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Grappling with Flying as a Driver to Climate Change: Strategies for Critical Scholars Seeking to Contribute to a Socio-Ecological Revolution

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Airplane flights are one of the fastest, perhaps even the fastest growing source of greenhouse gas emissions, even though there is much discussion of mitigating emissions to stave off a global climate change disaster. While business people, politicians, celebrities, and highly affluent people appear to be the most frequent flyers, the demands of an increasingly corporatised university sector have placed much pressure on academics, including anthropologists, to fly to attend conferences and meetings and conduct research. I seek to grapple with the dilemmas involved in the academic use of aircraft, particularly on the part of those academics who accept the gravity of anthropogenic climate change spurred on by the demands of global capitalism, and propose some strategies for mitigating climate change on the part of particularly anthropologists as part of the larger project of creating a socio-ecological revolution that will contribute to a safe climate.

Key words: academics; anthropologists, air travel; climate change; socio-ecological revolution

INTRODUCTION

Although not quite as ubiquitous as automobiles, airplanes of many sorts (commercial, military, and private), have become an integral component of modern cultural and social life. As Adey (2010:208) so astutely observes, the airplane “has promised a lot, an awful lot, and... has a lot to

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answer for.” In a similar vein, Urry (2009:33) argues that international air traffic has created a wide array of mobilities, including “[h]oliday-making, money laundering, business travel, drug trade, infections, international crime, food transport, asylum seeking, leisure travel, arms trading, people smuggling, and slave trading.” These mobilities have become an accepted, and apparently necessary part of many people’s work and status requirements. The aviation industry, in terms of aircraft production and maintenance, airline companies, and military aircraft utilisation, has become a pivotal part of the capitalist world system.

While a growing number of critical scholars (Foster 2009; Baer 2012) acknowledge global capitalism as the principal cause of anthropogenic climate change, one of the smaller elephants in the room is the growing number of airplane flights worldwide. Given that airplane flight does significant and growing damage to the upper atmosphere and to the climate, I argue that this is an issue that should be considered when academics choose to fly. This damage is a phenomenon in which many academics, not to speak of other people concerned about climate change, including climate scientists, delegates to the numerous United Nations climate change conferences, and even climate activists and other environmentalists, are participants, even if the greatest users of airplane flights are businesspeople, politicians, celebrities, and holiday makers. This involvement should not be hidden or bypassed.

This article seeks to grapple with the dilemmas involved in the use of aircraft, by academics, university administrators, professional staff, and students. Being an anthropologist, I would like to raise some of the dilemmas involved in the flying behaviour of anthropologists, particularly in attending conferences and conducting ethnographic research in sites far away from home. I also propose some strategies for mitigating climate change on the part of academics, including anthropologists. Fortunately, a growing number of academics have already come to recognise the contradictions in their own flying behaviour and have proposed strategies for reducing their flying and for relying on other forms of travel, conferencing, and conducting research. Thus, I aim to promote a critical analysis of our own mobility practices and the effects of those practices as academics and critical scholars and urge us to be part of a larger collective effort to create an alternative world system based on social justice, environmental sustainability and a safe climate.

INCREASE IN AIRPLANE FLIGHTS AND RELATED GREENHOUSE GAS EMISSIONS

A Massachusetts Institute of Technology report about the global airline industry found that 2,000 airlines were operating around the world, serving 3,700 airports, offering 28 million scheduled flights per year, and transporting two billion passengers, one third of whom were attributed to the United States (Simms 2013:90). Flying is reportedly the fastest-growing single source of greenhouse gas emissions and is expected to be so in the future (Bridger 2013:2). Aviation reportedly contributes between two to three percent of total annual anthropogenic carbon dioxide emissions according to various sources (Owen *et al* 2010). However, it also contributes to non-CO₂ greenhouse emissions, including ozone and methane from nitrous oxide (NO_x) emissions or contrails and contrail cirrus. As airplanes also emit nitrous oxide and other exhaust fumes, a factor between two and three is normally applied to the CO₂ impact. Simms (2005:95) calculates that, if “among all the world’s people we were to share equally a safe volume of greenhouse gas emissions, a single long-haul flight would take up one person’s entire ration for several years.” Flying from London to Hong Kong return results in 3.4 tons CO₂ equivalent in economy class, 4.6 tonnes CO₂ equivalent on average, and a whopping 13.5 tonnes CO₂ equivalent in first class (Berners-Lee 2010: 135). Developed countries are at the forefront in terms of aviation CO₂ emissions with, in 2004, the UK emitting 35.5 million tons, France emitting 24.1 million tons, the United States 261.8 million tons, Australia 15.1 million tons, Japan 36.3 million tons; and Germany 24.5 million tons (Johnson *et al.* 2008:10). The Center for Biological Diversity reports:

In 2014, the U.S. aviation alone emitted about 0.2 gigatonnes of greenhouse gases. Aircraft are the third-largest source of greenhouse gas emissions in the U.S. transportation sector, accounting for some 11 percent of the sector and some 4 percent of U.S. emissions overall (Center for Biological Diversity 2015:5).

