

## Literaturverzeichnis

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- Achiam, M., Dillon, J., & Glackin, M. (Hg.). (2021a). *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences*. Cham: Springer International Publishing, <https://doi.org/10.1007/978-3-030-74266-9>.
- Achiam, M., Glackin, M., & Dillon, J. (2021b). Wicked Problems and Out-of-School Science Education: Implications for Practice and Research. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 229–237). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_12](https://doi.org/10.1007/978-3-030-74266-9_12).
- Achiam, M., & Sølberg, J. (2017). Nine meta-functions for science museums and science centres. *Museum Management and Curatorship*, 32(2), 123–143, <https://doi.org/10.1080/09647775.2016.1266282>.
- Adomßent, M., & Godemann, J. (2011). Sustainability Communication: An Integrative Approach. In J. Godemann, & G. Michelsen (Hg.), *Sustainability Communication. Interdisciplinary Perspectives and Theoretical Foundations* (S. 27–37). Dordrecht/Heidelberg/London/New York: Springer, [https://doi.org/10.1007/978-94-007-1697-1\\_3](https://doi.org/10.1007/978-94-007-1697-1_3).
- Alberti, S. J. M. M. (2008). Constructing nature behind the glass. *Museum and Society*, 6(2), 73–97, <https://doi.org/10.29311/mas.v6i2.116>.
- Allum, N., Sturgis, P., Tabourazi, D., & Brunton-Smith, I. (2008). Science knowledge and attitudes across cultures: a meta-analysis. *Public Understanding of Science*, 17(1), 35–54, <https://doi.org/10.1177/0963662506070159>.
- Anderson, B. R. (2006 [1983]). *Imagined Communities. Reflections on the Origin and Spread of Nationalism* (überarb. Aufl.). London/New York: Verso.
- Anderson, D., Storksdieck, M., & Spock, M. (2007). The Long-Term Impacts of Museum Experiences. In J. H. Falk, L. D. Dierking, & S. Foutz (Hg.),

- In Principle, in Practice: New Perspectives on Museums as Learning Institutions* (S. 197–215). Walnut Creek: AltaMira Press.
- Anderson, G. (Hg.). (2004). *Reinventing the Museum: Historical and Contemporary Perspectives on the Paradigm Shift*. Walnut Creek: AltaMira Press.
- Arengo, F., Porzecanski, A. L., Blair, M. E., Amato, G., Filardi, C., & Sterling, E. J. (2018). The essential role of museums in biodiversity conservation. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 82–100). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-6>.
- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Planning Association*, 35(4), 216–224, <https://doi.org/10.1080/O1944366908977225>.
- Backhouse, M., Lehmann, R., Lorenzen, K., Lühmann, M., Puder, J., Rodríguez, F., et al. (Hg.). (2021). *Bioeconomy and Global Inequalities. Socio-Ecological Perspectives on Biomass Sourcing and Production*. Cham: Palgrave Macmillan, <https://doi.org/10.1007/978-3-030-68944-5>.
- Backhouse, M., Lorenzen, K., Lühmann, M., Puder, J., Rodríguez, F., & Tittor, A. (2017). *Bioökonomie-Strategien im Vergleich. Gemeinsamkeiten, Widersprüche und Leerstellen. Working Paper* (Bd. 1). Jena: Friedrich-Schiller-Universität Jena.
- Balint, P. J., Stewart, R. E., Desai, A., & Walters, L. C. (2011). *Wicked Environmental Problems: Managing Uncertainty and Conflict*. Washington D.C./Covelo/London: Island Press, <https://doi.org/10.5822/978-1-61091-047-7>.
- Bandelli, A., & Konijn, E. A. (2013). Science Centers and Public Participation: Methods, Strategies, and Barriers. *Science Communication*, 35(4), 419–448, <https://doi.org/10.1177/1075547012458910>.
- Bauer, A., & Bogner, A. (2020). Let's (not) talk about synthetic biology: Framing an emerging technology in public and stakeholder dialogues. *Public Understanding of Science*, 29(5), 492–507, <https://doi.org/10.1177/0963662520907255>.
