

Greening an Anthropology Field Course Programme – assessing the comparative importance of Net Zero agendas and Covid-19

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Abstract

Carbon emissions from academic air travel (AAT) are of concern to all in higher education, but the focus to date has primarily been on research (e.g. flying to professional conferences) rather than teaching and learning. This article describes the development and delivery of Durham University's undergraduate field course programme in anthropology before, during and after the Covid-19 pandemic. While the University provided helpful leverage towards greening the programme's travel arrangements, continuing restrictions on long-distance international air travel post-pandemic and reducing the length of field courses proved more effective drivers towards Net Zero than concerns about carbon emissions.

Keywords

Undergraduate field courses, green travel, net zero, carbon emissions, Covid-19

Introduction

Academic air travel (AAT) is increasingly recognised as a crucial area for scholarship and action (Braun and Rödder 2021), although the focus to date has been mainly on the research rather than teaching dimensions of AAT. With few exceptions (e.g. Hamilton 2022) air travel to overseas destinations for the purposes of field research, conference attendance and the like has been very much the 'bread and butter' of anthropological practice. Indeed, it could be argued that the growth of anthropology as an academic discipline has been inextricably entwined with the expansion of intercontinental air travel since the 1960s. Yet while anthropologists have been vocal about the effects of global warming on the people with whom they live, work and conduct research in overseas locations, most have remained awkwardly silent on the implications of net zero policies for their own research practices. Baer (2019), for example, exhorts academic anthropologists to reduce their carbon footprint by flying less and finding alternatives to flying, but mainly focusses on the habit of making long-distance flights to give short conference papers rather than the implications of the climate emergency for anthropological teaching and research more generally.

Fieldwork is at the heart of anthropological research and Durham University has always had a reputation for giving Anthropology students hands-on experience of ethnographic and other forms of anthropological research methods from their 1st year onwards. The Anthropology Department has run an undergraduate Field Course programme for all its students since 2018, with a hiatus of two years due to the Covid-19 pandemic. As well as describing the make-up of the programme itself, this report identifies drivers, facilitators and barriers to reducing the carbon footprint of the programme, based on the principle that concerns about AAT could and should apply to more than just attending international conferences but to all aspects of anthropological research and teaching.

History and Development of the Field Course Programme at Durham University

The Field Course as a compulsory programme at Durham University follows on from a series of primatology field courses to the Drakensburg Mountains, South Africa organised by Prof. Russell Hill for several years, and some one-off 'study tours' to other destinations organised on a more ad hoc basis (e.g. Russell 2004). The success of these early programmes and our commitment to experiential teaching and learning more generally led

to a decision to develop a field course programme for all undergraduate students. It was to be a core, compulsory module for all single honours students in Anthropology, and an optional module for joint honours students.

The initial programme, launched in 2018, was for 1st year students going into their 2nd year and was organised very much as an experiential learning exercise offering training in qualitative and quantitative research techniques. As well as South Africa, ten-day courses were offered in Sri Lanka, Greece and the Scottish Hebrides, and in the same destinations (with Singapore substituting for Sri Lanka) the following year. An important precept in making the programme compulsory was that every student should be able to take part in a field course with no additional financial outlay on their part. This was made possible by drawing up module proformas which had the same learning outcomes for each field site (even if the destinations were different). However in 2018 and 2019 it was necessary to charge students travelling to the long haul destinations (South Africa, Sri Lanka, Singapore) a £700 'top up' fee to cover their extra flight costs to these places, something students choosing one of the European destinations did not have to provide. Durham University subsidises all degree programmes offering residential field course with an allocation of up to £700 per student out of central University funds, and we budgeted so that the travel, accommodation and subsistence costs involved in taking students to Greece and Scotland were covered by this figure, with £2000 per site set aside from the departmental teaching budget to cover additional staff costs (specifically postgraduate research student support).

In March 2020 the programme planned for September that year had to be cancelled due to the Covid-19 pandemic. The decision was also made to run the field course programme at the end of the students' 2nd year rather than their 1st year. This was clearly convenient from the point of view of permitting the students who missed out in 2020 to be able to take part in a course in 2021, but also reflected feedback from field course leaders about their experiences running the 2018 and 2019 field courses that students would benefit more from doing a field course later in their anthropological careers.

