiliar information (**Haley et al, 2009**). Conferences are therefore considered informal, but their informal nature should not negate their potential value as effective spaces and enablers of graduate reflective and critical engagement.

My conference experiences and my epistemological beliefs enabled me to become aware of my emerging and changeable identity as a social scientist. The experiences of being a paper presenter and a conference attendee led to the adoption of various, oscillating roles to suit the activity. As a paper presenter, I adopted the role of knowledge co-creator and communicator, and as a conference attendee, I adopted the role of critical, reflective analyst. I felt a sense of being an academic through this cognitive, intellectual engagement with other people and with ideas, which reflects literature that explores graduate perceptions of becoming an academic (**Jazvac-Mertek, 2009**) and characteristics of being a Ph.D. graduate (**Chenevix-Trench, 2006**). Our identity and conceptions of ourselves as researchers, along with our sets of skills, knowledge, aptitudes, and attitudes are not absolute and certain. They are continuously changing and developing as we as graduates encounter different activities and experiences. Graduate identities, and academic identities in general, are dynamic and changeable relative to our perceptions and experiences within our wider research communities (**Clegg, 2005**).

Research has shown the importance of graduates possessing suitable mental skills, passion, appropriate state of mind, and a positive mindset to encounter positive conference experiences. In a study of faculty and graduate perceptions of graduate attitudes, Gardner et al (**2006**) developed the theme Habits of Mind. A graduate's habits of mind include holding a curious mind and being in a state of wonderment; of being autonomous, self-directed researchers; and, being receptive and reflective of feedback. Gardner et al (**2006**) also reported various skills that graduates should possess: analysis, evaluation, effective verbal and communication skills, and ability to converse with a variety of audiences. These skills are similar to characteristics of an open mind (**Greene, 2015**). Additionally, the findings of Haley et al (**2009**) indicate that if an attendee lacks the passion and interest of the theme of a conference, they are unlikely to gain any positive social or cognitive experiences. More broadly, these habits of mind and passion for research shall enable the graduate to experience any graduate activity or event positively and productively. Additionally, my experiences have shown the importance of epistemological beliefs. My epistemological beliefs enabled me to experience conferences as a platform for reflective and critical

engagement, for effective knowledge sharing and synthesis, and for knowledge integration and reformation of conceptions.

Conferences, therefore, as an informal academic experience, provides effective social and cognitive spaces. Conferences facilitate the use and development of graduate skills and attitudes as long as we as academics engage ourselves socially as well as cognitively. Engaging with conferences critically and reflectively has enabled me to self-assess and make judgements on my current knowledge and skills. Self-assessments and the ability to make quality judgements on what we as researchers know has been highlighted as key doctoral skills (**Baker, 2010**). Essentially, graduates must be adaptable, creative, intuitive, flexible and open minded to the different social and cognitive encounters throughout their conference experiences. Graduate epistemological reflections should also be considered an important aspect of graduate practice and should form a part of the emerging identity of a researcher of the social sciences. Therefore, graduates should reflect on their epistemological beliefs, and the way in which these beliefs might impact on their goals and experiences of a conference. In order to increase effectiveness of their reflections and critical engagements, graduates must continuously seek opportunities to reflect upon and build their skills and knowledge as part of their professional development (**Rudd et al, 2008; Vitae, 2008; Nerad, 2015**).

More broadly, possessing and developing such skills and behaviours shall enable the graduate to become a fully-fledged social science researcher, and to be able to adapt to continuously changing political, economic, social and cultural contexts and climates. Further, developing self-awareness of identity increases a graduates' chance of identifying their place in a changing world, and how they can reposition themselves to take advantage of the opportunities that a changing world affords them as researchers.