- Bauer, M. W. (2017). Kritische Beobachtungen zur Geschichte der Wissenschaftskommunikation. In H. Bonfadelli, B. Fähnrich, C. Luthje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 17–40). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_2](https://doi.org/10.1007/978-3-658-12898-2_2).
- Bauer, M. W., Allum, N., & Miller, S. (2007). What can we learn from 25 years of PUS survey research? Liberating and expanding the agenda. *Public Understanding of Science*, 16(1), 79–95, <https://doi.org/10.1177/0963662506071287>.

- Baur, J. (2008). Museum 2.0 – Notizen zum Museum als Plattform gesellschaftlichen Wandels. *Museumskunde*, 73(2), 7–12.
- Beck, S., Borie, M., Chilvers, J., Esguerra, A., Heubach, K., Hulme, M., et al. (2014). Towards a Reflexive Turn in the Governance of Global Environmental Expertise. The Cases of the IPCC and the IPBES. *GAIA – Ecological Perspectives for Science and Society*, 23(2), 80–87, <https://doi.org/10.14512/gaia.23.2.4>.
- Beck, U. (1986). *Risikogesellschaft. Auf dem Weg in eine andere Moderne*. Frankfurt a.M.: Suhrkamp.
- Bell, L. (2008). Engaging the Public in Technology Policy. A New Role for Science Museums. *Science Communication*, 29(3), 386–398, <https://doi.org/10.1177/1075547007311971>.
- Bell, P., Lewenstein, B. V., Shouse, A. W., & Feder, M. A. (Hg.). (2009). *Learning science in informal environments. People, places, and pursuits*. Washington D.C.: The National Academies Press.
- Bennett, T. (1995). *The Birth of the Museum. History, Theory, Politics*. London/New York: Taylor and Francis.
- Bentz, J., O'Brien, K., & Scoville-Simonds, M. (2022). Beyond »blah blah blah«: exploring the »how« of transformation. *Sustainability Science*, 17(2), 497–506, <https://doi.org/10.1007/s11625-022-01123-0>.
- Bergdahl, E., & Houlitz, A. (2016). Museum awakenings: responses to environmental change at the Swedish Museum of Natural History, 1965–2005. In J. Newell, L. Robin, & K. Wehner (Hg.), *Curating the future. Museums, communities and climate change* (S. 217–229). London/New York: Routledge.
- Bertens, L., & Wilson, A. M. (2022). Wonder, Empire, Science: The Quagga and Other Extinctions on Display at Naturalis. *Museum and Society*, 20(1), 33–49, <https://doi.org/10.29311/mas.v20i1.3795>.
- Birch, K., Levidow, L., & Papaioannou, T. (2010). Sustainable capital? The Neoliberalization of Nature and Knowledge in the European »Knowledge-based Bio-economy«. *Sustainability*, 2, 2898–2918, <https://doi.org/10.3390/su2092898>.
- Black, G. (2005). *The Engaging Museum: Developing Museums for Visitor Involvement*. London/New York: Routledge.
- Block, T., Van Poeck, K., & Östman, L. (2019). Tackling wicked problems in teaching and learning. Sustainability issues as knowledge, ethical and political challenges. In K. Van Poeck, L. Östman, & J. Öhman (Hg.), *Sustainable Development Teaching. Ethical and Political Challenges* (S. 15–27). London: Routledge, <https://doi.org/10.4324/9781351124348>.

- Blond, K. (2018). Imagining the future of natural history museum exhibitions. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 103–118). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-7>.
- Blumer, H. (1954). What is wrong with social theory? *American Sociological Review*, 19(1), 3–10, <https://doi.org/10.2307/2088165>.
- Blythe, J., Silver, J., Evans, L., Armitage, D., Bennett, N. J., Moore, M.-L., et al. (2018). The Dark Side of Transformation: Latent Risks in Contemporary Sustainability Discourse. *Antipode*, 50(5), 1206–1223, <https://doi.org/10.1111/anti.12405>.
