

# #3 CO-PRODUCING KNOWLEDGE

## Practising ethics guides to built environment research

Yael Padan

### When planning

1. What kind of relationships will we build between the co-producing partners, and how can we ensure everyone gains from the research?
2. Can we agree on what needs to be known, and whose knowledge counts?
3. How will we distribute the work to be done – fieldwork, analysis, interpretation, management, communication and administration?
4. How will we handle difference, problems and disagreements within our team, and ethical issues that come up?

### When conducting

5. Are our decision-making processes collaborative, open and transparent?
6. When issues arise are we able to change our modes of collaboration and research plans?
7. Are we conscious of potential inequalities within our project, open to discussing these, and finding ways of avoiding their reproduction?

### When producing & communicating

8. Are we able to collaborate and work ‘with’ one another to product outputs?
9. Have we considered authorship protocols and ensured all those involved are credited fairly?
10. Have we found ways to report back to each other about our findings in ways that are culturally and linguistically appropriate?

## Practising Ethics: Guides

These guides, curated by the [Bartlett's Ethics Commission](#) in collaboration with [KNOW \(Knowledge in Action for Urban Equality\)](#), and edited by Jane Rendell, (Director of the Bartlett Ethics Commission 2015-20), offer insights by experienced researchers into how to negotiate the ethical dilemmas that can arise during a research project. The aim is to help you practise built environment research ethically. David Roberts (Bartlett Ethics Fellow 2015-20) devised the format and structure of these guides to follow the ethical issues that arise during the development of a research process – from planning, to conducting, to communicating and producing outcomes – and Ariana Markowitz wrote some of the introductory text that runs across all guides. The guides focus on the different kinds of ethical issues you might encounter as a result of using specific processes or methods, and pay attention to the particular contexts and ways in which these methods are practised. Because when practising research, methods and context inform one another, we consider this series of guides as embedded in a mode of applied ethics called **situated** or **relational ethics**. Where you see words that are highlighted, they refer back to our definitions of key **ethical** principles and to terms contained in institutional protocols as found on [Practising Ethics](#).

1. *Making Images* (David Roberts)
2. *Asking Questions* (Yael Padan)
3. ***Co-producing Knowledge*** (Yael Padan)
4. *Staging Research* (David Roberts)
5. *Researching, Risk, and Wellbeing* (Ariana Markowitz)
6. *Researching Internationally* (Emmanuel Osuteye)

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## Guide # 3 Co-producing Knowledge by Yael Padan

*'Research in itself is a powerful intervention, even if carried out at a distance, which has traditionally benefitted the researcher, and the knowledge base of the dominant group in society.'*  
Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books, 1999), 176.

### About this guide: why and how built environment researchers co-produce knowledge

Built environment research is as much about people as it is about places: the people who use and inhabit the places you are researching, the people who engage with those places emotionally or spiritually even if they are not physically present, the people who build them, and the people who own or manage them. In addition, you the researcher are necessarily a key actor: you devise the research approach, become a participant in the place where you gather data, and you determine how to interpret that data and what to do with it. Because people are unpredictable, research can also be unpredictable, and you are likely to encounter unexpected **situations** that require you to think on your feet whilst navigating high expectations with limited time. Even the best-laid plans often go awry when they come into contact with reality and real people and you will need systems in place to support you throughout that process, minimising **harm** to those participating in your research as well as to yourself. **Ethics** concerns the kind of lives we lead, the qualities of character we seek to develop, and the **responsibilities** we have for each other and our social and ecological system. To conduct research **ethically**, it is important to consider the **benefits, risks, and harms** to all connected with and affected by it.