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# A Critical Reflection on the 28th International Biology Olympiad

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**Abstract** *The 28th International Biology Olympiad (IBO) took place at the University of Warwick between 23 – 30 July 2017 with 264 international competitors (aged 14 – 18) competing in a series of practical and theoretical exams devised by School of Life Sciences staff and colleagues from the Royal Society of Biology. These exams sought to provide an educational experience for the competing students and provide a robust theoretical and practical challenge to discriminate between abilities. Their secondary aim was to showcase complex biological concepts to further pique candidate's interest in biological science and encourage them to pursue careers in this area. The structure of practical and theoretical exams was underpinned by these pedagogical aims by applying a contextual narrative throughout the papers. Whilst a few logistical problems occurred, these did not impact the desired educational aim, leading to one of the most successful IBO's in recent years.*

Keywords: pedagogy; Olympiad; examination; Education; Biology; reflection

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## Introduction

The International Biology Olympiad (IBO) ran from 23 – 30 July 2017, and comprised a series of competitive practical and theory exams for 264 students from 65 countries. This was the first time the event had been held in the United Kingdom. The University of Warwick, led by the School of Life Sciences (SLS), submitted a proposal to the Royal Society of Biology (RSB) and was chosen to host this prestigious international event. The partnership was specifically between SLS, Warwick conferences and the RSB. In terms of content, SLS were solely responsible for the design and implementation of the practical examinations only. Key team members from SLS are shown in Supplementary Table 1. *'To take part in the IBO, the students must be in the top four in the National Biology Olympiad in their individual countries'* (Royal Society of Biology, 2017).

National competitions are extremely competitive and for the UK over 7500 students entered the 2016-17 British Biology Olympiad (**UK Biology Competitions, 2017**). The top sixteen students came to Warwick in April 2017 to undertake three days of theoretical and practical skills development, culminating in challenging theory and practical examinations. The top four were selected to represent the UK. Following further training at the Natural History Museum, Kew Gardens and the University of Reading they were ready to compete on the International stage at the IBO in July.

There are several aims of the IBO (**Royal Society of Biology, 2017**) with the most important being:

- To provide an educational experience, as well as promote an interest in biology.
- To stimulate talented young people in the field of biology and help them on their way to a career in biological research.
- Be an opportunity for collaboration and inspiration between students, researchers and universities across national borders.

### **Practical Examination Design**

Historically, the practical examination component of the IBO had been divided into four separate one and a half hour exams. The driving aim for Dr Leanne Williams and Professor Kevin Moffat was to devise practical exams that were a comprehensive test of understanding the scientific method. This was achieved through assessment criteria involving problem solving, practical skills and the ability to think laterally across multiple components. The intention was not to test the recall of assumed knowledge nor the application of 'typical' practical techniques. Exams were reduced to three separate two hour exams to allow for an increase in complexity, driven by a multistage contextual narrative.

The botany practical (developed by Dr Miriam Gifford) explored the origins of plants and their taxonomy. This tested the ability of students to show their understanding of the topic by completing an array of tasks, which increased in detail and complexity. These included plant taxonomy/morphology and seed/embryo development. Assessed skills were sample handling and dissection, interpretation, reasoning and time management.

*I wanted to use this as a chance to test their full range of practical botany skills, importantly on all aspects of plant growth and development. From the tiniest developing seed to seven hundred million years of botanical*



*evolution, I wanted to encourage students and those involved to have a greater appreciation of plant science through the fascinating structures observed (Gifford, 2017).*

The biochemistry practical (developed by Dr Stuart Allen and Dr Michael Baker) explored a clinical scenario of a hypothetical family with a genetic metabolic disorder. This required candidates to understand a hypothetical clinical scenario and relate this to enzyme biochemistry data that they had devised experimentally to underpin protein and genetic analysis. Assessed skills were technical accuracy, data handling, interpretation, reasoning and time management.

*We developed a clinical scenario based on blood tests that are characteristic of disease, a biochemical assay to determine the extent of the disease state and a genetic component that linked the disease symptoms and biochemical activity to the genetics of a fictitious family. The difficulty was that each component of the practical had to be understood and completed to be able to determine the disease state of the fictitious patients. The practical tested mathematical skills in context of a clinical scenario, practical skills in the form of the biochemical assay, as well as an understanding of how the components linked together to determine the genetic backgrounds of the patients (Allen, 2017).*

Finally, the developmental physiology paper (developed by Dr Leanne Williams and Professor Kevin Moffat) investigated the external and internal morphology of *Calliphora vicina* – a bottle fly larva. Candidates worked through a series of tasks which allowed them to develop an understanding of the organism and quickly develop the skills needed for subsequent tasks as their technical difficulty increased. The requirements were to identify and isolate intact specific tissues of the organism, to identify the dorsal vessel (heart) and devise and perform an experiment to test the effects of various pharmacological agents. The skills assessed were fine dissection, microscopy, experimental design, reasoning and resilience.

