Navigating the complex dynamics of virtual, 'reciprocal', and sustainable knowledge exchange: community, students, researchers.

I'd like to start by giving a little context to the presentation, which may seem a little incongruous coming from someone who has a background in the analysis of live art and participatory practices but who has spent the last seven years largely working outside my disciplinary comfort zone to develop and promote cross disciplinary learning and research opportunities for students and staff at Brunel University. This was initially commenced when I held the position of Vice Dean Education for the College of Business, Arts and Social Sciences which is one of the three Colleges that make up Brunel University.

The result of this work was a three-year undergraduate degree focussed on the most pressing and urgent issues faced by humanity – to which I will return. In an attempt to improve my standing and leadership capacity in this complex arena; and having completed a PhD many years ago in Theatre Studies, I challenged myself to undertake a Master of Science by distance learning with the University of Edinburgh in order to facilitate my own trans-disciplinary understanding of global issues and to engage in alternative practices and approaches to research. So while I frequently refer to my own students as disciplinary nomads because of their choice to study on the Bachelor of Arts and Sciences in Global Challenges mentioned earlier - I have myself become something of an anomaly within the framework of research conventions within the institution. As a result, I have not only ended up embracing the opportunity to reduce the gap in the research / education divide, but I have found myself leading a two year project funded by Research England and the Office for Students (which has become a three year project, as a result of the pandemic), and have collaborated with a number of international partners to consider how student knowledge exchange brings benefits to students and to communities or organisations with which they engage.

My starting point for this presentation focusses on some of the activity which has taken place in relation to that project – the ESKE project. But starts with a parallel project (Z-lab) which my colleague Dr Olwenn Martin led on and which segues with the work that has subsequently been done as part of the ESKE project. I want to share this experience because it presents a pertinent example of many of the broader and ongoing issues of responding to the global challenge of food insecurity in the context of so called 'sub-Saharan' Africa. And more specifically in this example in relation to refugee resettlers in Zambia.

The pilot Z-lab project, [SLIDE] carried out over Zoom, did all it thought it could do to address power disparities (in this context, literal and figurative) and placed participatory co-creation and co-design methods at its heart, but as we quickly realised, there were multiple interlocking barriers to navigate. Let me attempt to paint a picture for you, using an example of one individual participant:

He stands up amongst his seated peers, a paper in hand, he's about to read a list of questions for us his virtual audience thousands of miles away. I am visible to him as a small head in a box on the zoom screen. I float there alongside the rest of our team located in various parts of Africa, the UK and Canada.

Today is the final day of a virtual co-creation workshop led by Dr Olwenn Martin and a team of, predominantly, but not exclusively, engineering academics who are the experts in their fields. We are here working with our existing partners and community members from the rural and remote location of Mayukwayukwa, Western Province, Zambia. Community members and agricultural facilitators have been working on site on a range of practical projects to respond to the challenges posed by a lack of running water, the absence of grid electricity, and long running food insecurity the impact of which

continues to increase as a result of the climate crisis; a crisis that contributes to more frequent and severe droughts, as well as devastating floods that aside from destroying crops contributed to another major outbreak of cholera in the country between October 2017 and June 2018.

Regardless of these realities, members of the community have these past three days built, adapted and have now demonstrated their co-created designs to the floating heads, who nod, smile and then finally applaud the ingenuity of the assembled community group who we can see in fragments through the multiple hand-held devices that link us to them. The virtual team are broadly pleased at being able to make anything happen in the face of seemingly endless logistic, technological and human challenges associated with carrying out such activity remotely.

But this man stands before us. He has patiently engaged with the workshop activities, and now it is his turn to ask questions – not about the technologies we have been experimenting with, but about something more fundamental. The first of these questions is quickly addressed, but for the second, there is immediate hesitation, uncertainty once the facilitator translates what he has to say:

He essentially asks us 'What's in it for you?' It is at once a simple question but at the same time one that generates a multitude of mixed and difficult thoughts and emotions that the remote team have been attempting to grapple with throughout this process: what are we doing, why we are doing it and how do we ethically navigate the deep underlying power dynamics that exist here as a microcosmic representation of the larger global and systemic injustices that persist and are perhaps perpetuated by our very actions – a UK controlled project to share knowledge, an attempt at some form of reciprocity despite the barriers of language, power and physical distance, to co-create what we hope will be effective solutions to address, on a small scale, some of the most immediate health and livelihood challenges that this community faces, without the luxuries of complex technology, finance or investment without constraints.

Mayukwayukwa as a refugee and resettlement community has existed for over fifty years. [SLIDE and animation?]