Reportedly “in the region of 1,700 commercial airlines (operating over 20,000 aircraft) fly 30 million commercial flights between 3,750 airports every year” (Budd *et al* 2013:5). While flights in North America and Western Europe may be approaching saturation, the airline industry has found new markets in developing countries, such as Brazil, the United Arab Emirates, China, Indonesia, and the Philippines. International air travel rose 3.8 percent and 3.0 percent in Europe

and North America respectively between 2012 and 2013, but it grew 12.1 percent in the Middle East and 8.1 percent in Latin America over the same period (International Air Transport Association 2013:1). Domestic travel increased 4.9 percent worldwide in the period 2012-2013, with a growth rate in China during this period of 11.7 percent. Reportedly, “African airlines international air travel expanded 5.5% in 2013, a solid result but slower than growth in 2012 (7.5%)” (International Air Transport Association 2013:2). Furthermore, global aviation’s contribution to climate change is forecast to triple by 2050 under a ‘business as usual’ scenario (Center for Biological Diversity 2015:5).

WHO IS BEING AND WHAT IS BEING TRANSPORTED BY AIRPLANES

Most airplane flights, including relatively low-cost ones, are being taken by more affluent people around the world. “Hypermobility” is a “process driven by a relatively small part of society, increasingly comprising new societal groups with new mobility motives” (Goessling *et al.* 2009:146). Frequent flying has become a “normalized activity” for certain privileged social categories and an “integral part of celebrating a birthday, anniversary or retirement, taking a city break, relaxing and getting away from it all, visiting friends and family, or pursuing a special interest such as golfing or climbing” (Randles and Mander 2009b:345). As in many other areas of a stratified world system, the affluent participate in this hypermobility for a variety of cultural, status and income reasons, and contribute much more overall to greenhouse gas emissions from flights than do working-class people and particularly the poor around the globe.

Air travel, both domestic and international, is much more common on the part of people in developed countries than in developing countries, although it is growing among the affluent sectors in the latter. Watson asserts:

[F]lying is an elite activity: only 5 per cent of people alive today have ever flown and, of those, very few are frequent flyers. It may be that just 1 per cent of humanity is responsible for 80 per cent of the world’s flight (Watson 2014:16).

Anthropologists, at least some of whom are frequent flyers, may engage in an activity that the subjects of their ethnographic research have never done.

Business-related travel reportedly accounts for 33-40 percent of worldwide air travel, and is as high as high as 80-90 percent in some regions, such as China (Davies and Armsworth

2010:7634). Many business people fly daily or weekly between sites of residence and work (Goessling *et al* 2009:131). Research is also needed on the flying behaviour of politicians, diplomats, celebrities, and professional athletes etc. Middle-class people and relatively affluent working-class people, particularly as tourists or visiting significant others, have become frequent flyers. Even so-called *eco-tourism* is often heavily reliant on airplane travel. Air transport reportedly accounts for about 35 percent of the value of goods traded internationally (Leonard 2010:115). The US Air Force consumes most of the fuel consumed by all the branches of the armed force and consumed 2.6 billion gallons of jet fuel, nearly half of the Department of Defense fuel supply in 2006 (Sanders 2009: 61).

Perhaps the greatest irony of air travel is captured by Goodal (2007:184), who observes that he is “appalled by the international conferences on climate change that involve thousands of delegates travelling many miles by air.” Climate scientists, environmentalists, and climate activists tend to fly more than ordinary people for a variety of reasons (Lassen 2010; Higham and Cohen 2011; Marshall 2014:200-204). Despite a total of 24 United Nations Framework Conventions on Climate Change since 1995, global greenhouse gas emissions continue to rise, despite much discussion and many resolutions, all of them ultimately voluntary, to reduce greenhouse emissions through a wide array of agreements and mechanisms.

