*Academic flying, climate change, and ethnomusicology:
Personal reflections on a professional problem*

*Catherine Grant
Queensland Conservatorium Griffith University*

*This is an author-produced PDF of an article accepted for publication in
Ethnomusicology Forum. Until publication, citation information is:*

*Grant, Catherine (in press). Academic flying, climate change, and
ethnomusicology: Personal reflections on a professional problem.
In Ethnomusicology Forum. <https://www.tandfonline.com/loi/remf20>*

Abstract

Continuing the tradition of reflexivity in ethnomusicological writing, this article represents a personal position statement on the practice of ‘academic flying’. In the context of climate change concerns, I table the reasons for my discomfort with my own academic flying, present my options (as I see them), and reflect on possible career implications. By making public my stance on academic flying, I hope to motivate greater individual and collective consideration of the environmental impact of our ethnomusicological activities, and to encourage researchers and their institutions, universities and professional associations to consider ways of actively supporting a future in which the environmental impact of academic flying is an integral ethical and moral consideration in our work.

What follows is necessarily personal. It has its genesis in my increasing sense of discomfort, over the past year or two, with a certain aspect of my work as an ethnomusicologist. It can be read as my personal position statement on what I see as a matter of professional concern. In this sense, my reflections here reveal something of the ‘constant vacillation between the personal and the professional and its uncomfortable truths’ in my own work and life (Rasmussen in Miller et al. 2016: 196).

However, I intend this article to be more than self-reflective, and something other than self-reproaching. It is an intentional response to recent calls in our discipline ‘to disseminate our research, teaching, and activism in ways that are more public and more political’ (SEM 2017). I hope it may open up a wider intellectual and moral space for sustained, focused, ethnomusicological discussion on a matter that, despite its relevance to our work, remains only marginally addressed. I also hope it may act in acknowledgement, encouragement, and support of those of my colleagues who are experiencing a discomfort on this issue similar to mine (and I have been surprised and somewhat relieved to recently find several of you). And perhaps most importantly, I hope it may stimulate greater individual and collective consideration—without shame or guilt—of our responsibilities as ethnomusicologists in relation to the issue at hand. That issue is flying.

If the aviation industry were a country, it would rank in the top 10 emitters of carbon dioxide (CO₂) in the world (Aschwanden 2015). Moreover, emissions from flying are forecast to double or triple in the next thirty years (ICAO 2017). Aircraft emissions are disproportionately problematic for climate change, with around 2.7 times the warming impact of other emissions, because they are emitted at altitude (ICAO 2017; IPCC 2014a). According to many leading climate scientists, flying therefore needs to be urgently reduced if global warming is to remain within two degrees Celsius of pre-industrial levels (Becken & Mackey 2017; ICAO 2010; Rogelj et al. 2016). That, in turn, is essential if catastrophic climate change is to be avoided (UNFCCC 2016).

Currently, only around two to three percent of the world's population flies internationally (Gössling and Cohen 2014) and many academics (particularly those living in developed countries) are among these privileged few (Wilde 2017). Carbon footprints are generally higher for those with a higher degree and higher incomes (Balmford et al. 2017), and flying may constitute a substantial proportion of academics' carbon footprints: according to one study on conservation scientists, for example, the share was around two thirds (Fox et al. 2009).

One of the most obvious and effective ways, then, for academia at large, and the discipline of ethnomusicology specifically, to reduce carbon emissions is by reducing 'academic flying'—that is, reducing plane travel for purposes of attending meetings and conferences, carrying out fieldwork, and undertaking other professional activities. Scholars across diverse disciplines are beginning to question whether frequent academic flying is necessary, sustainable, and even ethical (e.g. Bows-Larkin 2015, who hasn't flown since 2005; Nevins 2014; Rosen 2017; Wilde 2015). Ethnomusicologists have long carefully considered issues of power, privilege, ethics, responsibility and sustainability in their work. Yet for many of us, the impact of our air travel avoids scrutiny, despite (or perhaps because of) the fact that flying is often inextricably linked to our professional identities and responsibilities.

In the remainder of this reflective article, I offer myself as a case study to argue that the role of air travel in ethnomusicology, and in our work as scholars more broadly, is deeply problematic. By beginning the next section with an attempt to quantify my academic contributions to global carbon emissions, my intention is not to jolt or cajole others to action, nor to incite change through guilt (as much climate change advocacy has been accused of trying to do). Rather, it is to lay out as candidly as possible the cause of my moral discomfort so that readers may understand why I feel the need to take personal action, despite some criticism of such small-scale, individual attempts to mitigate what is clearly a systemic global problem (e.g. Klein 2014). Later in this article, I suggest a practical pathway of personal and systemic change that I believe optimises my chances of meeting the expectations of an academic life while better aligning my scholarly activities with my values.

Personal reflections on a professional problem

Over the last few years, as I have attempted to become better informed about the challenges facing our planet, I have made steady progress in mitigating my personal environmental impact. Small changes in my behaviour have led me to be able to reduce my individual carbon footprint to around two-thirds of that of the average Australian.