- BMBF Bundesministerium für Bildung und Forschung (2010). *Nationale Forschungsstrategie BioÖkonomie 2030. Unser Weg zu einer bio-basierten Wirtschaft*. Berlin: Bundesministerium für Bildung und Forschung, Referat Bioökonomie.
- BMBF Bundesministerium für Bildung und Forschung (2022). *Bioökonomie – Biogene Ressourcen und biologisches Wissen für eine nachhaltige Wirtschaft*. [https://www.bmbf.de/bmbf/de/forschung/energiewende-und-nachhaltiges-wirtschaften/biooekonomie/biooekonomie\\_node.html](https://www.bmbf.de/bmbf/de/forschung/energiewende-und-nachhaltiges-wirtschaften/biooekonomie/biooekonomie_node.html). Zugegriffen: 10.07.2023.
- BMBF Bundesministerium für Bildung und Forschung, & BMEL Bundesministerium für Ernährung und Landwirtschaft (2020). *Nationale Bioökonomiestrategie*. Berlin: Bundesministerium für Bildung und Forschung, Bundesministerium für Ernährung und Landwirtschaft.
- BMEL Bundesministerium für Ernährung und Landwirtschaft (2014). *Nationale Politikstrategie Bioökonomie. Nachwachsende Ressourcen und biotechnologische Verfahren als Basis für Ernährung, Industrie und Energie*. Berlin: Bundesministerium für Ernährung und Landwirtschaft, Referat Biobasierte Wirtschaft, Nachhaltige Land- und Forstwirtschaft.
- Bogner, A. (2012a). Wissenschaft und Öffentlichkeit: Von Information zu Partizipation. In S. Maasen, M. Kaiser, M. Reinhart, & B. Sutter (Hg.), *Handbuch Wissenschaftssoziologie* (S. 380–392). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-531-18918-5\\_30](https://doi.org/10.1007/978-3-531-18918-5_30).
- Bogner, A. (2012b). The paradox of participation experiments. *Science, Technology, & Human Values*, 37(5), 506–527, <https://doi.org/10.1177/0162243911430398>.
- Bogner, A., & Menz, W. (2002). Das theoriegenerierende Experteninterview. Erkenntnisinteresse, Wissensformen, Interaktion. In A. Bogner, B. Litig, & W. Menz (Hg.), *Das Experteninterview. Theorie, Methode, Anwendung*

- (S. 33–70). Wiesbaden: VS Verlag für Sozialwissenschaften, <https://doi.org/10.1007/978-3-322-93270-9>.
- Bogner, A., & Torgersen, H. (Hg.). (2005). *Wozu Experten? Ambivalenzen der Beziehung von Wissenschaft und Politik*. Wiesbaden: VS Verlag für Sozialwissenschaften, <https://doi.org/10.1007/978-3-322-80692-5>.
- Bonfadelli, H., Fähnrich, B., Lühje, C., Milde, J., Rhomberg, M., & Schäfer, M. S. (2017). Einleitung. In H. Bonfadelli, B. Fähnrich, C. Lühje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 3–14). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_1](https://doi.org/10.1007/978-3-658-12898-2_1).
- Bonn, A., Brink, W., Hecker, S., Herrmann, T. M., Liedtke, C., Premke-Kraus, M., et al. (2021). *Weißbuch Citizen-Science-Strategie 2030 für Deutschland*. Leipzig/Berlin: Helmholtz-Gemeinschaft, Leibniz-Gemeinschaft, Universitäten und außeruniversitäre Einrichtungen, <https://doi.org/10.31235/osf.io/ew4uk>.
- Bonn, A., Richter, A., Vohland, K., Pettibone, L., Brandt, M., Feldmann, R., et al. (2016). *Grünbuch Citizen Science Strategie 2020 für Deutschland*. Leipzig/Berlin: Helmholtz-Zentrum für Umweltforschung, Deutsches Zentrum für integrative Biodiversitätsforschung Halle-Jena-Leipzig, Museum für Naturkunde Berlin, Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Berlin-Brandenburgisches Institut für Biodiversitätsforschung.