ENERGY EFFICIENCY, THE REBOUND EFFECT, AND ALTERNATIVE FORMS OF FLYING

The aircraft manufacturers, airlines, and airline organizations maintain that greenhouse gas emissions from flights will progressively decline, even to the point that eventually “zero emissions flight” will be achieved (Peeters *et al.* 2016). The aviation industry has made no commitment to reduce its greenhouse gas emissions until after 2020, promising reductions contingent on future technological improvements, such as lighter airframes and more energy efficient forms of propulsion, including solar flight, electric flight, and reliance on alternative fuels (Bridger 2013:21-22). Fuel efficiency does increase with the size of the airplane, meaning that flights in small aircraft, particularly private jets, are particularly energy-intensive and intensive in terms of greenhouse gas emissions (Bridger 2013:13). The International Air Transport Association (IATA) (n.d.), which represents 230 international airlines in 125 countries, proposed in 2007 an ambitious plan to “[b]uild zero-emissions commercial aircraft

within 50 years” and to achieve a “cap on aviation CO₂ emissions from 2020 (carbon-neutral growth); an average improvement in fuel efficiency of 1.5% per year from 2009 to 2020; [and] a reduction in CO₂ emissions of 50%, relative to 2005.” There is little evidence of progress towards these goals and the IATA plan seems highly utopian and self-serving, an attempt to postpone the reckoning into an uncertain future.

While there have been significant improvements in energy efficiency over the past few decades, this has been offset by a rise in the number of airplane flights during this period. This constitutes one more example of the ‘rebound effect’, or Jevons Paradox, in which energy efficiency is associated with increased economic growth, consumption, pollution and greenhouse gas emissions (Owen 2012:100). This is not to say that energy efficiency is not a desirable goal but to ensure environmental sustainability, it must be coupled with a steady state or net zero-growth global economy, for which humanity will need to transcend global capitalism, with its imperative of continual economic growth, with an alternative world system.

The growing concern about climate change has prompted discussion about the possible revival of airships that could be powered by a hydrogen-helium mixture or helium, thus circumventing the danger of disasters such as the explosion of the German airship *Hindenburg* (Sim 2010:92). Modern airships are fuelled by helium, which is much safer than hydrogen, but is heavier and more expensive presently than hydrogen and is in danger of being depleted (Bows 2009:48). If perfected, airships could constitute a form of slow travel given that they travel at speeds of 150 to 200 kilometers per hour. They also can “carry large loads with one-tenth the fuel of aircraft technology” and are already being used in eco-tourism (Newman 2010:183). While presently passenger transport by ship, particularly on luxury cruise liners, is not environmentally sustainable, transoceanic travel could make considerable use of wind power through the use solid sails as well as “renewable energy propulsion technologies” (McManners 2012:47). However, there are cultural reasons for suspecting that slow travel will not become part of the business and academic routine within the existing parameters of global capitalism. There is a sense that speed of travel is important, that people cannot afford to take much time off work, as it will pile up on them on return, or they will be out of contact for “vital” events, and that things will proceed without their input or knowledge. Being able to take time off work, unless a person is independently wealthy, or well connected, may imply that they are unimportant, and thus replaceable. Holiday times seem to be decreasing.

Air Travel on the Part of Academics and Research Scientists

Attending professional conferences has become an integral component of academic life. While I am primarily writing about anthropologists and sociologists, I do so because they are the disciplines I know best. Most academics from developed countries seem to be involved in air travel, and this practice is spreading among academics from developing countries. For example, in the case of the 2002 conference of the American Geophysical Union in San Francisco, the association calculated that the some 9,500 participants travelled an average of 7,971 return kilometers by airplane each, resulting in 11,000 metric tons of CO₂ emissions: roughly the same as produced by 2,250 Honda Civics in a normal year of driving (Lester 2007:36). Andrew Glover (2016) and his research team at the Royal Melbourne Institute of Technology, in a survey of over 300 Australian academics, found that the average Australian academic takes 1.7 overseas return trips and 3 domestic return trips for academic purposes.

While academics often argue that attending conferences provides excellent opportunities to disseminate their research findings, a 15-20 minute presentation or an hour-long keynote address is not the most efficient means for achieving this goal. Ultimately journal articles, book chapters, and books are much better and longer-lasting mechanisms for disseminating research findings. As Koch (2012:118) observes, new communication technologies have “made knowledge diffusion widely independent of an individual scientist’s travel activity.” He argues that attendance of conferences and other academic events in distant places in large part constitutes a strategy of “symbolic capital accumulation vis-à-vis one’s peers” (Koch 2012:118). Accumulating status and connections is one of the prime reasons for attending conferences. Many academics will tell you that it is important and beneficial to make casual contact with others to obtain projects, encouragements, invitations to travel to far locations, or pick up ideas through casual conversation. An academic who does not network in person may miss out, may become something of an outsider, able to get fewer publications, or participate in joint research proposals. Conference attendance often constitutes a perk, a liminal period during which one escapes briefly the routines of everyday academic and even domestic life, often in an exotic, faraway place.