In my professional life, though, my values and behaviour have remained markedly misaligned. Between 2014 and 2016, for example, I made eight international flights and two domestic flights for academic reasons (compared with three domestic flights for personal reasons) (see Figure 1). Over that three-year period, this academic flying injected far more carbon dioxide into the earth's atmosphere than any other single activity I engaged in. In 2016, for instance, it was 4.14 metric tonnes, representing an enormous 42% of my total carbon emissions for that year.¹ That amount (4.14 metric tonnes) is also more than double the projected globally sustainable level of *total* annual emissions per capita: anything more than an annual average of two metric tonnes of CO₂ emissions per person is consistent with the earth's temperature rising more than two degrees Celsius above pre-industrial levels, and thus risks leading to catastrophic climate change (UNEP 2015).

¹ Total 9.84 metric tonnes, as calculated on <http://www.carbonfootprint.com/calculator.aspx>, which accounts for house, transport, and 'secondary' emissions (including from food and clothing). The margin of error for my calculation may be relatively high: the calculator does not account, for example, for my vegetarian diet and certain other emission-reducing consumer practices I have adopted.

Year	Flight	Purpose	CO2 emissions (metric tonnes)
2014			4.96
Jun	Newcastle (Australia) TO Denpasar (Indonesia) (transfer Brisbane); one-way	Presenting paper at International Council for Traditional Music (ICTM) Study Group Symposium	0.67
Jul	Denpasar TO Phnom Penh (Cambodia) (transfer Singapore) TO Newcastle (Australia) (transfer Brisbane)	Conducting research fieldwork (4 weeks)	1.53
Sep	Newcastle (Australia) TO Washington DC (USA) return (transfers Brisbane; Los Angeles; Detroit)	Delivering invited presentation at international cultural sustainability symposium, Smithsonian Institution	2.42
Nov	Newcastle (Australia) TO Melbourne (Australia) return	Presenting paper and participating in panel at Musicological Society of Australia conference	0.34
2015			1.70
Jun	Brisbane (Australia) TO Phnom Penh (Cambodia) return. (transfer Singapore)	Conducting research fieldwork (6 months)	0.93
Jul	Phnom Penh (Cambodia) TO Astana, Kazakhstan return. (transfers Bangkok, Almaty)	Presenting paper and participating in panel at ICTM World Conference	0.77
2016			4.14
May	Brisbane (Australia) TO Washington DC (USA) return. (transfers Los Angeles; Detroit)	Delivering invited keynote at international cultural sustainability symposium, Smithsonian Institution	2.09
Jul	Brisbane (Australia) TO Penang (Malaysia) return. (transfer Singapore)	Presenting paper and participating in panel at ICTM Study Group Symposium	0.86
Sep	Brisbane (Australia) TO Phnom Penh (Cambodia) return. (transfer Singapore)	Teaching and conducting research for my university's International Mobility (short-term study abroad) Program	0.93
Dec	Brisbane (Australia) TO Adelaide (Australia) return.	Presenting paper at Musicological Society of Australia conference and chairing annual meeting of ICTM Australia-New Zealand Regional Committee	0.26

Figure 1. My academic flights 2014–2016. Unless otherwise stated, all flights are return, economy class, and the shortest route to destinations permitted by institutional regulations. Emissions were calculated using the International Civil Aviation Organization's Carbon Emissions Calculator (ICAO 2016).

Figure 2 shows the average per capita CO2 emissions 1980-2015 for Australia and the three other countries in which I have conducted ethnomusicological fieldwork: Vietnam (in 2011), Cambodia (annually 2013-2016), and Vanuatu (in 2017). It is no coincidence that the average emissions in each of the four countries roughly corresponds in order and degree with their respective Human Development Indices (HDI),² a composite measure of quality of health, education, and material standard of living (HDRO 2016). That is because Australians like me, having on average considerably more money at our disposal than people from Vietnam, Cambodia, or Vanuatu, are also more likely to expend our privilege on carbon-emitting activities, like flying. Flying is a matter of privilege.

² Vietnam, Vanuatu, and Cambodia rank 116th, 134th, and 143rd respectively, out of the 188 countries for which an HDI exists. Australia ranks second only to Norway (HDRO 2016).

Figure 2. Average CO2 emissions per capita (metric tonnes) for Australia, Vietnam, Cambodia, and Vanuatu, 1980-2015. Source: Human Development Reports Office (HDRO), 2016.

Australians currently emit an average of 16.3 metric tonnes of carbon dioxide per year, compared with an average of around 11 tonnes per year for industrial nations, and a worldwide annual average of around 4 tonnes (Carbon Footprint 2016). While my carbon emissions are lower than those of the average Australian, my academic flying *alone* in each of 2014, 2015 and 2016 still emitted more carbon dioxide than the average citizen of Cambodia, where I was conducting my research fieldwork in those years. The difference is of an order of magnitude: in 2014, my academic flying alone emitted 16.5 times the *total* annual emissions of an average citizen in Cambodia, and in 2016, nearly 14 times (see Figure 3). My comparatively lesser academic flying in 2015 was primarily due to a 6-month research fellowship in Cambodia, which limited my travel for that period. Even so, my two international return flights in that year emitted more than 5.5 times the total average annual emissions of a Cambodian person.