## What is knowledge co-production?

Various definitions for knowledge co-production exist in the literature, and some of them can be found in the list of resources at the end of this guide. Most definitions view knowledge co-production as a method of collaborating with partners to jointly define research questions and generate new knowledge, projects or products. The process of collaborating with different stakeholders yields knowledge that is grounded in a relevant social, cultural, and political context. Co-production attempts to combine and include various ways that different stakeholders use in order to approach, understand and deal with the research questions. Therefore, interactions and communication between partners co-producing knowledge stand at the core of this method. The **relational** aspects of co-production are crucial for allowing the emergence of a specific kind of knowledge, that is not only integrated but can also be transformational, acting as a powerful agent of change and affecting different stakeholders.<sup>1</sup> In this way, knowledge co-production enables social learning that can challenge existing assumptions which prevent transformative change.<sup>2</sup> The societal effects of knowledge co-production therefore include not only gaining new knowledge, but also other possible impacts such as encouraging network building, increasing public involvement, developing a wider understanding of different perspectives, and enhancing decision-making capacities.<sup>3</sup>

Co-produced research can range from a small-scale local collaboration to an international cross-cultural, multi-sited project involving multiple partners across disciplines. You may intend your research to be co-produced with research participants, colleague academic partners, practitioners, decision makers, or other stakeholders. Your co-produced research may take place in your own geographic, socio-cultural and political settings, or in a different context – in a geographical area you are unfamiliar with. Choosing your partners and research locations means recognising different learning styles, different ways of interaction with the social and physical environment, and different entry points for influencing change.<sup>4</sup> These issues have important **ethical** implications that will affect your research and are crucial for its success, and the ways in which you might measure success.

Knowledge co-production is closely related to, and often forms part of, other collaborative approaches that emphasise participation. Participatory action research (PAR) is one example. This process is driven by participants, which are involved in devising all stages of the research, to collectively deliver action, change or transformation regarding issues that are jointly selected to be researched.<sup>5</sup> Other participatory approaches include co-design and co-creation, which focus on developing research programmes, projects and products collaboratively.<sup>6</sup> Co-designing in creative disciplines can employ ‘caring design’ by combining innovation and problem solving through participatory processes that are relational and responsive.<sup>7</sup> Many of these approaches include practice-led research, a type of research found in disciplines and professions such as art, design and architecture, where the research is located in the creative process itself. Yet while some kinds of practice-led, based or related research involve collaborative and/or participatory elements, others focus on sole-authorship.<sup>8</sup> Projects that aim to produce beneficial outcomes while sharing power and resources, may require sharing **ethical** principles and practices to guide collective action.<sup>9</sup>

## The ethics of knowledge co-production

Because different partners collaborate to co-produce knowledge, paying special attention to interpersonal interactions is an important part of the process. This type of collaboration is based on **recognition** and **respect** for the knowledge and value systems of the various stakeholders.<sup>10</sup> Differences can lead to tensions, for example around issues of power relations between partners, balancing different expectations and interests, allocation of time and resources, and ways of working through disagreements, misunderstandings or conflicts. While institutional ethics principles and procedures are important for thinking about research ethics, they offer no tools for recognising or dealing with such issues. This guide encourages you and your partners to reflect about your **relational** responsibilities, and apply an **ethics of care** in order to open up possibilities for positive interaction and transformation, at personal and the institutional levels.

## How to use this guide

These guides to *Practising Ethics* define appropriate ways to engage **ethically** in research. *Co-producing Knowledge* aims to assist you in recognising the **ethical** dilemmas which arise from co-producing knowledge and to address and **reflect** on these with confidence. It is designed to be a point of reference at any stage of your research – from planning your project, to conducting activities in the field, to communicating what you have learned through the production of particular research outputs.

*Co-producing Knowledge* contains **principles, questions, guidelines** and **resources**. The **principles** in the next section inform best practice. These are not just regulatory hurdles for you to jump through at the beginning stages of your research but concepts that ground **ethical** inquiry throughout. They help you develop and refine an approach that it is **sensitive** to the physical and emotional challenges that may arise in the research process, enabling you to be a more effective researcher. The series of guiding **questions** act as prompts for you to **reflect** on the potential **ethical** considerations which emerge throughout a project, before, during, and after you conduct your research. The **guidelines** expand on the questions, illuminate the different **ethical** concerns they raise, and recommend actions which embody these principles. The **resources** section provides additional information.

These guides are not exhaustive and cannot address all the possible **situations** you will face, particularly for research on **sensitive** topics or in places experiencing violence or instability. But learning from the experiences of others, will help you gain the ability to **reflect** on what you encounter, and to make informed judgements about the best way to practise your research **ethically**. Insightful and imaginative research encompasses a range of sites, cultural contexts, and people and there will always be a need for flexibility and **care**.