Flying to a conference also may say something about an academic’s membership in a hypermobile elite, but the destructiveness to the environment highlights the conspicuous

consumption involved and the status accrued. Consequently, if we are to tackle academic travel, then we must aim to remove the structures of life and survival which make caring for the environment appear punitive to academic careers and academic status amongst peers. Ironically, some of these contradictions play themselves out within anthropological associations, the operation of which requires tremendous expenditure and contributes to greenhouse gas emissions, particularly in flying to conferences.

ALTERNATIVES TO FLYING

There is strong tendency to sweep the environmental problems of flight under the carpet, even among individuals who accept the reality of anthropogenic climate change. Conversely, a small but growing number of academics and research scientists are seeking to grapple in a variety of ways with the contribution made by flying to greenhouse gas emissions and climate change. High-speed rail is often touted as a more environmentally sustainable form of travel than domestic airplane flights but it is not necessarily a panacea. Train emissions dramatically increase for speeds above 200 kilometres/hour and the emission level from an “ultra-high speed of 350 km/hour is comparable to an Airbus A321” (Bridger 2013:15). Kevin Anderson, a world-renowned climate scientist at the Tyndall Centre, has given up flying and took a 20-day return train trip from the UK to a conference in Shanghai. He argues:

Travelling slowly forces us to travel much less, to be much more selective in what events we attend, and to endeavour to get more out of those trips we do take. Fewer trips and potentially long stays: not rocket science – just climate change basics (Anderson 2014:73).

Anderson notes that he managed to get a lot of work done on his long journey.

Dickinson and Lumsdon delineate the following dimensions of slow travel:

- A whole holiday experience with travel as an integral component
- Low-carbon tourism
- Walking, cycling, train and bus travel, but no air or automobile travel

- Taking one's time
- Environmental consciousness
- Longer visits
- Less distance travelled (Dickinson and Lumsdon 2010:103).

Numerous 'slow travel' websites now exist and provide travel tips for slow travellers (Dickinson and Lumsdon 2010:76-78).

Unfortunately, in a capitalist world time is money, either in terms of profits or wages. Conversely, in an alternative world attuned to social and climate justice with less pressure to be always earning or checking to see if your career is secure, slow travel could be the *modus operandi*. The culture of academia is problematic, particularly given that it is embedded within an increasingly corporatised structure, which places a strong demand on marketing the university as a brand competing with other brands. Giroux (2014:22) maintains that many universities and colleges "have become unapologetic accomplices to corporate values and power." In a similar vein, Escrigas (2016:10) maintains that universities have come under increasing pressure to contribute to economic growth to justify public funding that they receive, thus in the process "emphasizing competitiveness over collaboration and instrumental over holistic knowledge."

Rappaport and Creighton (2007:200) observe that university-related air travel at their home institution "accounts for a significant portion of Tuft's transportation-related emissions", and note that mitigation strategies to address this matter would include encouraging university staff to ask about videoconferencing lectures of guest speakers and travelling by train when possible. Indeed, in the past few years various campaigns have emerged urging academics and their associates, as well as researchers, including climate scientists who frequently attend overseas conferences, to reduce their flying through various strategies, including video conferencing and travelling to meetings and conferences by train or coach (Carter 2014).

Parkinson argues:

Many people – including many of the most vocal scientists, journalists, and environmentalists raising concerns about global warming -- would find cutting flying distance down to no more

than 35,100 kilometres per year a severe cutback. Those who are building careers and reputations on sounding alarm about the dangers of greenhouse gas emissions should be a great deal more conscientious than many of them seem to be about how much flying they do (Parkinson 2009: 310-311)

Extensive travel does not need to remain part of a career path. Some academics may assert that refusing to get on an airplane to deliver a short presentation at a far-off conference or to present a lecture at a far-off university will not make any difference in the larger scheme of things because the airplane is scheduled to take off anyway. However, if a critical mass of academics and other travellers opted to fly less for conferencing, business, or pleasure, airlines would inevitably have to reduce the number of flights they offer.

Although many researchers express concern about the number of conferences they feel compelled to attend because it interferes with the time needed to conduct their work, many continue to organise conferences or conference sessions. Fortunately, the Ecological Society of America has assessed the environmental impact of its annual conference (Lester 2007). In addition to having reduced the size of its program book, it has encouraged its members to miss conferences when possible, to combine trips to get the most out of flight miles, to avoid conference in distant countries, and to carpool or travel by train to local conferences (Lester 2007:36-37).