Figure 3. CO2 emissions (in metric tonnes) for my academic flying in 2016, compared with average annual per capita emissions in Cambodia (HDRO 2016).

These statistics give me pause to reflect: when we music researchers carry out fieldwork, dissemination activities, and advocacy on issues such as the global refugee crisis, poverty, civil unrest, and cultural endangerment (all topics of recent ethnomusicological research), how do we account for the fact that, through our frequent academic flying, we are contributing to a global intergenerational crisis that is set to tremendously exacerbate these and other issues of social justice and human rights (UNHCR 2015; Carrington 2016)? Canadian environmentalist David Suzuki has referred to climate inaction as ‘criminal negligence through wilful blindness’, and a ‘crime against future generations’ (2013: para.11-12). Impacts of climate change are anticipated to be particularly damaging in poorer areas of the world, areas that have least contributed to the problem of climate change (Chancel and Piketty 2015) and that have fewest resources to cope with it (IPCC 2014b). These areas are home to peoples and cultures with which the discipline of ethnomusicology has historically been most concerned. Some music researchers, perhaps most evidently those working in ecomusicology, are keenly aware of the complex ethical concerns that arise from the relationship between our work and the physical environment, and the ways in which our work is environmentally political (Allen, Titon and Glahn 2014); some ecomusicologists have also specifically explored the impacts of climate change through the lens of music practice and research (e.g. Pedelty 2012, 2016; and several authors in Allen and Dawe, 2016). Yet any discourse about climate change in relation to academic activity in general, or academic flying in particular, has always been, and remains, both minimal and peripheral to our thinking as music researchers. Surely the principle of climate justice should feature no less in our research ethics than those principles of inclusion, respect, and mutuality that lie at the very core of contemporary ethnomusicological approaches to scholarship?

I find these concerns particularly acute given my research focus: music endangerment and sustainability. An ongoing research project of mine in this area explores the relationship between cultural sustainability and social justice in Vanuatu, where climate change, an issue of social justice, threatens the vitality and viability of traditional music and other cultural practices. In 2015, parts of Vanuatu were devastated by Cyclone Pam, destroying homes, livelihoods, agriculture, community infrastructure, businesses, and wreaking havoc with intangible cultural practices. As the climate warms, such extreme weather events are set to increase in frequency and magnitude, placing Vanuatu, its people, and its linguistic and cultural heritage at risk. Sea-level rise, coastal erosion, and ocean acidification due to climate change present further risks to food security, tourism, and sustainable development in Vanuatu, potentially leading to humanitarian crisis (UN n.d.). By flying to Vanuatu to research how climate change threatens the sustainability of local culture (as I did in November 2017), I am acutely and uncomfortably aware that I am, ironically, contributing to the very problem my research seeks to understand and ultimately help mitigate.

While broader concerns regarding the environmental impact of academic flying are relevant across all academic disciplines, some considerations are specific to ethnomusicology – most saliently, the integral nature of fieldwork to our scholarly activities. Recent shifts in conceptualisations of fieldwork in our discipline (e.g. Titon 1997, Nettle 2005) have both reflected and instigated a greater tendency (and acceptability) for researchers to undertake fieldwork within their own communities, or in the geographical proximity of their own place of residence. These shifts have also seen the rise of the internet as a locus for fieldwork (Wood 2008), which (for such research) reduces or even obviates the need for carbon-emitting travel. Rapid developments in internet reach, stability and speed have meant that despite some limitations (for example, in terms of real-time musical collaboration), the internet is increasingly viable as a site for fieldwork – for example, through tools enabling performance live-streaming and video-based learning and teaching (Alge 2011, Falk 2013, Stokes 2009).

Notwithstanding such travel-reducing shifts in fieldwork practices, much ethnomusicological research still incorporates fieldwork in a physical location other than the researcher's place of residence. For many scholars, then, flying remains an integral part of what it means to undertake fieldwork. If we accept that ethnomusicology is centrally concerned with understanding music and music-making across the rich diversity of human cultures and societies (Nettl 2005), then until such time as people from across that full diversity of cultures are enabled and empowered to participate in academic research and discourse (including conference attendance and other forms of research dissemination) on a level playing-field as those of us who are economically more privileged, it seems that travel, including flying, will remain a core part of what it means to 'do' ethnomusicology. In this sense, concerns around the ethics of academic flying are inextricably wound up in much wider and deeper concerns around the power imbalances inherent in academic research in general, and ethnomusicological fieldwork in particular (as described in Titon 1997, 98-99; see also Grant, Pettigrew and Collins 2017).

