

Section A		
Institution: The University of Manchester		
Unit of Assessment: 22b (Anthropology)		
Title of case study: Reframing understandings of the sonic environment in Okinawa, Japan		
Period when the underpinning research was undertaken: September 2015 – December 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name:	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Rupert Cox	Senior Lecturer in Social Anthropology	September 2003 - to present
Period when the claimed impact occurred: September 2015 – December 2020		
Is this case study continued from a case study submitted in 2014? No		
Section B		
1. Summary of the impact		
<p>Anthropological research undertaken since 2015 at The University of Manchester (UoM) has reframed understandings of the sonic environment in Okinawa, Japan. The research introduced multimodal methods of sound playback, changing the way people listen to and perceive the soundscape. It broadened the focus from how aircraft noise affects public health to how a broader 'soundscape' has an effect on historical and traumatic memories. Impacts of the research are evident in three areas:</p> <ol style="list-style-type: none"> 1. increasing public understanding of the effects of environmental sound in producing acoustic trauma in Okinawa; 2. re-focusing the complex political issue of the effects of US bases in Okinawa around a broader concept of the sonic environment in policy and legal spheres in Japan; 3. curating cultural heritage in Okinawa, using the preservation and interpretation of sound as an integral component. 		
2. Underpinning research		
<p>Research involving practice-based methods of sound recording and filmmaking was undertaken at UoM led by Dr Rupert Cox, alongside Professor Kozo Hiramatsu (an acoustic scientist, Kyoto University) and Professor Angus Carlyle (a sound artist, University of the Arts, London). The research was supported by grants from the Japan Society for the Promotion of Science (JSPS), Toyota Foundation and UoM. It built on prior investigations (beginning in 2007) on sound in Okinawa. Since 2007, the research has extended beyond a narrow focus on how aircraft noise from US military bases affects public health to demonstrate how a broader 'soundscape' shapes historical and traumatic memory and acquires cultural heritage value [1, 2, 3]. The findings expose the failure of established methods to account for the role of environmental sound in producing acoustic trauma. They demonstrate the significance of a broader individual and collective experience of sound, as opposed to narrower analytical approaches that focus on the effects of noise on health and habitus.</p> <p>Multimodal methods, which combined sound recordings with contemporary and archive film and interviews rendered as on-screen text, were used to create a film style and mode of public interaction. This innovation addressed the shortcomings of the 'Impact of Event Scale-Revised' (IES-R) method, used since the 1970s in psychology as a standard measure of trauma and late-onset post-traumatic stress disorder. The IES-R is a self-reporting measure based on a numerical scale to evaluate the intensity of trauma. It fails to</p>		

account for respondents' use of language or for environmental sound's capacity to communicate the experience of an event away from its original site [4].

Examples of this multimodal film style include the 50-minute film *Zawawa: the sound of sugar cane in the wind* [3, 5] and a curated art film installation *Cave Mouth and the Giant Voice*, commissioned for the 2015 London College of Communication exhibition 'Staging Disorder' [2]. The films revealed how, for Okinawans of the war and post-war generations, natural sounds 'carry baggage'. *Zawawa* demonstrated the research finding that sounds are not heard exclusively in the places where they occur but are 'heard' in the imagination of local people who have strong sound-memories from other places, based on their life experiences [3, 5]. *Cave Mouth and the Giant Voice* comprised an art installation including a 10-minute sound film, developed around an interview with a research participant, a survivor of the 1945 Battle of Okinawa, conducted in the cave where he had originally sheltered from the battle. The film was installed in a 5-meter long rectangular volume, reproducing spatial characteristics of the cave, with the interview transcript mounted on the exterior walls of the installation, alongside a 300-word interpretative text giving historical context for the battle. The art film installation takes understandings of acoustic trauma beyond clinical diagnostic categories and, through immersion in environmental sounds, taps into the intensities of people's experiences [2].

The multimodal research with participants in these films, and on Okinawa audiences' responses to them, found that natural sounds can have positive and negative associations. Negatively, natural sounds can result in sonic experiences of dissociation from present situations to remembering troubling episodes from the 1945 Pacific War and post-war period. Positively, natural sounds convey a sense of place that can acquire cultural heritage value as part of an official archive. These different associations and their roots in the concept of soundscape are evident in the responses by a variety of listeners to the audio-visual design of particular methods of playing back sounds. The research shows that sounds that relate directly to memories of war form part of a broader soundscape, which, alongside natural sounds, includes the sounds of places like Shuri Castle and devices like the sanshin instrument (see section 4), which are important elements of a cultural heritage that policy-makers and cultural influencers are keen on preserving as a 'precious legacy'.