*We wanted to create a completely skills based practical that required no previous theoretical knowledge. There were two parts to the practical that required observational skill to achieve relatively simple aims. The second part particularly, needed the students to theoretically design the experiments based on our stated criteria and give expected outcomes. Finally, students had to perform the experiments and display their data graphically. The outcomes we wanted were for the students to experience the incredible internal anatomy of a maggot, and to appreciate the scientific method (Moffat, 2017).*

During the week prior to the IBO a sub-jury comprising six members and led by the IBO chair, met to review the practical and theoretical materials. The scientific content, the rigour of the exams and any complications associated with translation were identified, scrutinised, critiqued and evaluated. Exams cannot be presented to the IBO jury without the consent of the sub-jury. This was a vital component in the final stages of the practical exam development and played an essential role in the presentation and justification of the exams to the international jury on the Monday of the IBO week.

As has been previously stated, one of the key aims of the IBO is to provide an educational experience (**Royal Society of Biology, 2017**) and this heavily influenced the design of the practical and theoretical exams. A common theme between the exams was to encourage the students to be able to 'learn' from their experience. It was not expected that students would come into their exam knowing all of the answers and the hope was that they would leave their exams inspired to continue learning. This pedagogical approach to examination was unique to the IBO 2017 and will hopefully be a recurring theme in the years' to come.

### **Practical Exam Reflection**

The jury report for the practical exams praised the content and the approaches taken by academic SLS staff to ensure that a narrative was shown throughout the paper. Compliments were given on the novel structure of the papers and the educational value. During the practical exams a team of inspectors attended all exams to consider the following:

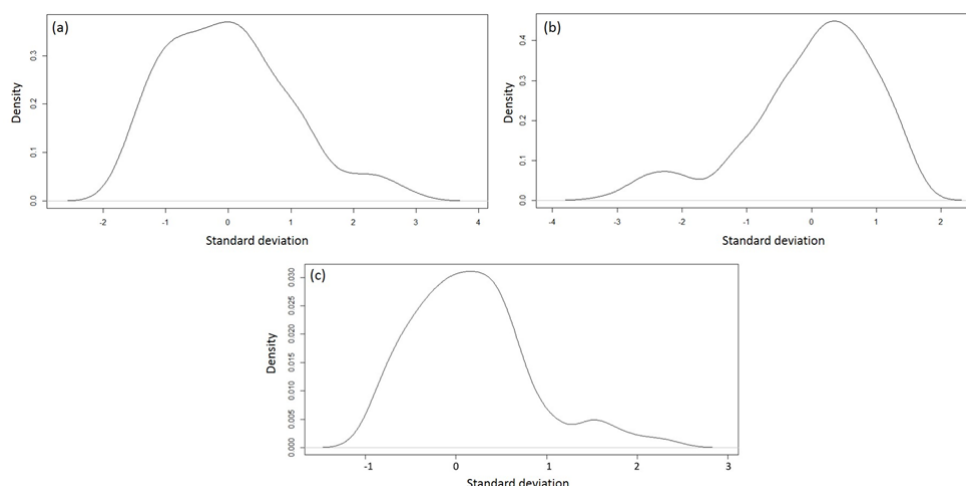
- a) How scientifically valid the exams were and whether they adhere to the IBO syllabus.
- b) How the exams went on the day and how any incidents were dealt with.
- c) Whether marks should be awarded/deducted from individual students due to conduct/circumstances in the exam rooms.

The inspectors' post-exam report praised how smoothly the session went in terms of transport, delivery and assessment. It was determined that the practical exams were of an excellent standard and some of the best in Olympiad history. In the botany exam several students did not fill in their paper identifiers and attempted to remove exam material from the room, leading to the misidentification of a student's completed exam. It was also noted that that some translations were not sufficient for students to follow and, in a number of cases, jury members included the official English version of the exam alongside their translation. Pleasingly

no students seemed to struggle answering the exam, although mistranslation of questions cannot be ruled out.

## Results

Each of the three practical exams had its own pedagogical aims. The results of the exams were explored to determine if answers matched the examiners' expectations. Figure 1(a) highlights the difficulty of the biochemistry exam with the average standard deviation (sd, 0.0) being skewed to the left and a high density of greater than 0.3. A large proportion of students performed slightly better (1.0 sd, 0.2 density) and slightly worse (-1.0 sd, 0.3 density) than average. Most students were only able to score low marks (as some students achieved over 3.0 sd higher than their cohort). Pedagogically it shows that those students who were able to fully understand each component of the practical were able to achieve the top marks.