Greening the Field Course Curriculum

Cancelling the 2020 field course programme meant a successful bid by the department to Durham University's 'Ring-Fenced Carbon Budget' (RFCB) also had to be abandoned. The RFCB is a fund set up by the University in 2011 to give grants to individuals and departments in support of initiatives to reduce their carbon footprint. Grants are often equipment-related, so it was probably something of a novelty for the committee to have a proposal (worth £10,638) to reduce the carbon footprint of a teaching programme like the Anthropology field courses. Our bid proposed to (a) enable students to travel to existing field courses using greener transport options and (b) develop field courses in sites closer to Durham where the carbon footprint would be less. The first aim was impossible for field courses to the two long haul destinations in our programme (South Africa and Singapore) but was possible for Greece and the Scottish Hebrides.

The Greek course was based in Volos, and involved students flying to and from London, either direct to Volos or via Thessaloniki (Macedonia) followed by a bus transfer. The proposal made in the RFCB bid was for students who opted to do so to travel from London to Volos by train via Paris – Munich – Zagreb – Belgrade and Thessaloniki, taking advantage of the Belgrade – Thessaloniki Hellas overnight sleeper which ran in the summer months. The Scottish Hebrides course, based on the Isle of Coll, involved chartering a coach to take students from Durham to Oban, the port from where a boat could take students to the island. This involved a double journey for the coach – up and back to Oban, and up and back again the following week, which was poor carbon economy compared to students travelling both ways by train. As far as developing new field courses in sites closer to Durham was concerned, we proposed using green travel methods for two staff members to go on a reconnaissance visit to Fuerteventura, and for two others to travel to Malta to investigate possibilities there.

The RFCB uses the UK government's Greenhouse Gas Conversion factors (Department for Business, Enterprise and Industrial Strategy, 2022a) and their associated methodologies (Department for Business, Enterprise and Industrial Strategy, 2022b) to evaluate the carbon emissions per passenger kilometre involved in different modes of travel (see Table 1).

	Fuel Type	Measurement Unit	Quantity (insert)	Multiply	Emissions Factor kgCO ₂ / per measurement unit
Travel	Average Car Petrol (owned assets)	km	0	x	0.17048
	Average Car Diesel (owned assets)	km	0	x	0.17082
	Average Car Plug-in Hybrid Electric (owned assets)	km	0	x	0.02298
	Average Car Battery Electric Vehicle (owned assets)	km	0	x	0.04709
	Average Motorbike Petrol (owned assets)	km	0	x	0.11355
	Average Van Diesel (non owned assets)	km	0	x	0.23156
	Average Van Petrol (non owned assets)	km	0	x	0.21332
	Regular taxi	Passenger km	0	x	0.14876
	Petrol (average biofuel blend) owned assets	litres	0	x	2.16185
	Diesel (average biofuel blend) owned assets	litres	0	x	2.55784
	Diesel (100% mineral diesel) owned assets	litres	0	x	2.69880
	Average Local Bus	Passenger km	0	x	0.09650
	Average Coach	Passenger km	0	x	0.02733
	National Rail Travel	Passenger km	0	x	0.03549
	International Rail Travel	Passenger km	0	x	0.00446
	Air Travel Flights Short Haul within Europe (economy class) with RF	Passenger km	0	x	0.15102
	Air Travel Flights Long Haul outside Europe (economy class) with RF	Passenger km	0	x	0.14787
	Air Travel Flights Domestic UK with RF	Passenger km	0	x	0.24587

Table 1 – Department for Business, Enterprise and Industrial Strategy conversion factors for different types of travel. Ferry travel is not included in this table, but is elsewhere calculated at 0.01874 kgCO₂ per passenger km for foot passengers, 0.12952 for car passengers, and 0.11286 which is an average figure for ‘all passengers’ travelling by ferry

Using these GCG factors, we calculated that 15 students flying from Gatwick to Volos, Greece (‘Short Haul within Europe’, 2200 kms each way) would contribute 9.97 tonnes of CO₂ to the environment. The same number taking the ‘International Rail Travel’ option (2374kms each way) would emit 0.318 tonnes of CO₂, a saving of 9.65 tonnes. The savings travelling from Durham to the Isle of Coll were less, not only because of the shorter distance but also because conversion factors for national rail travel are higher than those for international rail travel (0.03549 per person km vs. 0.00446 per person km respectively) – greater in fact than the emissions average for a coach (0.02684 per person km). Using these figures, however, the respective carbon emissions for the overland section of the journey from Durham to the Isle of Coll were 0.445 tonnes CO₂ by rail compared to 0.674 for coaches (a saving of 0.229 tonnes CO₂).