- Bonney, R., Ballard, H., Jordan, R., McCallie, E., Phillips, T., Shirk, J., et al. (2009). *Public Participation in Scientific Research: Defining the Field and Assessing Its Potential for Informal Science Education. A CAISE Inquiry Group Report*. Washington D.C.: Center for Advancement of Informal Science Education.
- Bormann, I., Singer-Brodowski, M., Taigel, J., Wanner, M., Schmitt, M., & Blum, J. (2022). *Transformatives Lernen im Kontext sozial-ökologischer Transformationsprozesse. Impulse, Erkenntnisse und Empfehlungen für Bildung für nachhaltige Entwicklung aus dem ReFoPlan-Vorhaben TrafoBNE. Texte* (Bd. 55). Dessau-Roßlau: Umweltbundesamt.
- Breuer, F., Muckel, P., & Dieris, B. (2018). *Reflexive Grounded Theory. Eine Einführung für die Forschungspraxis* (3. vollst. überarb. u. erw. Aufl.). Wiesbaden: Springer Fachmedien, <https://doi.org/10.1007/978-3-658-15421-9>.
- Brinkmann, C., Bergmann, M., Huang-Lachmann, J.-T., Rödder, S., & Schuck-Zöllner, S. (2015). *Zur Integration von Wissenschaft und Praxis als Forschungsmodus. Ein Literaturüberblick. CSC Report*. Hamburg: Climate Service Center.

- BritainThinks (2013). *Public perceptions of – and attitudes to – the purposes of museums in society. A report prepared by BritainThinks for Museums Association*. London: Museums Association.
- Brossard, D., & Lewenstein, B. V. (2010). A Critical Appraisal of Models of Public Understanding of Science. Using Practice to Inform Theory. In L. Kahlor, & P. A. Stout (Hg.), *Communicating Science: New Agendas in Communication* (S. 11–39). New York/Oxon: Routledge.
- Brüggemann, M., Lörcher, I., & Walter, S. (2020). Post-normal science communication: exploring the blurring boundaries of science and journalism. *Journal of Science Communication*, 19(3), A02, <https://doi.org/10.22323/2.19030202>.
- Brundtland, G. H. (Hg.). (1987). *Our Common Future. Report of the World Commission on Environment and Development*. Oxford: Oxford University Press.
- Bubela, T., Nisbet, M. C., Borchelt, R., Brunger, F., Critchley, C., Einsiedel, E., et al. (2009). Science communication reconsidered. *Nature Biotechnology*, 27(6), 514–518, <https://doi.org/10.1038/nbt0609-514>.
- Bucchi, M. (1996). When scientists turn to the public: alternative routes in science communication. *Public Understanding of Science*, 5(4), 375–394, <https://doi.org/10.1088/0963-6625/5/4/005>.
- Bucchi, M. (2008). Of deficits, deviations and dialogues: Theories of public communication of science. In M. Bucchi, & B. Trench (Hg.), *Handbook of Public Communication of Science and Technology* (S. 57–76). London/New York: Routledge, <https://doi.org/10.4324/9780203928240>.
- Bucchi, M., & Trench, B. (2021). Rethinking science communication as the social conversation around science. *Journal of Science Communication*, 20(3), Y01, <https://doi.org/10.22323/2.20030401>.
- Bugge, M. M., Hansen, T., & Klitkou, A. (2016). What is the bioeconomy? A review of the literature. *Sustainability*, 8(7), 691, <https://doi.org/10.3390/su8070691>.
- Burzan, N. (2017). Menschen im Museum. Theoretische Perspektiven auf empirische Erkundungen. *Sociologia Internationalis*, 55(1), 1–26, <https://doi.org/10.3790/sint.55.1.1>.
- Cain, V., & Rader, K. A. (2017). Science communication and museums' changing roles. In K. Hall Jamieson, D. M. Kahan, & D. A. Scheufele (Hg.), *The Oxford handbook of the science of science communication* (S. 205–212). New York: Oxford University Press, <https://doi.org/10.1093/oxfordhb/9780190497620.013.23>.

- Callon, M. (1999). The Role of Lay People in the Production and Dissemination of Scientific Knowledge. *Science, Technology and Society*, 4(1), 81–94, <https://doi.org/10.1177/097172189900400106>.