Possible pathways

In the face of these concerns, what are my options, overall? Here, I reflect on some possible pathways forward for me as an individual—from stopping flying altogether, to moderating my flying practices, to advocating for change within academic systems and institutions—and consider their relative challenges and merits.

One possibility would be to simply cease academic flying altogether, the single course of action that would obviously most shrink my carbon footprint. In Australia, however, with its vast overland distances and geographical isolation, this would be a radical decision in career terms. While researchers in certain other locations (such as the UK or Europe) may have overland travel options available to them (particularly for networking-related travel such as conference attendance, given proximity to leading academic institutions and the head offices of professional organisations including British Forum for Ethnomusicology and International Council for Traditional Music), restricting my academic activity to the 8-hour road- or train-travel radius around my home city doesn't even get me as far as the nearest state capital (Sydney). Even if my university deemed this acceptable according to the terms of my employment, it would surely soon lead to career demise. Academic career advancement—maintenance, even—is predicated on a level of national and international activity; for early- and mid-career scholars at least, international flying (to deliver invited keynotes, for example) is an important indicator of success and esteem. Flying enables career opportunities that are currently not accessible to an academic who chooses not to fly: the conferences of the major professional societies in my discipline (including International Council for Traditional Music [ICTM] and the Society for Ethnomusicology) typically require in-person delivery of papers, panels, and keynotes; regulations about roles on committees and executive boards stipulate that meetings and conferences must be attended in person; and so on. It therefore seems to me that the likelihood of failing to build an outstanding academic career due to a decision to quit or significantly limit flying is considerable, particularly in the case of early-career researchers, for whom tenure and a strong international profile are not yet secured. In fact, this risk seems roughly inversely proportional to academic seniority. Geographer Alexandra Ponette-González, who has cut back on her own academic travel to reduce carbon emissions, acknowledges that her tenured professor status allows her to be selective in conference attendance and to turn down speaker invitations without marked career repercussions; she advises against early-career researchers adopting this strategy (2011).

Here I am reminded of ethicist Peter Singer's wry observation about pacifism: just as 'we cannot embrace complete disarmament while others stand ready to use their weapons' (2010: 263-4), for early-career academics to reduce their academic flying to sustainable emissions levels while others go about business as usual may be a noble but unwise and ultimately self-defeating ideal, at least in career terms. It is also extremely difficult to do. I was reminded of this in early 2016 when I was asked to convene my institution's mobility (short-term study abroad) program for that year. As a newly appointed lecturer on a 12-month contract, to decline the request on moral (or any other)

grounds would have been injudicious. The program ultimately saw 17 undergraduate students and four staff members travel for 10 days to India, China, or Cambodia, collectively contributing well over 20 tonnes of carbon dioxide to the earth's atmosphere. (My own return flight to Cambodia for the program amounted to over three times the amount an average Cambodian emits in a year; and I had five students in tow.)

It is only due to my resolve throughout 2016 to limit my future flying that my academic flying emissions for 2017 were low in comparison with previous years (though still involved an international flight, to Vanuatu, for research fieldwork). As one example of several, I chose not to attend the 2017 ICTM World Conference in Limerick, despite the acceptance of a panel on academic flying and climate change that I proposed with two other early-career researchers: the irony would simply have been too great for the three of us to fly to Ireland from Australia, New Zealand, and Canada, to make the case for the need to reduce flying. Our request to present virtually was granted following considerable negotiations with the conference organising committee. We were ultimately offered (and accepted) two time-slots allocated between the three of us, with the proviso that one of us attend the conference physically; we offset the carbon emissions of the attending presenter through a Gold Standard offset provider. We used Google Hangouts to connect and present in real-time and participate in discussions. The panel—we believe the first virtual panel in the history of the ICTM—was featured on national Irish radio following the event (available at <https://soundcloud.com/soundsdoable/culture-file-academic-flying>), and led directly to the resolution of the ICTM Applied Ethnomusicology Study Group to accept remote presentations 'for environmental or economic reasons' at its 2018 Symposium in Beijing (H. Schippers, personal communication, 2 September 2017).

Bigger-picture questions arise here about the key global loci of ethnomusicological discourse and debate, and the implications for fostering a truly global scholarly discipline. With its first ever conference in Central Asia (Kazakhstan) in 2015, the International Council for Traditional Music laudably continues to counteract the Eurocentric tendencies that characterised some aspects of our discipline past decades. Yet in terms of carbon emissions, a conference less geographically proximate than usual to the majority of ICTM members risks increasing the total flight mileage (strong local delegation notwithstanding), and therefore the total carbon emissions generated by the event. I am not arguing here either in favour of or against this choice of venue – it had major advantages in terms of inclusivity and access for scholars from that region – but rather, I wish to suggest that environmental impact be one explicit consideration in such decision-making, alongside inclusivity, accessibility, cost, and many others.