**Figure 1:** Standard deviation scores of the competitors (N=241) throughout the practical exams for biochemistry (a), botany (b) and developmental physiology (c). The y axes show the density of students whereas the x axes show the standard deviation distribution, with zero showing the average standard deviation compared to the mean mark and the digits representing standard deviations above and below the mean mark. This figure was produced by Matt Johnston and Joshua Hodgson using the publicly available list of results available online at: [http://ibo2017.org/images/ResultsIBO2017Full\\_inc\\_Iran.pdf](http://ibo2017.org/images/ResultsIBO2017Full_inc_Iran.pdf).

Figure 1(b) shows a comparatively easier botany paper due to the right handed skew of the distribution. Nearly half of the students (over 0.4 density) scored highly with many more doing better than average (1.0 sd, just under 0.4 density). Those students that performed poorly drop down sharply below the average, suggesting that most students performed well in this exam. However, a small minority of competitors performed very badly (nearly -4.0 sd below average), highlighting the previously discussed translation issues. It could be suggested that those students who did not have English as their native language struggled in certain sections of the botany exam, leading to the perceived lower scores. Pedagogically, these results show that many students succeeded in the full range of botany practical skills, and for those that did not perform as well, hopefully this served as a learning exercise to invest time in further exploring their botanical knowledge.

Figure 1(c) shows that many students struggled to perform very well in developmental physiology (left handed skew). This practical had the fewest students performing averagely well (just over 0.3 density compared to biochemistry and botany – nearly 0.4 and over 0.4 respectively). This practical saw a greater spread of marks, highlighted by the condensed data with huge drop offs of student density 1.0 sd above and below the average. Pedagogically this practical saw the top students discriminated in terms of practical skill, highlighting their superior abilities compared to the rest of their cohort.

Overall, the response to the IBO 2017 practical exams was very positive. Where issues were identified, all were resolved in a manner that did not interfere with the students' final results, leading to the conclusion that the key aim of achieving a pedagogical approach was successful. This educational experience was essential to the students' learning and the three aims of the IBO (**Royal Society of Biology, 2017**) can be considered to have been met in the practical exams. The pedagogical approach to examination by extending the exam length and weaving a narrative throughout the papers serves to accomplish the first aim in its entirety. Secondly these exams provided an insight into current areas of contemporary research, hopefully provoking the students to further explore these areas in their future. Finally the third aim was accomplished through not just partaking in the exams but by attendance at the IBO itself.

*These students came to the University of Warwick to compete in a competition, but left having experienced so much more. The IBO will have been a positive experience and showed the advantages that a university education brings, such as the opportunity to meet other like-minded*

*people and to research solutions into problems that affect the world around us. The fact that the University of Warwick is an internationally acclaimed university will have also shown the students the potential of collaboration on a global scale, especially in the Life Sciences. We have high hopes that this IBO will have inspired students in the UK to compete in future national biology competitions and to consider future study into the Life Sciences (Crealock-Ashurst, 2017).*

## **Theoretical Exam Reflection**

Two theory exams were delivered to the competitors via the technology platform *Joda*, a platform that has been used in previous years (Helfer, 2016). This software was used for the presentation and translation of the theoretical exams and for the translation of the practical exams. The exams were written by two former UK IBO competitors – Matt Johnston and Joshua Hodgson. The aim for these theory exams was to challenge the competitors' understanding of fundamental biological science / scientific theory and to deliver a pedagogical approach akin to the practical exams. Matt Johnston outlined their approach to the theory exams:

*We wanted to make theory exams easier than previous years. We wanted students to score 75% (half way between 50% (chance) and 100%). We wanted to make the science a little less sanitised than previous IBOs, so that students would learn something as they did it. They may see something which is cool and want to read more (e.g. Turing patterns). And ... we wanted to showcase British science (Johnston, 2017).*

The content for the IBO theory exams is strictly controlled by the IBO syllabus as shown in Figure 2 and all questions are required to focus on reasoning, problem solving and understanding (Moréllis, 2016). The creators of the exams therefore sought to include lots of examples of 'British science discovery' to develop their pedagogical approach to examination and the IBO requirement for an educational experience.