Greening the Field Course Curriculum – Covid and Carbon Emissions as Competing Drivers

It would be nice to say that the department’s deep dive into the carbon emissions figures for the different field site destinations and modes of transport forced a rethink of our entire field course programme, but in fact it was the ongoing challenges to global travel caused by the Covid-19 pandemic that led to the decision to limit residential field course sites to European destinations (Coll, Volos, Malta and Gibraltar) from 2021 onwards. Malta was a substitute for Singapore, and Gibraltar a substitute for the primatological field course in South Africa. But travel in 2021 remained impossible and we were only able to reinstate our programme in 2022. This necessitated us organising two sets of field courses that year. The first, for 3rd year undergraduates who had missed out completely on the possibility over the previous two years due to Covid, exceptionally took place in March. Ongoing Covid fears led to us reducing the length of this set of field courses from 10 to 7 days. More importantly, although travel to European destinations was cautiously opening up, ongoing Covid-19 fears and restrictions in many long haul destinations continued. The uncertainties involved made planning for long distance destinations foolhardy, as well as an expensive and risky proposition for students able and willing to pay the ‘top up’ flight costs. Seven days rather than ten also made long haul field courses less feasible for practical reasons (particularly where overnight travel and/or major time zone changes were involved).

The March 2022 programme was also marked by an innovative Virtual Field Course (VFC), to Plimoth-Patuxet historical site in the USA, set up by Prof. Gillian Bentley. Instead of having to travel, students and Durham staff on the VFC could stay put, using the Zoom platform for live ‘visits’ to meet inhabitants and volunteers at the site, ask questions and be shown around. Due to the different time zones, this engagement took place in the afternoons (UK time), while UK-based field course leaders led morning sessions with the students, discussing the previous day’s activities, preparing for the afternoon sessions, and giving them advice on appropriate readings for self-study. The VFC was particularly helpful to students who would have found attending a field course away from home difficult (e.g. due to caring responsibilities at home, neurodiversity or visa issues).

As in previous years, students were asked to indicate their field course preferences on an online form. We aimed to allocate everyone according to their first or second destination choices. The VFC might have sapped numbers opting for the Isle of Coll as a destination, or it might have been that, post-Covid, the majority were keen to take advantage of any opportunity for overseas travel that they could, but only five students in the March 2022 cohort included the Isle of Coll in their choices, making organising a field course in Scotland unviable on that occasion.

This was not the case in September 2022, however, when sufficient students put Coll as either their first or second choice and we ended up taking 15 students there. This second set of field courses brought the scheme back on track, but it remained an end of 2nd year rather than an end of 1st year activity. Field course leaders' experiences of conducting shorter courses in March 2022 had generally been extremely positive and so we decided to continue with courses of seven days rather than ten. While travel costs remained the same, there were savings to be made in the cost of staff time, accommodation and food from this arrangement.

Sticking with the field course as a 2nd year rather than a 1st year module moved the focus away from methods training to more reflective approaches to the question of fieldwork. The change was mirrored by a change in assessment for the field course module, from two x 2000-word reports, one based on quantitative research and one qualitative research, to one x 4000-word report "designed to assess the extent of students' understanding and execution of fieldwork skills, and their ability to apply appropriate theory and methods to address a relevant anthropological question in a fieldwork setting".¹ We also set up more formative assignments (a pre-field course literature review, and post-field course report outline) to compensate for the shorter time students were going to spend 'in the field'.

We were also able to successfully revise and resubmit the RFCB proposal for our September 2022 programme. In this bid (for £10,788) we were able to point out we had already reduced the carbon footprint of our field course programme without recourse to RFCB funds through limiting our field course destinations to Europe and the VFC. We were also able to include all our residential field course destinations – Coll, Gibraltar, Malta, and Volos – as both greenable and cost free to students. The VFC of course involved no travel-related carbon emissions at all, as well as being a decent option for any students with lingering concerns over Covid-19 travel risks. In short, thanks to the RFCB, we were able to propose green travel options to all students on the September 2022 field course programme. We were also able to reinstate the plan for two staff members to visit Fuerteventura on a reconnaissance trip.