The possibilities for more environmentally sustainable conference practices are many. A glance at the practices of some other scholarly disciplines reveals various tried and tested models for conference design that allow for extended real-time informal discussion and networking, and that result in vastly reduced carbon emissions when compared with more conventional conference models. One example is the 'Signs of Change' sustainability conference in New Zealand in 2010, which had one central in-person meeting location with high-definition video links to six regional centres. This 'mixed' model, involving face-to-face participation alongside online technologies, offers a response to any concerns or criticisms about the lack of opportunity for informal, in-person interactions in technology-mediated conferences. The conference purports to have reduced emissions by 85,000 kg compared with a similar size conference held in a single meeting location ('Signs of Change', 2018).

Another charge that is sometimes raised against efforts to reduce academic conference flying is that it appears to deny scholars from less developed countries something that those from more affluent (and/or freer) locations have enjoyed for decades: namely, the ability to participate in academic events and discussions. Such an argument is misguided: the key concern is not ensuring that scholars from developing countries have the opportunity to fly – it is ensuring they have the opportunity to participate in academic discussions. In that regard, our current models are far from ideal (Grant, Pettigrew and Collins 2017). Low-emission conference models using digital technologies can embrace participation by scholars across dispersed geographical locations,

including those in developing countries, far better than many ‘standard’ conference formats. One example is the ‘nearly carbon-neutral’ conference (with an accompanying practical guide for implementing such a model) that was developed and delivered in 2016 at University of California, Santa Barbara (UCSB 2016). That event enabled easy information-sharing among participants (including via text, web links, audio, and video, allowing for varying internet strengths and access), strong informal networking (virtual chat rooms / ‘hangouts’), and structured ways to engage with presentations (for example, via moderated, extended discussion forums on keynotes and papers). If our academic music conferences were carefully designed from the outset to enable full participation by those who are unable or choose not to attend physically, this would be a major step *toward* greater accessibility and inclusion, rather than a step away from it.

Fieldwork raises its own set of questions as regards minimising carbon impact. For now, fieldwork seems likely to remain a core part of ethnomusicological practice, for reasons outlined in the previous section. In my case, having flown to Cambodia on fieldwork five times in the past six years, my relationships there are such that I feel a moral responsibility (and a wish) to maintain them, which I feel is only possible at sufficient depth in person. My desire to limit my carbon emissions from academic flying therefore must be weighed against my values around honouring these existing relationships. This challenge is likely to arise for all carbon-emission-aware ethnomusicologists with well-established relationships with a geographically distant community. Such researchers (myself included) might consider emission-reducing strategies such as longer but fewer fieldwork trips; supplementing in-person fieldwork with virtual research approaches where possible; and simply carefully and critically reflecting on the purpose, intentions, and value of each fieldwork-related flight we make. Early-career researchers without such long-established relationships, on the other hand, might be encouraged by their research mentors and professional organisations to consider carbon emissions from academic flying as a factor in their decision-making on fieldwork sites, and career-building activities more generally.

Taking these possibilities for systemic change into account, a realistic alternative to ceasing my own academic flying could be to advocate for change from within: to seek opportunities to raise the issue within institutions and professional organisations, and propose ways to address it (some of which I suggest later this section). If done skilfully, this may entail low relative risk to my career. Choosing to advocate for systemic change in place of taking individual action would also capitalise on the consideration that reducing my own carbon emissions (by stopping flying) will obviously not, in itself, meaningfully reduce global CO₂ emissions or halt dangerous climate change, given the vast scale of the problem and my minuscule relative contribution to it. I find this logic very seductive, because it effectively absolves me from personal responsibility. It is also a kind of ‘moral self-licensing’ (Merritt, Effron and Monin 2010): it sees my advocating for change as an excuse for my continuing to fly. However, advocacy without a level of personal action seems to fall somewhere between insincere and hypocritical—quite aside from it being emotionally and psychologically arduous (I find) to believe one thing and do another. Moreover, in my experience, witnessing and understanding the behaviours of those around us can be a powerful agent for individual change: my own stance on academic flying, if well-articulated and backed with action, may influence to some degree the thinking and actions of my colleagues on the matter. In time, with a critical mass of like-minded academics, this may eventually facilitate systemic change too.

For these reasons, it seems to me that the most ethically defensible course of action for me to take is to reduce my own academic flying to the extent that permits me to fulfil (if not to exceed) the requirements and expectations of an academic career, while simultaneously advocating for systemic change. In terms of personal action, I am therefore aiming to limit my academic flying emissions for the three-year period 2017–2019 to under 1.8 metric tonnes per year on average—that is, a reduction by 50% of my average academic flying emissions in 2014–2016³. Toward the end of this period, I will re-evaluate my emissions reduction target from 2020, with an eye to further

³ My total CO₂ emissions from academic flying for 2017 equalled 0.32 metric tonnes, generated by a single return fieldwork trip to Vanuatu (calculated via ICAO 2016).

reduce my academic flying as I move into mid-career. Both these approaches—an initial effort to cut academic flying by half, and further effort to reduce flying as a researcher becomes more established—are recommended by the Tyndall Travel Strategy, an intra-institutional code of conduct to support a low-emissions research culture that may serve as a useful blueprint for researchers and institutions generally (see Tyndall Centre for Climate Change Research 2015 for further details, including practical tools to help guide travel-related decisions).