Parke Wilde (2015:1), an academic at Tufts University, posted the following petition for universities and professional associations to sign:

To Universities and Professional Associations

1. We petition **universities and institutions of higher education**: (a) to include all university-related flying (whether directly paid by the university or by others) in their environmental impact measurement and goal-setting; (b) to support and work to realize marked reductions in flying by faculty, staff, and students commensurate with the cuts suggested by climate science; (c) to establish and publish short- and medium-term benchmarks for reductions; and (d) to use their influence with professional associations to reduce reliance on flying for academic and research conferencing.
2. We petition **academic professional associations**: (a) to measure and report the environmental impact of their conferences; (b) to radically reduce the amount of flying

needed for conferencing; (c) to establish and publish short- and medium-term benchmarks for reductions; and (d) to work with university-based members to meet key professional objectives in ways that do not require flying and that are sustainable.

As of April 13, 2018, 1,274 academics from around the world have signed the petition.

While many universities do not report greenhouse gas emissions generated from university-related travel, some universities have begun to take into consideration the greenhouse gas emissions generated by university travel and have even taken modest steps towards mitigating it. For example, Santa Clara University in California generated “over 16 million pounds (7,320.5 metric tons) of carbon dioxide equivalent greenhouse gas emissions” in 2013 alone for university-related travel, which included academics attending conferences and student athletes traveling to games (Cooper 2015:1). Given that as a Jesuit institution Santa Clara University, which claims to be committed to social justice and sustainability, Kate Cooper (2015), a former SCU student and environmental ethics fellow, argues that to meet these lofty aspirations, SCU needs to replace “more air travel with teleconferencing and online communication and strongly encouraging public transportation when travel is necessary”, and educate the university community about the environmental consequences of air travel.

In the case of a much larger university, the University of Melbourne, with some 50,000 students, has recently officially partially acknowledged the contribution of university-related air travel to greenhouse gas emissions and has taken some modest steps to address the problem:

Air travel by staff on University business is estimated to be our second largest source of carbon emissions, in the order of 60,000 tonnes in 2015. A bold commitment to reducing air travel will underpin University-wide action to provide flexible alternatives to air travel, such as high quality teleconferencing facilities. Remaining emissions will be offset progressively by 2020. Implementation of the new travel management system ‘Easier Travel’ will provide comprehensive and complete air travel information from 2017 (University of Melbourne 2017:14).

While this statement constitutes a step in the right direction, it does not factor in two variables, namely student air travel, particularly on the part of overseas students who make up about one-

third of the student body, and problems associated with emissions offsetting schemes. Furthermore, the families of students at the University of Melbourne, as is the case for many other universities in Australia and other countries, often travel long distances to attend graduation ceremonies. Emissions offsets, whereby frequent flyers and big consumers can plant trees in developing countries, have often been compared to the purchase of indulgences by sinners during the medieval era to buy their way into heaven. According to Frank:

Natural forests, bogs, wetlands and grasslands, on which indigenous people must subsist, are foolishly being destroyed for this purpose after they have been conveniently declared degraded. The carbon traders have been cheating on calculations for the offsets, grossly overestimating the ability of the trees to absorb carbon (Frank 2009:35).

Ultimately most emissions offset schemes shift the onus of responsibility from developed societies to developing ones. There is something tragically ironic when particularly anthropologists from developed societies participate in such schemes, given that the subjects of their research are often peoples in developing countries.

In the case of the Australian Anthropological Society (AAS), there has been a tendency to invite anthropologists from North America and Europe to serve as the keynote speakers at its annual conferences. For example, at the 2015 AAS conference at the University of Melbourne, which had the theme of “Moral Anthropology”, all three keynote speakers were from North American universities. At the 2016 AAS conference, which had ironically the theme of “Anthropocene Transitions,” both keynote speakers were from US East Coast universities. From an environmental perspective, it would have made more sense either to have had the keynote speakers do video or skype presentations, or to have invited anthropologists from Australian or New Zealand universities to serve as keynote speakers, especially given the fact that there are several anthropologists in the case of the 2016 AAS conference who could have spoken knowledgeably about the Anthropocene.