## Questions

### **When planning: *Building relationships and planning for the unexpected***

1. What kind of relationships will we build between the co-producing partners, and how can we ensure everyone gains from the research?
2. Can we agree on what needs to be known, and whose knowledge counts?
3. How will we distribute the work to be done – fieldwork, analysis, interpretation, management, communication and administration?
4. How will we handle difference, problems and disagreements within our team, and ethical issues that come up?

### **When conducting: *Reflecting on the 'how' of working together***

5. Are our decision-making processes collaborative, open and transparent?
6. When issues arise are we able to change our modes of collaboration and research plans?
7. Are we conscious of potential inequalities within our project, open to discussing these, and finding ways of avoiding their reproduction?

### **When producing and communicating: *Emphasising 'with' rather than 'about'***

8. Are we able to collaborate and work 'with' one another to product outputs?
9. Have we considered authorship protocols and ensured all those involved are credited fairly?
10. Have we found ways to report back to each other about our findings in ways that are culturally and linguistically appropriate?

## Principles

The people, places, and research methods you use and the contexts in which they are practised will each raise their own **ethical** considerations related to a common set of principles that encourage **ethical** conduct and promote interaction based on good faith and mutual **respect**.

**Benefit not harm:** Your research should have a **benefit** to society and any **risks** that participants could face must be minimised, balanced against the potential **benefit** to the overall community, and clearly explained to participants before they give their **consent**.

**Informed consent:** You need to inform your participants about the study and what is being asked of them, including any potential **risks** or **benefits**, in order for them to make an informed and voluntary decision about whether or not to participate in the research.

**Confidentiality:** You need to inform participants of the extent to which **confidentiality** can be assured and **respect** their right to remain **anonymous** in dissemination and display.



## Guidelines

The guide uses questions as a key way of thinking through the potential pitfalls of co-production. There are **'ethical'** questions, noted on the cover page, and then more practical questions which are listed below as part of each of the three research stages. Some of the questions listed below may seem procedural, but it is worth thinking about them in terms of the potential ethical issues which the answers to them could raise. This is because technicalities which may seem to be merely practical modes of working, could be viewed by other research partners as limiting, intervening or challenging in some way. This section aims to facilitate reflections on how, in each stage of the research, practical issues (often considered 'normal', 'factual' or 'procedural') can lead to possible ethical issues, and to indicate how ethical work is thus a questioning form of practice in many ways.

## Guideline 1 When planning research: *Building relationships and planning for the unexpected*

The questions in this section build on those listed above, and go into more details in order to prompt you to consider the impact of practical decisions that are taken in early stages of planning the research. Some of them overlap, and most should be considered simultaneously rather than read as a linear process. They are designed to encourage thinking collectively, in advance, about possible ethical issues and points of contention, and deciding with your partners how they might be addressed.

Thinking through these questions is useful in identifying, minimising or avoiding problems that are often inadvertently built into the design of co-produced research projects. Estelle Barrett's concept of 'pre-ethics' is very helpful in setting out this process. She proposes 'pre-ethics' as a discussion between researchers and research participants, to define and agree upon the ethics of the planned research. In this process, institutional consent forms are also negotiated prior to the research.<sup>11</sup> In addition to generating relevant key ethics principles at this early stage in the project, it is also very useful to get training in the facilitation of meetings, and to come up with ground rules about conducting them – regarding language, organising residents' assemblies, etc.<sup>12</sup>

It is important to take time together with all partners when designing the research, in order to understand each other's ways of working; to define common goals and purposes; to recognise the knowledge and value systems of each partner; and to agree about the details of working together.<sup>13</sup> It is also helpful to collectively decide in advance about ways to deal with and solve unanticipated ethics issues and problems as they come up, and to include this in the research plan. Decisions will of course vary depending on the scope and characteristics of the research, and you may find the questions in this section will not all be relevant, but some of them may be useful in thinking how to incorporate **ethical** considerations into the joint planning of your research.