I also intend to make more intentional choices around my academic travel: choosing conference attendance judiciously, prioritising those events likely to yield best outcomes; requesting video-conferencing for others (even if the request is declined, it may raise academic climate awareness); maximising benefits and outcomes of each trip through careful preparation; and making fewer but longer trips where possible, and multi-leg rather than return ones. I plan to offset all carbon emissions from my remaining academic flying through a Gold Standard offset provider. As a way to raise consciousness within academia of the environmental impact of academic flying, I have begun (with some success) to invite my institution or funding body to cover the costs of those offsets (for example, by requesting and carefully justifying offset funding in any grant applications I make that involves air travel). Reducing flying does not equate to scholarly disengagement, and I am motivated to explore the extent to which new technologies may facilitate my international engagement in academic discourse and networking in alternative ways. I also strive to further reduce my personal carbon footprint in my non-academic life, commensurate with my professional efforts to that end.

At the level of advocating for systemic change, the possibilities are many. While respecting that others may have different priorities and values, as a way to open up conversation I plan to seek opportunities to share with my institutional and disciplinary colleagues the reasons for my own choices around academic flying—for example in articles like this one, or the post recently published on the Society for Ethnomusicology's blog *Sound Matters* (see Grant, Pettigrew and Collins 2017); conference presentations (like the earlier-mentioned ICTM panel); meetings; and informally. I have begun to encourage consideration of carbon emissions and climate change in the development, funding, and evaluation processes surrounding my institution's student mobility schemes, international visiting scholar programs, and other initiatives involving air travel.

More broadly, I continue to seek opportunities to advocate within my university and professional organisations for greater consideration of the environmental impact of academic activities, particularly flying, and strategies for mitigating that impact. Possible actions that research centres, tertiary institutions, and professional bodies could take include:

- measuring and reporting on the carbon emissions generated by conference travel and other flying;
- developing guidelines around academic travel that take into account its environmental impact, and that actively discourage inveterate, immoderate flying;
- establishing benchmarks for reducing flights while still maintaining collaboration;
- easing the academic imperative to fly by reconfiguring academic measures of success to better acknowledge and respect individuals' choices around flying;
- choosing central meeting locations, to minimise air travel legs and distances; and
- supporting robust videoconferencing technologies, to reduce unnecessary air travel.

Most of these have precedent, for example in the academic flying reduction strategy of the Tyndall Centre for Climate Change Research (2015). Institutions and professional organisations may also mitigate the adverse impact of any academic flying that is deemed necessary through carbon offsetting and fossil fuel divestment. All these actions are already being agitated for in some institutions and academic disciplines (see, for example, the 'change.org' petition that calls for universities and professional academic bodies globally to take specific action to reduce academic flying; Wilde 2015).

Driving all these personal deliberations and decisions around my academic flying is the thorny question posed by Allen (2011: 392), which in my view warrants broader disciplinary

consideration in relation to climate change: ‘Is musicology part of the problem or part of the solution?’.

Closing reflections

Allsup and Shieh write of an ‘apprehension’ that early-career music researchers in particular will abandon efforts to notice and name inequities and injustices ‘because of a fear of being labeled “radical,” or the fear of facing rejection by entrenched journals and editorial boards because their research is too political or theoretical’ (2012: 49). Indeed, publicly articulating my stance on this issue takes some nerve. It sets me up for scrutiny and judgement of my flying behaviour, and of my moral standpoint on this issue more generally. It risks eliciting defensive reactions from those who interpret my statements as an attack on their perceived right to enjoy the privileges of academic travel. It risks my disciplinary colleagues making assumptions about my willingness to accept speaking invitations or otherwise participate in academic activities. And it is likely, I believe, to directly and substantially affect both the perception and the reality of how I will—or will fail to—meet the expectations and demands of an academic career, including the terms of my still-probationary appointment.

So I expect to meet considerable challenges in attempting to excel against the usual institutional and scholarly measures of success, while limiting my flying. That this undertaking should be so difficult suggests that for those of us entering academic life in this second decade of the 21st century, the notion of a highly successful *and* highly environmentally ethical academic career remains frustratingly contradictory. It seems likely to remain so until scholars across all levels of seniority, educational institutions, and professional organisations collectively commit to systemic change.

Until such time, despite risks and possible—perhaps even probable—costs to my future as an academic, I choose to take personal action, starting with the immediate commitment to reduce my academic flying. For whatever good might otherwise come from my research and other scholarly pursuits, I have simply reached a point of intolerance for my own complicity in that ‘criminal negligence’ of which Suzuki speaks, negligence primarily against the very groups of people I wish to most benefit from my academic endeavours.

Acknowledgements

Many thanks to Jeff Dyer, Brydie-Leigh Bartleet, Leah Coutts, and anonymous peer reviewers for providing feedback on an earlier draft of this article.