Particularly, anthropologists situated in large cities such as New York, Chicago, the San Francisco Bay Area and the Greater Los Angeles Area in the US context, or Sydney and Melbourne in the Australian context, could hold day-long symposia in which they would have what constitutes a rare opportunity to learn about each other’s research and possibly form a

skype or teleconference connection with a prominent anthropologist in a faraway place. Local and regional conferences to which attendees could travel by train or coach rather than airplane should be privileged over international conferences, or even national conferences, in large countries such as the United States, Canada and Australia. Based upon my experience at the University of Melbourne, where I have been based since 2006, I find many of my colleagues in anthropology and related disciplines such as sociology, political science and geography, scurrying off to faraway countries without becoming more acquainted with path-breaking research in which their colleagues are engaged. Obviously, the demands of the corporatised university, of which the University of Melbourne has become part, along with thousands of universities around the globe, places pressure on academics to perform on a world stage to boost the rankings of the university. Although the University of Melbourne claims to be committed to environmental sustainability and has taken measures to achieve this, as have many other universities, there is a wide gap between the rhetoric of being green and engaging in green practices, particularly when it comes to issues such as university travel, whether it is on the part of high-level administrators, academic staff, professional or supporting staff or students.

Teleconferencing

Slowly but surely teleconferencing is beginning to emerge as a reality, given that the technology now exists to do so. In November 2010 the Signs of Change nation networked e-conference was held throughout New Zealand (Krumdieck 2014). With a population of some 4.5 million people spread out over the North and South Islands, New Zealand academics face monumental logistical problems in attending conferences in their country. The conference, which had as one of its aims to “reduce the traveling time for participants,” occurred at seven local venues situated in various locations on both islands, the two remotest being Kerikeri in the Far North District and Invercargill in Southland. In addition to reduction in travel time and cost, the Signs of Change e-conference resulted in significant reduction of greenhouse gas emissions that a conference in a large New Zealand city, such as Auckland, Wellington or Christchurch would have incurred. Susan Krumdieck states:

The Signs of Change conference demonstrated the concept, design, technology and positive benefits of a no-fly, minimum-travel conference. It showed that people can have the connections and exchange of ideas at a fraction of the financial, time and carbon costs (Krumdieck 2014:122).

The Environmental Humanities Initiative (EHI) at the University of California-Santa Barbara convened the “Climate Change: Views from the Humanities” e-conference in 2016. While the conference was an international academic event with over 50 speakers, it had a low carbon footprint. According to the convenors:

Had this been a traditional fly-in conference, our slate of speakers would have had to collectively travel over 300,000 miles, generating the equivalent of over 100,000 pounds of carbon dioxide (CO₂) in the process. This is equal to the total annual carbon footprint of 50 people living in India, 165 in Kenya. A conference that takes up the issue of climate change while simultaneously contributing to the problem to such a degree would be simply unconscionable (Environmental Humanities Center 2016).

In terms of anthropological conferences, a breakthrough in the promotion of environmentally sustainable conferencing occurred on 19-21 April at the Society for Cultural Anthropology’s biennial conference, in collaboration with the Society for Visual Anthropology, on *Displacements* billed as an “international experiment in carbon-conscious conferencing and radically distributed access” (Society of Cultural Anthropology 2018):

Air travel is one of the fastest growing sources of greenhouse gas emissions worldwide, and one of the chief ways that an academic livelihood contributes to carbon pollution. Our format is also meant to enable broader geographic access and participation, most especially in a political climate of intensified restrictions on international travel. We have set the conference registration fee at a flat \$10 with expanded access to anthropological knowledge and dialogue in mind. The conference brings together pre-recorded presentations from anthropologists, filmmakers, artists and activities in 46 countries, with participants tuning in from many other places as well (Society for Cultural Anthropology 2018).

The conference entailed 55 local *nodes*, including 15 in the Global South, which functioned as “decentralized, affinity-based forms of collaboration and exchange” (Society for Cultural Anthropology 2018).

The quality of interaction and networking that occurs at large anthropological conferences, such as those of the American Anthropological Association with some 5-6,000 attendees, often tends to be superficial as people scurry from event to event. Interactions are small conferences, such as those of Australian Anthropological Society or regional anthropological conferences in North America and Europe. They tend to be more intimate, but

unfortunately presentations at these do not earn the kudos that those at international conferences do within the parameters of the corporate or neoliberal university.