- Cameron, D. F. (1971). The Museum: a Temple or the Forum. *Curator: The museum journal*, 14(1), 11–24, <https://doi.org/10.1111/j.2151-6952.1971.tb00416.x>.
- Cameron, F. R. (2010). Introduction. In F. R. Cameron, & L. Kelly (Hg.), *Hot Topics, Public Culture, Museums* (S. 1–16). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Cameron, F. R. (2011a). From mitigation to creativity: the agency of museums and science centres as the means to govern climate change. *Museum and Society*, 9(2), 90–106, <https://doi.org/10.29311/mas.v9i2.178>.
- Cameron, F. R. (2011b). Climate change as a complex phenomenon and the problem of cultural governance. *Museum and Society*, 9(2), 84–89, <https://doi.org/10.29311/mas.v9i2.177>.
- Cameron, F. R. (2012). Climate change, agencies and the museum and science centre sector. *Museum Management and Curatorship*, 27(4), 317–339, <https://doi.org/10.1080/09647775.2012.720183>.
- Cameron, F. R., & Deslandes, A. (2011). Museums and science centres as sites for deliberative democracy on climate change. *Museum and Society*, 9(2), 136–153, <https://doi.org/10.29311/mas.v9i2.181>.
- Cameron, F. R., Hodge, B., & Salazar, J. F. (2013). Representing climate change in museum space and places. *WIREs Climate Change*, 4, 9–21, <https://doi.org/10.1002/wcc.200>.
- Cameron, F. R., & Neilson, B. (2014). Introduction: Climate Change, Museum Futures. In F. R. Cameron, & B. Neilson (Hg.), *Climate Change and Museum Futures* (S. 1–8). New York/London: Routledge, <https://doi.org/10.4324/9780203752975>.
- Carnall, M., Ashby, J., & Ross, C. (2013). Natural history museums as provocateurs for dialogue and debate. *Museum Management and Curatorship*, 28(1), 55–71, <https://doi.org/10.1080/09647775.2012.754630>.
- Chambers, J. M., Wyborn, C., Ryan, M. E., Reid, R. S., Riechers, M., Serban, A., et al. (2021). Six modes of co-production for sustainability. *Nature Sustainability*, 4(11), 983–996, <https://doi.org/10.1038/s41893-021-00755-x>.
- Charmaz, K. (2014). *Constructing Grounded Theory* (2. Aufl.). Thousand Oaks/London/New Delhi/Singapore: SAGE Publications.
- Chipangura, N., & Marufu, H. (2019). Museums as Public Forums for 21st Century Societies. In R. R. Janes, & R. Sandell (Hg.), *Museum Activism*

- (S. 164–173). London/New York: Routledge, <https://doi.org/10.4324/9781351251044-16>.
- Chittenden, D., Farmelo, G., & Lewenstein, B. V. (Hg.). (2004). *Creating connections. Museums and the public understanding of current research*. Walnut Creek: AltaMira Press.
- Cho, H., Reimer, T., & McComas, K. A. (Hg.). (2014). *The SAGE Handbook of Risk Communication*. Los Angeles/London/New Delhi/Singapore/Washington D.C.: SAGE Publications, <https://doi.org/10.4135/9781483387918>.
- Clarke, A. E. (2012). *Situationsanalyse: Grounded Theory nach dem Postmodern Turn. Herausgegeben und mit einem Vorwort von Reiner Keller*. Wiesbaden: VS Verlag für Sozialwissenschaften, <https://doi.org/10.1007/978-3-531-93320-7>.
- Clifford, J. (1997). Museums as Contact Zones. In J. Clifford (Hg.), *Routes. Travel and Translation in the Late Twentieth Century* (S. 188–219). Cambridge, MA/London: Harvard University Press.
- Collins, H. M., & Evans, R. (2002). The Third Wave of Science Studies: Studies of Expertise and Experience. *Social Studies of Science*, 32(2), 235–296, <https://doi.org/10.1177/0306312702032002003>.
- Conn, S. (2010). *Do Museums Still Need Objects?* Philadelphia: University of Pennsylvania Press, <https://doi.org/10.9783/9780812201659>.