1. *Identifying research partners and building relationships between them:*  
 Who are the stakeholders involved in our research?  
 Who are our co-producing partners?  
 What titles will the different partners have?  
 What different roles will they play, and what activities will they carry out?  
 Are all co-producers fully aware of their roles, and their relations to each other and the activities they are being asked to perform at the start of the project?  
 Will co-producers decide these aspects of the project for themselves? In relation to one-another? Or if not, who will make these decisions and how will they be communicated to the research group?
2. *Designing the research questions:*  
 Why are we co-producing knowledge? What are our shared goals?  
 What kind of knowledge will be produced?  
 How can we ensure that the respective knowledges of all partners will be recognised and valued?  
 Who will benefit from our research?  
 How do we address the different motivations for co-production, so that all partners can benefit from this research?  
 What kind of impacts do we want to achieve?
3. *Choosing methodologies:*  
 Which research methods will be used?  
 Who will carry them out, e.g. conduct the fieldwork / interviews / focus group facilitation / take photographs / make films / produce installations / stage exhibitions / draft policy?  
 For interviews / focus groups, how will the questions be co-designed and framed?  
  
 Who will analyse and interpret the data / findings? Who will make creative, conceptual, practical and technical decisions re the design of the installations / exhibitions, and who will make decisions regarding this division of labour?
4. *Co-producing knowledge:*  
 How will we work together, divide the types of work, and share the workload?  
 How, and how often, do we intend to communicate?  
 How will we comment and feedback on each other's work?  
 How do we intend to identify and address potential misinterpretations that may arise from difference in culture, language etc.?
5. *Disseminating knowledge:*  
 What types of outputs will benefit various stakeholders?  
 How will we produce our outputs?  
 Who will our work be shared with?  
 Have we considered authorship protocols, how they vary across discipline, and ensured that all those who have been involved get credited in the most appropriate and fair way?  
 Who will present our work?
6. *Addressing problems: Research ethics*  
 In addition to completing institutional ethics requirements, are we going to design our own ethics protocol or guidance for our research?  
 How will we ensure that everyone's voice will be heard?  
 How will we address issues such as ethical dilemmas, interpersonal difficulties and complaints that may come up during the research?

## Guideline 2 When conducting research: *Reflecting on the 'how' of working together*

Even projects that are well designed in advance may run into difficulties as the work is carried out. In such cases, it is important to take time to consider with the partners what went wrong, why, and what can be done to redress this. Even if the project seems to be running smoothly, there may be some unvoiced complaints or hard feelings. Regular monitoring of the research should therefore consider the presence of restrictive hierarchies or power disparities within the team, that may prevent the voicing of problems or critique. Further, specific feedback meetings might be required in order to examine **relational** aspects and team dynamics and find out whether team members think there are problematic attitudes at work, such as competition, ethnocentrism or paternalism.<sup>14</sup>

It is also important to regularly observe whether all partners feel that their learning styles, values and modes of interaction with the social and physical environment are being recognised and respected; and inquire whether all partners feel that they are gaining something out of working together.<sup>15</sup> In addition, as the research unfolds, it is vital to take time to regularly discuss and critically consider the implications of the research methods, and the ways in which they inform the construction and representation of meaning.<sup>16</sup> Disagreements and concerns often arise in co-production work, and addressing them may require flexibility to make changes and adjustments to the initial research plan. Finally, even dealing with ethics issues could be prone to re-embedding colonial ideas about **relationship**, **respect**, and **responsibility**.<sup>17</sup> The following questions do not repeat but expand on those listed in above, to prompt more detailed thinking about issues that are likely to come up during the research.

1. Are we following our agreed modes of collaborating?
2. Are we making sure that all partners feel valued and respected?
3. How are we addressing emerging concerns or problems? Can we make necessary adjustments and decisions together, in an open and transparent way?
4. Do all partners have opportunities to express any discontents or complaints as they come up? Are they being listened to? What is being done about these discontents?
5. Are we evaluating the effectiveness of our research methods, and examining whether they are helpful in the process of our collective meaning making?
6. Are we facing any difficulties, problems or disagreements caused by working distantly or in dispersed locations?
7. Are we paying attention to problems that may be caused by differences in language and culture?