Mayukwayukwa, (est.1966) in the Kaoma District of Western Province of Zambia, is one of the oldest refugee and resettlement sites in Africa. In September 2019, Mayukwayukwa with a population of over 15,000, is home to Zambians, former refugees of Angolan ancestry and refugees from the Democratic Republic of Congo, Somalia, Rwanda and Burundi.[1] The refugee and resettlement site is approximately 16,700 hectares of land in one of the hottest and driest agroecological regions in Zambia.

This context plays a defining role in the types of agricultural production undertaken, (egs. cultivation of maize, rice, and cassava). It also determines the quality and quantity of the yield. In spite of numerous government, multilateral organisational and NGO interventions over five decades, farmers in this setting struggle to grow sufficient, high quality produce. This contributes to a lack of food security in Mayukwayukwa and leaves farmers in cycles of poverty and dependency. Indeed, the evidence suggests this region is no different from many places in Zambia which, although they embraced the Green Revolution approach to agriculture, have not seen the sorts of increases in productivity and subsequent food security formerly believed to be achievable. For example, even relatively recent interventions like that advocated by the Alliance for a Green Revolution in Africa or AGRA which promoted Green Revolution strategies to many LMIC countries in the continent, continue to fail to deliver the increases in

[1] UNHCR, 2019

productivity promised when AGRA was first set up by the Bill and Melinda Gates Foundation and the Rockefeller Foundation in 2006. [For those of you not familiar with the GR approach] Green Revolution agriculture intends to increase yields through the introduction of improved often patented seeds, along with the advocation for and use of chemical fertiliser. Inputs that require continual investment from either the government or the farmers themselves. However, since the arrival of AGRA in Zambia, Zambia has only achieved a 27% increase in maize productivity over the 12 years since its introduction, and this is in spite of doubling the amount of land used to grow the maize, indicating that the increase was not due to more efficient use of land through the inputs or improved farming practices, but is due to the extensification of land use for crops. (Wise, 2020, p14). Indeed, the growth of maize yield was actually higher before AGRA was introduced at 4.2% per year, compared to the 2% annual increase achieved over the last 12 years. In addition, although Zambia achieved AGRA's goal of 50kg/ha of fertiliser use, this hasn't resulted in the desired impact of increased crop yields and consequent lower rates of poverty. Zambia rate of rural poverty if anything is worse at a reported 78% against AGRAs target of less than 50% (Wise, 2020 p23). Additionally, AGRA prefers to support those who have more than 1 hectare of land, leaving millions of small holder farmers with less than a hectare unable to receive subsidies for inputs, thus putting the professed gains of Green Revolution agriculture even further out of the reach of the most in need of improved food security. This background is important to understanding the context under which small holder farmers in Mayukwayukwa are operating, and why the claims made by those who critique the lack of progress made by the resettlers of Mayukwayukwa, as being a result of so-called "dependency syndrome", are incorrect, and in fact the reliance on inputs is an entirely reasonable response to a system that is designed to benefit agribusiness (through the ongoing need to purchase inputs) rather than farmers. And it certainly isn't working to achieve the aims of sustainable agricultural development for Zambians or for the resettlers who have become the focus of our ongoing set of knowledge exchange collaborations.

Integration as part of a sustainable solution.[SLIDE]

Many of the Angolan families living in Mayukwayukwa have grown up children who have never set foot in Angola where many of the resettlers fled as refugees in various waves of conflict-induced flight over the decades. This points to the much discussed reality that in a large number of scenarios, refugees never return to the country they or their parents fled from and that integration through things like the right to work and citizenship or in the case of Mayukwayukwa, the allocation of land to cultivate crops, are important legal and policy decisions to ensure that refugees have the opportunity to flourish rather than languish in camps for indefinite periods of time. While our knowledge exchange project is not focussed on addressing broader questions of rights and opportunities for refugees, it is an important dimension of the context given the need to more effectively respond to questions of human migration and adaptation in the face of the climate emergency.

The conventional and still dominant approach to responding to the challenges of supporting long term refugees in Zambia has been to offer refugees the opportunity to develop rural livelihoods usually at a significant distance from larger town centres and supply chains.