ACHIEVING A BALANCE BETWEEN RESEARCH ABROAD AND AT HOME

Perhaps more so than any of the social sciences and humanities, anthropological research is often conducted in places far from the home bases of anthropologists, who are generally situated in developed societies, particularly those in North America, Europe and Australasia. As Kathleen Gough (1968:12) observed some time ago, anthropology is the “child of Western imperialism” and, in the current context, neoliberalism or the capitalist world system. Fortunately, particularly since the 1970s, there has been a strong trend for a variety of reasons to conduct anthropological research at home (Kottak 1982; Messerschmidt 1981). Even when conducting research outside of one’s country, anthropologists could explore the possibilities of travelling by train or even bus rather than airplane. An eco-socialist world system would entail a more even playing field in terms of access to global resources. This would especially allow developing countries to have more resources to train “native anthropologists” who could work in sites where Western anthropologists for long worked and continue to work. Japanese anthropologist Takami Kuwayama states:

[N]ative anthropology represents efforts in many parts of the world to overcome Eurocentrism or Western academic hegemony. In the postcolonial world, the emergence of native anthropologists marks a blurring of the boundary between the colonizer/seer/describer/knower and the colonized/seen/described/known (Kuwayama 2004:1).

I am not proposing eliminating ethnographic research abroad entirely. There is often a tendency among Western anthropologists to study a people or a community in a faraway place during one’s graduate studies and then return to the original field site repeatedly over the course of one’s career, perhaps during summer academic breaks or even for shorter periods of time. Some anthropologists see it as beneath them to study a people or community relatively close to home. Conversely, beginning in the late 1970s, many Western anthropologists were forced to conduct research at home due to a reduction of funding. However, given a growing climate crisis, it is imperative that anthropologists, along with other academics, more closely reflect upon how they pursue their careers and research activities.

To be sure, over the course of my academic career, I have done my share of ethnographic research in faraway places. However, as I have become conscious of the massive contribution of flying to greenhouse gas emissions, I have made a conscious effort to drastically curtail my flying in both my personal and professional lives, and rely primarily on trains, trams, buses, cycling, and walking in making my way around (Baer and Singer 2018). Travelling to field sites and conferences by train, bus, and even car does result in greenhouse gas emissions, but their contribution is much lower than that of airplanes.

In his conception of a more socially just and environmental sustainable world, Ted Trainer (2010), an Australian eco-anarchist and staunch advocate of a “Simpler Way,” maintains:

Very few ships, large trucks or aircraft would be produced because there would be little need for the transport of goods or people over long distances. There would be little international travel, partly because the fuel for that would be extremely scarce, and secondly because there would be relatively little need for it. We might ration international travel primarily for educational and cultural exchange purposes, so that you might get one overseas trip in a lifetime. However, we could bring back wind ships, so you might study for your degree on a leisurely trip around the world (Trainer 2010:93-94).

Following on from Trainer’s observations, I envision two possible career trajectories for anthropologists concerned about the global climate crisis and its impacts on the people who they study. One is to possibly conduct their initial research project, generally their PhD dissertation or thesis work, in a faraway place and remain there for an extended period, even more than a year. However, future research projects should be conducted relatively close to their home. Conversely, an anthropologist whose initial major research project occurred relatively close to home might opt sometime later in his or her career to conduct research in a faraway place for an extended period, perhaps as a once-in-a lifetime experience.

There is a need to revisit “slow travel,” something in which anthropologists engaged up until the 1950s or so, when passenger air travel began to escalate. Anthropologists such as Franz Boas, Bronislaw Malinowski, and Margaret Mead in the early stages of their careers made their way about the planet in large part by ship, boats, and railways — not that these were always environmentally sustainable forms of transport—and still managed to develop illustrious careers in the process. Indeed, some people have opted to make their way to conferences, field sites, and meetings by train. While traveling on present-day cruise ships tends to be highly environmentally

unsustainable on a variety of counts, one possible option is travelling on a container ship, an undertaking that could make for an interesting ethnography. Perhaps we can learn something from our anthropological pioneers in the process of contributing to a socio-ecological revolution (Foster 2009, Baer 2018).

In keeping with the notion of slow travel, Glover, *et al* (2017:10) call for a shift toward *local scholarship* or *slow scholarship* “which would necessitate a significant inversion of priorities centered on issues that are more closely related to a university’s physical location.” They further argue:

Implicit here is a call to arms for academics to travel overseas less and to contemplate and connect at home more, suggesting an embedded critique of the normative role of air travel in universities today. However, importantly, this is unlikely to be effective if it is interpreted as an appeal for individual academics to ‘resist’ the internationalisation movement – this approach must also be valued and acknowledged institutionally and reflected in policy and promotion practices (Glover *et al* 2017:10).