## Guideline 3 When producing and communicating research outputs: *Emphasising 'with' rather than 'about'*

As discussed above, co-produced research differs from research that is conducted individually, in that the process of collecting data, analysing it and disseminating it, is performed by multiple stakeholders. Towards the end of the research, as attention shifts towards the production of outputs, it is important to consider issues such as how to ensure that you are writing 'with' rather than 'about' your research partners; that you are reporting back to research participants, and taking care to do this in culturally appropriate ways and in relevant language.<sup>18</sup> It is also vital that you make sure the outcomes will be beneficial to different types of stakeholders; and that publication and dissemination of the data will not introduce any risks to the research participants. Although reflections in this part of the guide concern the final stages of your project, the prompts in this section are written in the present tense, meaning that rather than looking back, they are designed to encourage the resolution of issues relating to the process of co-producing outputs, their presentation and dissemination while there is still time to take action upon them.

As noted, co-produced research places an emphasis on collaboration and relationship-building between different partners and stakeholders. These relationships will not necessarily terminate as the research timeframe is over. Therefore, before the research ends, you will need to collectively consider whether and how to continue the relationships between stakeholders, and how to benefit from relationships of trust built over time for future collaborations and co-production. In addition, you may find that drawing conclusions and sharing learning about the co-production process itself could inform other research projects and future co-produced research.<sup>19</sup>

1. Are we producing outputs which are relevant to all stakeholders? Do the various stakeholders feel that they have benefitted from the research?
2. Are we taking necessary precautions, if required, to protect our research participants when we publish certain data?
3. Are we documenting and sharing project learning?
4. Are we going to continue the relationships between stakeholders? Will the relationships cultivated develop into a longer commitment? Can we continue to build a knowledge-sharing process?
5. What have we learnt about the process of knowledge co-production itself?

## Resources

- Banks, Sarah, and Paul Manners. 'Community-Based Participatory Research: A Guide to Ethical Principles and Practice.' Durham University Centre for Social Justice and Community Action, and the National Co-ordinating Centre for Public Engagement, 2012.
- Barrett, Estelle, and Barbara Bolt, eds. *Practice as Research: Context, Method, Knowledge*. London: IB Tauris, 2007.
- Barrett Estelle. 'Relationality and Ethical Know-How in Indigenous Research.' In *IDare Creative Arts Research and Ethics of Innovation Conference Proceedings*, 1–14, 2016.
- Carmona, Matthew, ed. *Explorations in Urban Design: An Urban Design Research Primer*. London: Ashgate, 2013.
- Fraser, Murray, ed. *Architectural Design Research*. London: Ashgate, 2013.
- Genat, Bill. '[Building Emergent Situated Knowledges in Participatory Action Research](#).' *Action Research* 7, no. 1 (2009): 101–15.
- Hamington, Maurice. '[Integrating Care Ethics and Design Thinking](#).' *Journal of Business Ethics* 155, no. 1 (2019): 91–103.
- Howitt, Richie, and Stan Stevens. 'Cross-Cultural Research: Ethics, Methods, and Relationships.' In *Qualitative Research Methods in Human Geography*, edited by Iain Hay, 2nd Editio., 30–50. Oxford University Press, 2008.
- Just Space [Research Protocol](#), 2018.
- Koirala-Azad, Shabnam, and Emma Fuentes. '[Introduction: Activist Scholarship — Possibilities and Constraints of Participatory Action Research](#).' *Social Justice* 36, no. 4 (118) (2010): 1–5.
- Macleod, Katy, and Lyn Holdridge, eds. *Thinking through Art: Reflections on Art as Research*. London and New York: Routledge, 2005.
- Moser, Susanne C. '[Can Science on Transformation Transform Science? Lessons from Co-Design](#).' *Current Opinion in Environmental Sustainability* 20 (2016): 106–15.
- Osuteye, Emmanuel, Catalina Ortiz, Barbara Lipitiez, Vanesa Castán Broto, Cassidy Johnson, and Wilbard Kombe. 'Knowledge Co-Production for Urban Equality.' *KNOW Working Paper Series* 1, no. 1 (2019).
- Page, Glenn G., Russell M. Wise, Laura Lindenfeld, Peter Moug, Anthony Hodgson, Carina Wyborn, and Ioan Fazey. '[Co-Designing Transformation Research: Lessons Learned from Research on Deliberate Practices for Transformation](#).' *Current Opinion in Environmental Sustainability* 20, no. October (2016): 86–92.
- Rendell, Jane, Jonathan Hill, Murray Fraser and Mark Dorrian, eds. *Critical Architecture*. London: Routledge, 2007.
- Scholz, Roland W., and Gerald Steiner. '[The Real Type and Ideal Type of Transdisciplinary Processes: Part I—Theoretical Foundations](#).' *Sustainability Science* 10, no. 4 (2015): 527–44.
- Schuttenberg, H. Z., and Heidi K. Guth. '[Seeking Our Shared Wisdom: A Framework for Understanding Knowledge Coproduction and Coproductive Capacities](#).' *Ecology and Society* 20, no. 1 (2015).
- Smith, Linda Tuhiwai. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books, 1999.
- Smith, Marquard, and Michael Ann Holly, eds. *What is Research in the Visual Arts? Obsession, Archive, and Encounter*. Clark Art Institute/Yale University Press, 2008.
- Spataro, David. '[Reframing Structure and Agency in Participatory Action Research PAR as a Politics of Scale](#).' *International Review of Qualitative Research* 3, no. 4 (2011): 455–75.