3. References to the research

- [1] Cox, R. & Carlyle, A., (2016). The Cave Mouth: Listening To Sound and Voice in Okinawan War Memory. In: Saunders, N. J & Cornish, P. (eds.) *Modern Conflict and the Senses*. London: Routledge Press, pp. 123-142.
- [2] Cox, R. & Carlyle, A., (2015). *Cave Mouth and Giant Voice*. Installation for a public exhibition 'Staging Disorder' at London College of Communication, University of the Arts, London. Available @ <https://vimeo.com/124139457>.
- [3] Cox, R., Carlyle, A., Nishimura, A. & Hiramatsu, K. (2017). *Zawawa: The Sound of Sugar Cane in the Wind*. Available @ vimeo.com/240503920 (Password pachipachi).
- [4] Cox, R., Irving, A. & Wright C., (2016). Introduction: the sense of the senses. In: Cox, R., Irving, A. & Wright, C. (eds.) *Beyond Text: Critical Practice and Sensory Anthropology*. Manchester: Manchester University Press, pp. 4-27.
- [5] Cox, R., Carlyle, A. & Hiramatsu, K., (2020). *Zawawa*. Berlin: Archive Books.

Evidence of Research Quality: The research and outputs have been supported by peer-reviewed grants: Japan Society for the Promotion of Science (2015, GBP47,000) and; Toyota Foundation (2015 - 17, GBP35,000). *Zawawa* [3] has been selected for screenings across Europe and North America, including Skibbereen Arts Festival; Ethnografilm festival; Athens Ethnographia Film Festival; Displacements Virtual Film Festival (Society for Cultural Anthropology); Manifesta Festival, Liminaria, Palermo; Canadian Anthropology

Association Film Festival; Sjó International Anthropological Film Festival; Jean Rouch International Film Festival (one of 28 films selected from 730 submissions); and the Denver International Experimental Screen Festival.

4. Details of the impact

Okinawa is one of 47 prefectures in Japan. The population and surface area of its islands comprise about of 1% of Japan's totals but host over half of the 100,000-plus US military personnel in the country. The research achieved three types of impact:

1. Increasing public understanding in Japan of how environmental sounds can produce acoustic trauma.

The research-based film, *Zawawa* [3], was screened in seven public venues in Okinawa in September 2017 (3 universities and 4 community centres). The success of the multimodal design for playback was shown in the impact on audiences of the film's demonstration that natural sounds 'carry baggage' related to the war and post-war periods. The broadcast featured an interview with war survivor Tamotsu Tokeshi, whose testimony about the mnemonic aspects of sugar cane featured in the film. He commented that his involvement in the film reminded him of how he associated the natural sound of the 'whispering sugar cane fields' with the impending bombardment that preceded the US ground-assault. The clip also showed audiences commenting on the film's impact, making them hear familiar military aircraft sounds in new ways that reminded them of how disturbing they actually were. This impact was disseminated nationwide on the Japan Broadcasting Corporation (NHK) morning news, regularly viewed by more than 10,000,000 people, in a four-minute TV broadcast 'Echoes of Life' (26 October 2017). An international (English-language) version was broadcast more than 10 times in December 2017 on the NHK World's English-language international channel and watched in 160 countries and regions. In Japan where the mainstream media focus on the noise from the military bases is in terms of current political debates and anti-US activism [A, B], the broadcast created a new awareness of the film's importance in shaping Okinawans' understandings of sound and war trauma. Evidence of this is the testimony of [Text removed for publication] in Okinawa's prefectural government, who said the film and the broadcast created 'a new space for dialogue among people' [B].

The research and methods have had wide appeal, as evidenced by the multiple screenings of *Zawawa* across Europe and North America in festivals attended by professional practitioners and public arts circles. Its presence at the Jean Rouch Festival (November 2018), a world-leading ethnographic film festival and a major cultural event in France, substantiated the importance of the methods employed and their public value. It led directly to two invitations from the French National Centre for Scientific Research (CNRS) and the School for Advanced Studies in the Social Sciences (EHESS) to present the film, including at the Mucem in Marseilles (January 2020) as part of the *Salon des écritures alternatives en sciences sociales*, an extra-mural event of the Jean Rouch International Festival. The film has also been described in the *Guardian* as evidence of the positive and negative effects of noise [C].

The research-based installation *Cave Mouth and the Giant Voice* [2] was commissioned from Cox and Argyle by Christopher Stewart and Esther Teichmann for the London College of Communication exhibition 'Staging Disorder' (26 January to 26 March 2015), and was accepted for the experimental film club 'INTER #7: Sonic Spaces In Between' (Glasgow 2016) and the SIEF congress (International Society for Ethnology and Folklore, Gottingen, 2017). It was reviewed in two contemporary art journals (*Photographers' Gallery* and *Smiths Magazine*).

2. Re-focusing the political issue of the effects of US bases in Okinawa around a broader concept of the sonic environment in policy and legal spheres in Japan.

The impact on policy and legal spheres of the film *Zawawa* and the associated NHK TV broadcast is evidenced by the testimonies of the [Text removed for publication] Planning Department of Okinawa's prefectural government. [Text removed for publication] states that the research "*showed how aircraft noise pollution has brought back war memories to Okinawans and caused adverse impact on their health*" [B]. He added that he "*learned much from [the] research*" when he "*was preparing to make a plan to utilize former U.S. military sites*" [B], referring to the long debated and delayed removal of the Futenma base. [Text removed for publication] said the broadcast "*showed the importance of considering the memories of individuals when conducting...environmental measures related to U.S. bases*" [D], indicating the need to take into account detailed verbal accounts of sonic trauma alongside environmental surveys.