In Western Province, Zambia a large area of land adjoining the Mayukwayukwa refugee site has been subdivided into a resettlement site to offer permanent residence for Angolan former refugees. To encourage integration with the local community, land is allocated to both Zambian and to former refugees who then live alongside one another. [SLIDE] However, while the allocation of land is welcome, the ability for former refugees to develop independent livelihoods and maintain food security in this

remote location remains challenging. Indeed, for decades, the communities in this location have experienced numerous top-down initiatives delivered by NGOs, UNDP, UNHCR, international aid organisations like JICA, and Caritas and charities like World Vision. All of which has been supported through the Ministry of Agriculture and the Department of Resettlement - all intended to increase the climate resilience of farming and agriculture on the site and to enhance the economic independence of former refugees. However, the sites remote location, its undeveloped infrastructure in terms of access to power and roads, means that progress is slow and beyond the standardised household surveys, there is little sense in which initiatives focussed on food security have engaged more directly to identify what are the values and interests of people who live within these communities and how can their right to self-determination (and food security) be better supported through local, national and international networks. In the process of running the ESKE project and working in collaboration with the University of Zambia and the Copperbelt University, we have had the opportunity to plant a seed. An analogy used to suggest an emphasis on an attempt to take a much more grass roots long term collaborative approach to offering support and co-creation in this context (Dr Martin's Z-lab pilot project being a good example). I am acutely aware that we represent yet another set of outsiders coming in, which is why one of the things I am particularly interested in is how our position as a number of universities can be leveraged to access further funding, the development of ongoing support networks with and beyond the region, and most importantly, accessible opportunities for Mayukwayukwa's community members to be more involved in determining their own future and well-being.

Further context: the ESKE project has, like so much else, was stalled by the global pandemic. This period of hiatus has however allowed us to *usefully strategize and consider the links between*, and importantly for me at least, in terms of the man's question, *the legacy of associated projects* that various teams members are leading in both Zambia and in the African continent. Our responsibility as people with privilege and as academics in the global north to leverage whatever institutional weight we can to focus resource, education and expertise into collaborative partnerships like this one. Not as a one off, but as a constant.

So the ESKE project is building on the Z-lab workshop described above. ESKE attempts to work across sectors and integrate stakeholders with varying levels of knowledge, education and expertise, including UK and Zambian students, UK and Zambian researchers at the University of Zambia and Copperbelt University, United Nations actors - specifically UNDP, the Zambian government's Department of Resettlement and the local community members themselves. The structure of the knowledge exchange project which originally was to be an immersive international exchange of students between Zambia and the UK, has been modified to connect students, researchers and community members virtually with students' enacting their own forms of participatory action research allowing us all to consider the role each of us plays in making sense of our reality and the role we have to play in the overall mission of expanding knowledge and understanding of each other as we address shared questions of food insecurity in this location and in the UK. In Zambia, the aim has been, through the site visits carried out by the UNZA and CBU to follow up and on the activity of the Z lab project. Essentially to scale things up through the participation of Zambian students and UNZA researchers who travelled to Mayukwayukwa in March 2022, followed by the Copperbelt University students who travelled this last September (2022). Through their eyes and experience they then share their observations and hands on learning with UK students and researchers. In this way, the idea is that a range of site-specific solutions derived from locally sourced materials will be improved upon but in ways that allow community members to retain ownership as ultimately they will be responsible for the ongoing implementation and maintenance of whatever technologies prove to be of most interest and use to the community members, whether that is water harvesting for use on crops, vertical gardening to reduce water use and improve micronutrient

availability, or packaging to improve the storage and shelf life of produce. This, it is hoped, is a project design best able to achieve practical and sustainable solutions to challenges of food security and by extension, health and well-being.

Brunel university students, in turn, focussed on the food security challenges of the UK and, at the request of our partners, engaged in some permaculture training in June this year [SLIDE, SLIDE, SLIDE], something that that has had a fairly profound impact on the UK students, much more accustomed to the urban setting of Uxbridge or the greater London area. This experience provided a shared point of interest for students from all three institutions. While the scale, intensity and impact of the cost-of-living crisis we are currently experiencing in the UK is very different to that of Zambia, the situation asks us all to consider questions of food security for the most disadvantaged within our society. Exploring permaculture practices also allowed students to reconsider some of the predominant practices of 'green revolution' farming mentioned earlier that has dominated the field of agriculture in Zambia. An increased respect for indigenous understanding of land and the importance of ecosystem integrity was also notable in students' reflections. Some of which I will share here. [SLIDE] [SLIDE}

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Through these processes and activities, we attempted to create the material conditions to allow for reciprocal knowledge exchange. A sharing to be realised in spite of the distance, the technical challenges of poor internet connectivity, and the differing timetables and work circumstances of everyone involved in the project. Through viewing the specifics of a very particular set of circumstances and challenges in the UK and Zambia through the eyes of another, the idea was to in some small way, expand our collective sense of connection, community and mutual responsibility, in an age and moment seemingly characterised by division.

So while I maybe still don't have a good enough answer for the man who asked "What's in it for you?" In raising his question in this setting, I highlight the need to constantly question what we do, how we do it and who benefits, not just within the context of these projects, but more generally when considering the impacts of our choices. Whether that decision is in relation to how we try to work with others and share knowledge, or whether it is in terms of the decisions we make in a broader national and by extension global context that has impacts and ramifications for those living in the global south.