CONCLUSION

Attending conferences and conducting research, including in the case of anthropological research, in faraway places can be enriching and exhilarating experiences. I suspect that networking and status are a more important benefit of conferences than the presentations that are given. It could also be suggested that academics are minor players in the air travel industry, and that even if they all stopped air-related work travel it would make no long-term difference. But that does not mean an example should not be set, or that we should encourage destructive behaviour. While some may argue that academics, including anthropologists, contribute to a relatively small fraction of the greenhouse gas emissions emanating from flying, they should get on with their work and thus contribute to improving the human condition in this way. However, such an assertion is elitist and perhaps even morally irresponsible. Indeed, the seriousness of climate change compels us to reconsider many behaviours and parts of our culture that we generally take for granted: what we eat, what kind of work we do, how we shelter ourselves, and last but not least, how we move around the planet and progress in our careers.

Kevin Anderson asserts:

The issue is not flying in and of itself, but the fact that flying is such a carbon-fuel-intensive and emissions-spewing activity. There may come a day when we can substitute high-carbon kerosene for a zero or very low carbon alternative, at which point, from a purely climate change perspective, we can resume flying. So I'm not saying that we have to eliminate flying forever, but need to hugely curtail it until we develop a truly zero carbon aviation sector. But we're very far from that point. Until that day arrives – if it ever does – we have no choice but to radically cut how much we fly (Anderson & Nevins 2014:214-215).

Anderson does not advocate an individualistic approach to flying less, but maintains that individual actions may serve as the catalyst for deeper systemic changes that contribute to climate change mitigation (Anderson & Nevins 2014:216).

For academics, flying to conferences, meetings, and research sites have become pivotal to career advancement within an increasingly corporatised university sector. Research needs to be done in how to make video conferencing as satisfactory for networking and schmoozing as face to face conferencing. Given the dangers that climate change poses for people around the world, particularly in developing countries where much anthropological research has been conducted, it is imperative that anthropologists and other scholars begin to seriously grapple with the implications of their flying behaviour. There are many possibilities of networking via ongoing regular group meetings using modern telecommunications technology.

We could propose that there needs to be administrative change. For example, it might be necessary for all flights to have to be justified in terms of their contribution to academic and research work before they are undertaken, with accounting for the emissions made by the traveller, and describing their efforts to offset them or justify them. While it may be useful to promote Parke Wilde's petition to draw attention to the issue at the university administration level, and in councils of Universities, there is also a need for anthropologists and other academics to work with climate action groups on various fronts, including social justice and environmental issues revolving around airplane flights. For the most part the environmental and climate movements have not done much with the matter of growing greenhouse gas emissions from airplanes. Exceptions include Friends of the Earth and Plane Stupid, Reclaim the Power, and the Global Anti-Aerotropolis Movement. Academics can also work with activists to ensure that the emissions from air transport are included in CO₂ and other greenhouse gas emission reduction goals internationally, and act to hold airlines to their promises to reduce emissions – as

a whole, not just per flight mile. We may need to do further political work to attempt to cut down the economic ideology that growth of customer numbers is inevitably a good thing, and do more work on environmental sustainability.

Aeromobility, along with automobility, needs much more consideration in terms of its social and environmental impacts than it has received to date. Critical anthropologists need to do more than merely promote green consumerism on the part of travellers, by engaging in a critique of the airline industry itself, which promotes environmentally unsustainable travel practices. Airplanes, along with private motor vehicles, as facilitators in numerous ways of global capitalism, exemplify “new forms of excessive mobility and consumption, which undermine long-term forces of production through changing climates, eliminating scarce resources, and undermining some conditions of human life and its predictable improvement” (Elliott & Urry 2010:132). Shifting to a more sustainable transport system, which would entail far fewer private motor vehicles and far less reliance upon air transportation, will continue to be a vexed challenge even within an eco-socialist world system. But I am convinced that a serious discussion about how to create a more socially just and environmentally sustainable transport system than presently exists, within the parameters of the capitalist world system, will require major social transformations at various levels, ranging from the local to the global. Given that an increasing number of anthropologists who have turned their attention to mobility studies, perhaps some of this attention can be directed toward the aircraft and airline industries and how they contribute to an increasing number of flights which result in greenhouse gas emissions and contribute to anthropogenic climate change. Unfortunately climate change particularly adversely impacts poor people around the world, particularly those residing in developing countries. However, at a macroscopic level, perhaps more than any other issue, climate change allows critical anthropologists and other critical scholars to contemplate the contradictions of the existing capitalist world system and how each and every one of us is at some level embedded in it and even complicit with it. Thus, the heavy responsibility that we bear as academics is to engage in a critical anthropology not only of the past and present but also the future, in which we contemplate how to contribute to the creation of an alternative world system, one committed to social justice, democratic processes, environmental sustainability, and a cooler planet – and one in which humans can live in harmony with one another as well as with the biosphere.

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