Visman, Emma, Camilla Audia, Frances Crowley, Mark Pelling, Amaelle Seigneret, and Talar Bogosyan. '[Underpinning Principles and Ways of Working That Enable Co-Production: Reviewing the Role of Research.](#)' *BRACED Learning Papers*, no. 7 (2018).

Visman, Emma, Mark Pelling, Camilla Audia, Sophie Rigg, Frances Crowley, and Tyler Ferdinand. '[Learning to Support Co-Production Learning between at-Risk Groups , Humanitarian and Development Practitioners, Policymakers, Scientists and Academics.](#)' *BRACED Learning Papers*, no. 3 (2016).

Wakefield, Sarah, and Madeline Whetung. '[Colonial Conventions.](#)' In *Indigenous and Decolonizing Studies in Education*, edited by Linda Tuhiwai Smith, Eve Tuck, and K. Wayne Yang, 146–58. New York: Routledge, 2015.

Walter, Alexander, Sebastian Helgenberger, Arnim Wiek, and Roland Scholz '[Measuring Societal Effects of Transdisciplinary Research Projects: Design and Application of an Evaluation Method.](#)' *Evaluation and Program Planning* 30, no. 4 (2007): 325–38.

## Bio

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## Endnotes

- 1 H. Z. Schuttenberg and Heidi K. Guth, 'Seeking Our Shared Wisdom: A Framework for Understanding Knowledge Coproduction and Coproductive Capacities,' *Ecology and Society* 20, no. 1 (2015): 14; Susanne C. Moser, 'Can Science on Transformation Transform Science? Lessons from Co-Design,' *Current Opinion in Environmental Sustainability* 20 (2016): 107.
- 2 Emmanuel Osuteye et al., 'Knowledge Co-Production for Urban Equality,' *KNOW Working Paper Series* 1, no. 1 (2019): 11.
- 3 Alexander Walter et al., 'Measuring Societal Effects of Transdisciplinary Research Projects: Design and Application of an Evaluation Method,' *Evaluation and Program Planning* 30, no. 4 (2007): 332–33.
- 4 Osuteye et al., 'Knowledge Co-Production for Urban Equality,' 9.
- 5 See for example: Shabnam Koirala-Azad and Emma Fuentes, 'Introduction: Activist Scholarship — Possibilities and Constraints of Participatory Action Research,' *Social Justice* 36, no. 4 (118) (2010): 1–5, <https://doi.org/10.2307/29768557>; David Spataro, 'Reframing Structure and Agency in Participatory Action Research PAR as a Politics of Scale,' *International Review of Qualitative Research* 3, no. 4 (2011): 455–75, <http://www.jstor.org/stable/10.1525/irqr.2011.3.4.455>; Bill Genat, 'Building Emergent Situated Knowledges in Participatory Action Research,' *Action Research* 7, no. 1 (2009): 101–15, <https://doi.org/10.1177/1476750308099600>.
- 6 Moser, 'Can Science on Transformation Transform Science?'; Roland W. Scholz and Gerald Steiner, 'The Real Type and Ideal Type of Transdisciplinary Processes: Part I—Theoretical Foundations,' *Sustainability Science* 10, no. 4 (2015): 527–44, <https://doi.org/10.1007/s11625-015-0326-4>; Glenn G. Page et al., 'Co-Designing Transformation Research: Lessons Learned from Research on Deliberate Practices for Transformation,' *Current Opinion in Environmental Sustainability* 20, no. October (2016): 86–92, <https://doi.org/10.1016/j.cosust.2016.09.001>.
- 7 Maurice Hamington, 'Integrating Care Ethics and Design Thinking,' *Journal of Business Ethics* 155, no. 1 (2019): 91–103, <https://doi.org/10.1007/s10551-017-3522-6>.