(3) Theoretical questions should cover the following topics in the indicated proportions.

<b>I</b>	<b>Cell biology</b>	<b>(20 %)</b>
	Structure and function of cells and their components	
	Microbiology	
	Biotechnology	
<b>II</b>	<b>Plant anatomy and physiology</b>	<b>(15 %)</b>
	(with emphasis on seed plants)	
<b>III</b>	<b>Animal anatomy and physiology</b>	<b>(25 %)</b>
	(with emphasis on vertebrates and especially man)	
<b>IV</b>	<b>Ethology</b>	<b>(5 %)</b>
<b>V</b>	<b>Genetics and Evolution</b>	<b>(20 %)</b>
<b>VI</b>	<b>Ecology</b>	<b>(10 %)</b>
<b>VII</b>	<b>Biosystematics</b>	<b>(5 %)</b>

**Figure 2:** The theoretical questions and desired percentage proportions.

Again, the sub-jury performed a pre-exam inspection of the questions before inspection and translation by the jury. For the practical examinations, a post exam report on the conditions in the exam was provided by the inspectors. Both were very satisfactory with the examiners praising the layout of questions and the approaches used to encourage students to further research the topics post IBO. This can be considered to have accomplished the IBO aim of providing an educational experience and provided stimulation to the students in the field, encouraging them to further their careers in biological research. No major IT service problems were encountered and all students were able to connect and finish their exams properly via the exam provider Joda. 'This was singly the best IT delivery across the exam and the jury room that the IBO had ever seen' (Moffat, 2017).

## Conclusions

As outlined in the introduction, the IBO 2017 sought to continue the IBO tradition of providing three main aims (Royal Society of Biology, 2017) and it can be concluded that all three of these aims were met. In both the theoretical and practical exams a considered approach was used to provide not only an educational experience for the students, but also to encourage future careers in biological research, thus meeting the first two aims above. Whilst the third aim was not accomplished by the action of taking part in exams, the students spending a week of networking and interacting also accomplishes the aim to collaborate and inspire in the future. These students will go back to their home countries and most commonly onto university education in related fields, where they will hopefully stay in contact with their fellow IBO competitors thus

accomplishing the goal of communication between universities across national borders.

Whilst the IBO will not be held in the UK again for a long time, it has hopefully inspired younger students in this country to further their interest in biology and encourage them to partake in future events, for a chance to be a part of what is considered to be the greatest biology competition in the world. Best of luck to Iran for the 29th International Biology Olympiad 2018 to be held in Tehran!

## **Acknowledgements**

Many thanks to Jenny Bowskill for her help throughout IBO week helping with the management of the logistics. Thanks must also go to Leanne Williams and Kevin Moffat for their hard work in ensuring the IBO went down so smoothly and for their help in writing this reflection. The IBO would not have happened if not for the extremely hard work of the SLS technical lab team consisting of: Gill Scott, Dave Vaughn, Tracy McCusker, Geraldine Keene and Razia Iqbal – they were and are all stars. I'd also like to thank the entirety of SLS for supporting and helping us during IBO and for volunteering their help and expertise. Finally, many thanks Charlotte Beesley for keeping me sane during the many months leading up to and during the IBO. Couldn't have done it without you!

## **List of Figures**

**Figure 1:** Standard deviation scores of the competitors (N=241) throughout the practical exams for biochemistry (a), botany (b) and developmental physiology (c).

**Figure 2:** The theoretical questions and desired percentage proportions.

## **Appendix**

**Supplementary Table 1:** Key team members from SLS involved in IBO preparation and delivery. This number was supplemented with 45 student other volunteers.



Academic Staff (Led by Author 2 and 3)	Logistical Staff (Led by Author 1)	Technical Lab Staff (Led by Gillian Scott)
Dr Stuart Allen	Dr Rebecca Allen	Dorota Boehm
Dr Michael Baker	Jenny Bowskill	Razia Iqbal
Dr Lorenzo Frigerio	<u>Branagh Crealock- Ashurst</u>	Andrew Jukes
Dr Miriam Gifford	Dr Rebecca Freeman	Geraldine Keene
Professor Kevin Moffat	Jeanette Horton	Tracy McCusker
Dr Robert Spooner		Gillian Scott
Dr Leanne Williams		Dave Vaughan

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