Greening the Field Course Curriculum – Implementation Issues

Lack of Student Uptake

Although we had alerted students to the possibility of a green travel option in both the sessions introducing the field course programme and the individual field site destinations in early 2022 and had encouraged them to use it, an unforeseen problem that emerged was that fewer students than we had predicted stepped forward to take up the offer. There were 91 students on the September 2022 programme, 11 of whom were allocated to the VFC. Of the remaining 80, the 15 students travelling to Coll had no choice in the matter since train travel to and from Oban rather than a chartered coach had been part of the initial 'offer' for this course. Eight of the students allocated to Volos took up the green travel option, six of them in one direction and two of them both ways. The Belgrade-Thessaloniki Hellas sleeper had not been reinstated post-Covid, so we changed the green travel arrangements for these students so that they travelled by train to Bari (Italy), from where they took a ferry to Patras (Greece) and trains from there on to Volos. Two of the students travelling to Malta took up the green travel option, both ways. This involved travel from London to Paris, Paris to Milan, from where they took an overnight train involving travel on the last remaining train-carrying ferry in Europe to Siracuse (Sicily), followed by a local train journey to Pozzallo and an onward ferry to Valletta (Malta). While one student on the Gibraltar field course expressed an interest in coming by train to join the field course, she was already in Spain (where she had been Interrailing) and we did not feel we could endorse green travel for just one student, on health and safety grounds.

The lower than predicted uptake was somewhat disappointing. We had estimated a saving of 9.65 tonnes of CO₂ but in the event we estimate the saving for Volos was 3.21 tonnes. In the case of Malta a predicted saving of 7.94 tonnes was reduced to 1.14 tonnes. The total figure for the carbon emissions we saved through the use of land and sea transport rather than aeroplanes in 2022 were 5.48 tonnes compared to the ambitious 26.51 tonnes we had predicted in our RFCB bid. In fact, cutting long distance field course sites out of our field course programme probably had a much more significant impact on our carbon savings than anything achieved through greening the means of travel to European destinations the way we did. According to our GCG factor

¹ <https://apps.dur.ac.uk/faculty.handbook/2022/UG/module/ANTH30B1>

calculations, for example, the carbon footprint of 20 students travelling to and from the UK to Singapore would have been 65.14 tonnes. Carbon emissions savings due to ground and sea-based transportation to European destinations seem relatively insignificant compared to a figure like this.

We had intended that the RFCB fund would pay the difference between the cost of travel by plane and the higher costs of the green travel options (train tickets, accommodation en route, subsistence) in all cases. We booked and paid for their train tickets and accommodation in advance. Given the lower than predicted uptake, we were able to use the RFCB fund to pay for pretty much all the green travel costs incurred by students and staff, except their subsistence costs en route which came out of the regular field course budget. We didn't offer to pay subsistence to students for the first day of travel, suggesting they might bring a picnic and/or packed lunch and other subsistence items with them. We found that students travelling to Malta and Greece generally spent around £75 each way on their subsistence during the journey. In retrospect we could have limited this amount by stipulating an amount like £50 and only reimbursing students up to this figure.

Those students who did 'go green' were asked to complete feedback forms about their experience on their return. The following quotes are typical:

"Overall, it was great. It was an enjoyable experience, tiring but definitely worth it."

"The ferry was probably what I was the most worried about because I couldn't imagine spending 19 hours at the same place and I had never been on a boat before so I wasn't sure how I would feel. But it turned out not as bad as I thought. But a more carbon efficient alternative [to the ferry] is for sure much better!"

"I hope next year students enjoy it as much as I did. I would totally recommend it for students who want to be challenged, who want to really see the distance between one place to another and how much effort it takes to go from one place to another. It was also a way to get closer to my peers, I feel like after those 3 days we reached a level of comfort with each other that I didn't think possible in just 3 days."

A few students expressed regret subsequently that they had not taken up the green travel offer, citing social and job-related commitments in the UK as the reason for having to fly.