References

- Alge, Barbara. 2011. “Review Essay: Ethnomusicology and the Use (fulness) of the Internet in 2011.” *Yearbook for Traditional Music* 43: 267-271.
- Allen, Aaron S., Daniel M. Grimley, Alexander Rehding, Denise Von Glahn, and Holly Watkins. 2011. “Colloquy: Ecomusicology.” *Journal of the American Musicological Society* 64 (2): 391–424.
- Allen, Aaron S., Jeff Todd Titon and Denise Von Glahn. 2014. “Sustainability and Sound: Ecomusicology Inside and Outside the Academy.” *Music and Politics* 8(2): 1-26. <https://quod.lib.umich.edu/m/mp/9460447.0008.205?view=text;rgn=main> (accessed 11 December 2017).
- Allen, Aaron S., and Kevin Dawe, eds. 2016. *Current Directions in Ecomusicology: Music, Culture, Nature*. New York and London: Routledge.
- Allsup, Randall Everett and Eric Shieh. 2012. “Social Justice and Music Education: The Call for a Public Pedagogy.” *Music Educators Journal* 98/04: 47-51.
- Aschwanden, Christie. 2015. “Every Time You Fly, You Trash the Planet—And There’s No Easy Fix.” <http://fivethirtyeight.com/features/every-time-you-fly-you-trash-the-planet-and-theres-no-easy-fix/> (accessed 11 December 2017).

- Balmford, Andrew, Lizzy Cole, Chris Sandbrook and Brendan Fisher. 2017. "The Environmental Footprints of Conservationists, Economists and Medics Compared." *Biological Conservation* 214: 260–269.
- Becken, Susanne and Brendan Mackey. 2017. "What Role for Offsetting Aviation Greenhouse Gas Emissions in a Deep-Cut Carbon World?" *Journal of Air Transport Management* 63: 71-83.
- Bows-Larkin, Alice. 2015. "All Adrift: Aviation, Shipping, and Climate Change Policy." *Climate Policy* 15(6): 681–702.
- Carbon Footprint. 2016. "Carbon calculator: Carbon Footprint Calculator for Individuals and Households." <http://www.carbonfootprint.com/calculator.aspx> (accessed 27 September 2017).
- Carrington, Damion. 2016. "Climate Change will stir "unimaginable" Refugee Crisis, says Military." <https://www.theguardian.com/environment/2016/dec/01/climate-change-trigger-unimaginable-refugee-crisis-senior-military> (accessed 27 September 2017).
- Chancel, Lucas and Thomas Piketty. 2015. "Carbon and Inequality: From Kyoto to Paris." <http://piketty.pse.ens.fr/files/ChancelPiketty2015.pdf> (accessed 27 September 2017).
- Falk, Catherine. 2013. "YouTube and the Hmong Qeej." *Hmong Studies Journal* 14 (online version).
- Fox, Helen, Peter Kareiva, Brian Silliman, Jessica Hitt, David Lytle, Benjamin Halpern, Christine Hawkes, Joshua Lawler, Maile Neel, Julian Olden, Martin Schlaepfer, Katherine Smith and Heather Tallis. 2009. "Why do we fly? Ecologists' Sins of Emission." *Frontiers in Ecology and the Environment* 7(6): 294-296.
- Gössling, Stefan, and Scott Cohen. 2014. "Why Sustainable Transport Policies Will Fail: EU Climate Policy in the Light of Transport Taboos." *Journal of Transport Geography* 39: 197-207.
- Grant, Catherine, Aaron Pettigrew, and Megan Collins. 2017. "Academic Flying and Climate Justice: Toward an Inclusive and Sustainable Ethnomusicology." *Sound Matters: Official Blog of the Society for Ethnomusicology*. <https://soundmatterstheblog.wordpress.com/2017/09/28/academic-flying-and-climate-justice-toward-an-inclusive-and-sustainable-ethnomusicology/> (accessed 27 September, 2017).
- HDRO. 2016. "Human Development Data (1980-2015)." <http://hdr.undp.org/en/data> and <http://hdr.undp.org/en/countries> (accessed 27 September 2017).
- IPCC. 2014a. "Aviation and the Global Atmosphere." <http://www.ipcc.ch/ipccreports/sres/aviation/index.php?idp=64> (accessed 11 December 2017).
- . 2014b. "Summary for Policymakers." *Climate Change 2014: Impacts, Adaptation, and Vulnerability*, edited by Christopher Field, Vincente Barros, David Dokken, et al., 1-32. Cambridge: Cambridge University Press.
- ICAO. 2010. "Aviation's Contribution to Climate Change." http://www.icao.int/environmental-protection/Documents/EnvironmentReport-2010/ICAO_EnvReport10-Ch1_en.pdf (accessed 27 September 2017).
- . 2016. "Carbon Emissions Calculator." <http://www.icao.int/environmental-protection/carbonoffset/pages/default.aspx> (accessed 27 September 2017).
- . 2017. "Aircraft Engine Emissions: Definition of the Problem." <https://www.icao.int/environmental-protection/Pages/aircraft-engine-emissions.aspx> (accessed 27 September 2017).
- Klein, Naomi. 2014. *This Changes Everything: Capitalism vs. the Climate*. New York: Simon & Schuster.
- Merritt, Anna, Daniel Effron and Benoît Monin. 2010. "Moral Self-Licensing: When Being Good Frees Us to Be Bad." *Social and Personality Psychology Compass* 4: 344–357.
- Miller, Rebecca, Svanibor Pettan, Anne Rasmussen and Margaret Sarkissian. 2016. "Negotiating the Personal and Professional: Ethnomusicologists and Uncomfortable Truths." *Yearbook for Traditional Music* 48: 186-203.
- Nettl, Bruno. 2005. *The Study of Ethnomusicology: Thirty-One Issues and Concepts*. Champaign, IL: University of Illinois Press.