- 8 See for example Katy Macleod, and Lyn Holdridge, eds, *Thinking through Art: Reflections on Art as Research* (London and New York: Routledge, 2005); Estelle Barrett and Barbara Bolt, eds, *Practice as Research: Context, Method, Knowledge* (London: IB Tauris, 2007); Jane Rendell, Jonathan Hill, Murray Fraser and Mark Dorrian, eds, *Critical Architecture* (London: Routledge, 2007); Marquard Smith and Michael Ann Holly, eds, *What is Research in the Visual Arts? Obsession, Archive, and Encounter* (Clark Art Institute/Yale University Press, 2008); Matthew Carmona, ed., *Explorations in Urban Design: An Urban Design Research Primer* (London: Ashgate, 2013); and Murray Fraser, ed., *Architectural Design Research* (London: Ashgate, 2013).
- 9 See for example the ethical guidance offered in Sarah Banks and Paul Manners, 'Community-Based Participatory Research: A Guide to Ethical Principles and Practice' (Durham University Centre for Social Justice and Community Action, and the National Co-ordinating Centre for Public Engagement, 2012).
- 10 Emma Visman et al., 'Learning to Support Co-Production Learning between at-risk groups, humanitarian and development practitioners, policymakers, scientists and academics,' BRACED Learning Papers, no. 3 (2016): 2.
- 11 Barrett Estelle, 'Relationality and Ethical Know-How in Indigenous Research,' in *IDare Creative Arts Research and Ethics of Innovation Conference Proceedings*, 2016, 1–14.
- 12 See for example the protocol by Just Space, a network of London community groups (Just Space Research Protocol, 2018, <https://justspacelondon.files.wordpress.com/2018/06/research-protocol-2018.pdf>). Just Space was formed in order to make grassroots voices heard during the formulation of London's major planning strategy. The network has a research protocol which was written based on interactions between researchers and local action groups, in order to set some standards for ethical participation and collaborations between community /activist groups and university staff and students (<https://justspace.org.uk/about/>).
- 13 Osuteye et al., 'Knowledge Co-Production for Urban Equality,' 9.
- 14 Richie Howitt and Stan Stevens, 'Cross-Cultural Research: Ethics, Methods, and Relationships,' in *Qualitative Research Methods in Human Geography*, ed. Iain Hay, 2nd Edition (Oxford University Press, 2008), 35; Schuttenberg and Guth, 'Seeking Our Shared Wisdom: A Framework for Understanding Knowledge Coproduction and Coproductive Capacities.'
- 15 Osuteye et al., 'Knowledge Co-Production for Urban Equality,' 9.
- 16 Howitt and Stevens, 'Cross-Cultural Research,' 30; Smith, *Decolonizing Methodologies*, 16.
- 17 Sarah Wakefield and Madeline Whetung, 'Colonial Conventions,' in *Indigenous and Decolonizing Studies in Education*, ed. Linda Tuhiwai Smith, Eve Tuck, and K. Wayne Yang (New York: Routledge, 2015), 149.
- 18 Smith, *Decolonizing Methodologies*, 15.
- 19 Emma Visman et al., 'Underpinning Principles and Ways of Working That Enable Co-Production: Reviewing the Role of Research,' BRACED Learning Papers, no. 7 (2018), <http://www.braced.org/resources/i/ways-of-working-enable-coproduction>.