Health, Safety and Procurement Expertise

Some staff members expressed misgivings about green travel options over air travel from a health and safety point of view. One member asked whether it was safe to allow students to travel by train and boat without having vetted the routes. Concerns were also expressed about how the planned journeys worked and would be experienced by women, people of colour, trans or gay students. The complexities of organizing green travel options were also raised. In the event, the latter did become something of an issue. Like many UK Universities Durham University has a procurement office that restricts the choices for travel bookings to a few University-approved suppliers. This works well except that larger companies tend to favour air travel over other modes of transport and hence have more experience and expertise in booking flights compared to greener alternatives. For example, according to the authoritative Mark Smith, "European trains only open for booking 2, 3, 4 or 6 months ahead, depending on the route and operator" (Smith, 2022). He then goes into detail about how different routes and operators vary in this regard. So when a University-approved travel agent wrote "I should advise you that all of the European rail network runs on a 90-day booking horizon, i.e. you can only book maximum 3 months into the future", it was clear this person was speaking from a position of complete ignorance. This did not inspire confidence in the ability of these sinecured travel agents to 'produce the goods', i.e. to be able to identify and book the bespoke journeys needed to get students from the UK to some quite challenging destinations involving multiple forms of transport and careful scrutiny of timetables, particularly given our tight travel budget (notwithstanding our RFCB grant). The consequence was that a lot of the bookings had to be done by the author (as module convenor) directly rather than through a travel agent. This involved a very steep learning curve and a considerable outlay of time and energy in the months leading up to the field courses. In fact, the fact Gibraltar had not ended up as a 'green travel' destination was something of a blessing in disguise. The VFC, of course, not only offered the lowest carbon footprint of any of the field course destinations but also required no travel arrangements to be made.

Travel Insurance

There were also internal issues regarding University travel insurance which had to be ironed out. Students travelling to Volos were issued with tickets that took them from London to Bari in 24 hours (via Milan, with a sleeper reservation from Milan to Bari). They then had 10 hours to wait in Bari for the overnight ferry to Patras. Some of the students expressed a wish to have more time to explore the destinations through which they were passing en route (e.g. through the use of a 7 day Interrail pass) but from a travel insurance perspective, the fact the students were not travelling directly to the destination country but were transiting en route in an intermediate country made the question of Travel Cover problematic. As the University insurance advisor put it, if the students were in transit through an intermediate country, “solely to change planes (or trains) and remaining in the airport or railway station throughout” this would be unlikely to raise issues from a Travel Cover perspective. However, an overnight stay or sightseeing en route would mean they were no longer simply in transit to their final destination but had engaged in separate travel to an intermediate country. “The permitted flexibility in the current arrangements is...problematic and should be addressed”, the adviser told us in no uncertain terms. This remains an issue that inherently favours air travel over slower but more sustainable forms of travel and needs to be resolved at an executive level. The most likely solution at the moment is likely to be that we ask students to take out a personal travel insurance policy when their journey to their field course site is ‘broken’, however necessary such a break might be.

Conclusion

This article has described the history and development of a field course programme as part of the ‘core’ undergraduate offer at Durham University under the twin pressures of Covid-19 and Net Zero. The Department for Business, Enterprise and Industrial Strategy’s Behavioural Insights team (Department for Business, Enterprise and Industrial Strategy, 2021) offer nine principles for successful behavioural policymaking to achieve net zero. These include providing exemplary leadership, offering incentives for low-carbon options, establishing low-carbon norms, and making such choices easier by making sustainable options affordable and sometimes the cheapest option. The Anthropology undergraduate field course programme at Durham University has attempted to do all these things, although the greatest driver towards a greener programme was (at least initially) the risks of long haul travel disruption due to Covid rather than the incentives to go greener provided by our RFCB award, generous though this was. Lack of student uptake (despite making both air and ground-based travel cost-free to students), dealing with subsistence costs en route, staff concerns about health and safety, procurement arrangements (and lack of specialist travel suppliers able to negotiate the complexities of European train travel), academic time necessary to arrange travel in lieu of a competent travel agent, and questions about travel insurance were all significant issues. In contrast, disbanding the long haul destinations on our field course programme altogether has had a much greater impact on our carbon footprint than offering students land and sea-based alternatives to short haul flights within Europe seems to have done, however worthy such moves may have been. The development of virtual field courses to long distance locations, and making green travel compulsory rather than optional where it needs to occur are much more effective ways of making a difference.

This report hopefully offers an exemplar for further development, not only at Durham University but at all institutions committed to both leadership and an effective ‘choice environment’ in this field (Department for Business, Enterprise and Industrial Strategy, 2021). Despite the issues outlined above, efforts to reduce the carbon footprint of our undergraduate field courses has borne significant fruit. It is an initiative that offers a blueprint for the reduction of unnecessary AAT not only in teaching anthropology but to all parts of the University curriculum involving fieldwork. Such an agenda desperately needs extending beyond curricular concerns into a wider debate about research and administration in higher education if the changes necessary to achieve Net Zero in the sector are to be achieved.

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