- Nevins, Joseph. 2014. "Academic Jet-Setting in a Time of Climate Destabilization: Ecological Privilege and Professional Geographic Travel." *The Professional Geographer* 66(2): 298–310.
- Pedelty, Mark. 2012. *Ecomusicology: Rock, Folk, and the Environment*. Philadelphia: Temple University Press.
- . 2016. *A Song to Save the Salish Sea: Musical Performance as Environmental Activism*. Bloomington, Indianapolis: Indiana University Press.
- Ponette-González, Alexandra and Jarrett Byrnes. 2011. "Sustainable Science? Reducing the Carbon Impact of Scientific Mega-Meetings." *Ethnobiology Letters* 2: 65–71.
- Rogelj, Joeri, Michel Den Elzen, Niklas Höhne, Taryn Fransen, Hanna Fekete, Harald Winkler, Roberto Schaeffer, Fu Sha, Keywan Riahi and Malte Meinshausen. 2016. "Paris Agreement climate proposals need a boost to keep warming well below 2 C." *Nature* 534(7609): 631.
- Rosen, Julia. 2015. "A Greener Culture." *Nature* 546: 565–567.
- Singer, Peter. 2010. "Is Open Diplomacy Possible?" <https://www.welt.de/debatte/the-world-in-words/article11622460/Is-Open-Diplomacy-Possible.html> (accessed 27 September 2017).
- SEM. 2017. "Position Statement in Response to the 2016 U.S. Presidential Election." http://www.ethnomusicology.org/general/custom.asp?page=PS_Election (accessed 11 December 2017).
- Signs of Change. 2018. www.signsofchange.org.nz (accessed 4 May 2018).
- Stokes, Martin. 2009, June. "Music, Sound and Multimedia: From the Live to the Virtual." *Ethnomusicology Forum* 18(1): 177–179.
- Suzuki, David. 2013. "David Suzuki: Australian Scientists should be up on the ramparts." <https://theconversation.com/david-suzuki-australian-scientists-should-be-up-on-the-ramparts-18505> (accessed 27 September 2017).
- Titon, Jeff Todd. 1997. "Knowing Fieldwork." *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology*, edited by Gregory F. Barz and Timothy J. Cooley, 87–100. New York: Oxford University Press.
- Tyndall Centre for Climate Change Research. 2015. "Tyndall Travel Strategy: Towards a Culture of Low Carbon Research for the 21st Century." www.tyndall.ac.uk/travel-strategy (accessed 27 September 2017).
- University of California, Santa Barbara. 2016. "A Nearly Carbon-Neutral Conference Model: White Paper / Practical Guide." www.hiltner.english.ucsb.edu/index.php/ncnc-guide/ (accessed 4 May 2018).
- UN. (n.d.) "The Permanent Mission of the Republic of Vanuatu to the United Nations: Climate Change." <https://www.un.int/vanuatu/vanuatu/climate-change> (accessed 27 September 2017).
- UNEP. 2015. "Climate Action." <http://www.cop21paris.org/about/cop21>
- UNFCCC. 2016. "Summary of Paris Agreement." <http://bigpicture.unfccc.int/#content-the-paris-agreement> (accessed 9 April 2018).
- UNHCR. 2015. "Climate Change and Disasters." <http://www.unhcr.org/en-au/climate-change-and-disasters.html> (accessed 27 September 2017).
- Wilde, Parke. 2015. "Call on Universities and Professional Associations to Greatly Reduce Academic Flying." <https://www.change.org/p/universities-and-professional-associations-call-on-universities-and-professional-associations-to-greatly-reduce-flying> (accessed 27 September 2017).
- . 2017. "Calling Upon Universities and Professional Associations to Greatly Reduce Flying: Further Information and Frequently Asked Questions." <https://docs.google.com/document/d/1URRRh4zMSpvtZY08F9-Rkbx0qkNNmfzIzqOlqZWKxE/edit#heading=h.34azy73qb16c> (accessed 11 December 2017).
- Wood, Abigail. 2008. "E-Fieldwork: A Paradigm for the Twenty-first Century?" *The New (Ethno)musicologies*, edited by Henry Stobart, 170–187. Lanham, Maryland: Scarecrow Press.