A further dimension to the re-focusing of debates about the effects of US bases around a broader concept of the sonic environment is that the soundscape concept - as it emerged in the use of multimodal sound design and playback methods to reveal listener perceptions - was apt and precise enough to be used as legal evidence. The Japan Soundscape Association (SAJ) has used the research in contesting an application to Japan's Patent Office, which seeks to register 'Soundscape' as a trademark in Japan. A patent lawyer in Tokyo has advised that the word 'soundscape' is not suitable for registration as a commercial trademark because it was coined half a century ago and has been used within Japan as well as internationally to indicate the sonic environment. [Text removed for publication] of SAJ states that Cox's research is being cited in the legal case as "*evidence of the term's analytic force and applications*" as it shows "*how the concept of soundscape can be part of local, national and international debates about the continued presence and activities of the US military bases in Okinawa by creating a new understanding about how 'noise' is constituted and how it effects public health and the environment*" [E].

3. Curating cultural heritage in Okinawa: using the preservation and interpretation of sound as an integral component.

The impact of the research on the field of cultural heritage is evidenced by a commission to create the Ryukyu Island Sound Archive (RISA) comprising Cox's recordings of Okinawan soundscapes (Okinawa is part of the Ryukyu Islands). These recordings are the primary data that underpin the playback and multimodal research methods. A contract for RISA was signed in June 2020 [F] with Alexander Street (AS) (part of ProQuest, the world's biggest online educational provider). RISA will go live in 2021 as part of the landmark collection 'Ethnographic Sound Archives Online', which is one of four online collections in AS's Anthropology Resource Library. AS has contractually committed to investing GBP220,000 in the collection (which includes an Open Access feature), of which GBP51,800 is specifically assigned to RISA.

The significance of the research and research methods to cultural heritage is highlighted by [Text removed for publication] of the Art Foundation (Okinawa Prefectural University of Arts) who says that "*What makes [Cox and colleagues] research significant is that they have been recording sounds based on the philosophy that sounds are heard by taking account of history. They are not recording sound waves that physically exist but recording sounds that exist in peoples' memories and in their cultural and spiritual activities. Making such sounds into an art work is an outcome that is successful as a significant achievement in the cultural history of Okinawa*". He strongly believes the Archive "*will become an*

important resource for Okinawa's cultural research. It will benefit all the people in the world who conduct research on Okinawa" [G].

The Ryuku Island Sound Archive also garnered the support of [Text removed for publication] the Department of Planning and the [Text removed for publication] at the Okinawa Prefectural Government. [Text removed for publication] believes the Archive will "show a new understanding of Okinawa's cultural heritage" [B], while the [Text removed for publication] says he intends to "inform Okinawan people living abroad [of the archive] through the network of Okinawans in foreign countries" [D]. He says, "I have a big hope that this will promote the preservation of our cultural heritage and environment and strengthen the ties of Okinawans" [D]. For the [Text removed for publication] (University of Ryukyus), "The sound archive developed by Dr Cox and his team... would be an influential effort in the cultural activities of islands as the first attempt in Okinawa to promote preservation and usage of regional cultural heritages through sounds. As it has an open access... we will make use of the resource and inform many other people beyond researchers. I strongly believe that Dr Cox and his team's research will make an impact on the methodology of conducting research on Okinawa and other islands in the Pacific region. It will also create a new axis to interpret sound as part of a cultural heritage" [H].

[Text removed for publication] of Okinawa Prefectural University of Arts states that the archive is "an innovative art concept" that "is significant as it archives sounds that should not be lost, including the sound of sanshin and of Shuri Castle" [I]. Sanshin is a local musical instrument, significant in the memories of Okinawan internees held in US military camps. Shuri, a World Heritage Site, is an old Ryukyu Kingdom palace, almost destroyed in the 1945 Battle of Okinawa and then rebuilt as a university campus, which was severely damaged by fire in 2019, meaning Cox's recordings in the Castle are a "precious legacy" [G].

5. Sources to corroborate the impact

- [A] Testimonial from Producer Taiki Toma, NHK journalist (23 October 2019) - 'Echoes of Life', broadcast on NHK TV News feature (broadcast 26 October 2017).
- [B] Testimonial from [Text removed for publication]
- [C] *The Guardian* 'Sounding it out: 'Listening to white noise put my life back on track', by Megan Nolan (17 November 2019).
- [D] Testimonial from [Text removed for publication] Okinawa Prefectural Government (27 December 2019)
- [E] Testimonial from [Text removed for publication] Aoyama Gakuin University (2 December 2019)
- [F] Contract for Archive from [Text removed for publication], Alexander Street, a Proquest company (June 2020)
- [G] Testimonial from [Text removed for publication], Art Foundation of the Okinawa Prefectural University of Arts and [Text removed for publication] at Meio University (20 November 2020)
- [H] Testimonial from [Text removed for publication], University of Ryukyus (11 November 2019)
- [I] Testimonial from [Text removed for publication], Okinawa Prefectural University of Arts (2019).