- Cook, B. R., & Overpeck, J. T. (2018). Relationship-building between climate scientists and publics as an alternative to information transfer. *WIREs Climate Change*, 10(2), e570, <https://doi.org/10.1002/wcc.570>.
- Corbin, J., & Strauss, A. L. (2007). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks/London/New Delhi/Singapore: SAGE Publications, <https://doi.org/10.4135/9781452230153>.
- Corner, A., & Groves, C. (2014). Breaking the climate change communication deadlock. *Nature Climate Change*, 4(9), 743–745, <https://doi.org/10.1038/nclimate2348>.
- Dausien, B. (2019). »Doing reflexivity«: Interpretations- und Forschungswerkstätten. Überlegungen und Fragen (nicht nur) aus der Perspektive von »Anfänger\*innen« in der Biographieforschung. In G. Jost, & M. Haas (Hg.), *Handbuch zur soziologischen Biographieforschung. Grundlagen für die Praxis* (S. 257–276). Opladen/Toronto: Verlag Barbara Budrich.
- Davies, S. M. (2010). The co-production of temporary museum exhibitions. *Museum Management and Curatorship*, 25(3), 305–321, <https://doi.org/10.1080/09647775.2010.498988>.

- Davies, S. R. (2009). Doing Dialogue: Genre and Flexibility in Public Engagement with Science. *Science as Culture*, 18(4), 397–416, <https://doi.org/10.1080/O9505430902870591>.
- Davies, S. R. (2019). Science Communication as Emotion Work: Negotiating Curiosity and Wonder at a Science Festival. *Science as Culture*, 28(4), 538–561, <https://doi.org/10.1080/O9505431.2019.1597035>.
- Davies, S. R. (2021). An Empirical and Conceptual Note on Science Communication's Role in Society. *Science Communication*, 43(1), 116–133, <https://doi.org/10.1177/1075547020971642>.
- Davies, S. R., Franks, S., Roche, J., Schmidt, A. L., Wells, R., & Zollo, F. (2021). The Landscape of European Science Communication. *Journal of Science Communication*, 20(3), A01, <https://doi.org/10.22323/2.20030201>.
- Davies, S. R., Halpern, M., Horst, M., Kirby, D., & Lewenstein, B. V. (2019). Science stories as culture: experience, identity, narrative and emotion in public communication of science. *Journal of Science Communication*, 18(5), A01, <https://doi.org/10.22323/2.18050201>.
- Davies, S. R., & Horst, M. (2016). *Science Communication: Culture, Identity and Citizenship*. London: Palgrave Macmillan, <https://doi.org/10.1057/978-1-137-50366-4>.
- Davis, J. (2020). Museums and climate action: a special issue of Museum Management and Curatorship. *Museum Management and Curatorship*, 35(6), 584–586, <https://doi.org/10.1080/O9647775.2020.1842235>.
- Davis, L., Fähnrich, B., Nepote, A. C., Riedlinger, M., & Trench, B. (2018). Environmental Communication and Science Communication—Conversations, Connections and Collaborations. *Environmental Communication*, 12(4), 431–437, <https://doi.org/10.1080/17524032.2018.1436082>.
- Dawson, E. (2014). »Not Designed for Us«: How Science Museums and Science Centers Socially Exclude Low-Income, Minority Ethnic Groups. *Science Education*, 98(6), 981–1008, <https://doi.org/10.1002/sce.21133>.
- Dawson, E. (2018). Reimagining publics and (non) participation: Exploring exclusion from science communication through the experiences of low-income, minority ethnic groups. *Public Understanding of Science*, 27(7), 772–786, <https://doi.org/10.1177/O963662517750072>.
- de Haan, G. (2008). Gestaltungskompetenz als Kompetenzkonzept der Bildung für nachhaltige Entwicklung. In I. Bormann, & G. de Haan (Hg.), *Kompetenzen der Bildung für nachhaltige Entwicklung. Operationalisierung, Messung, Rahmenbedingungen, Befunde* (S. 23–43). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-531-90832-8\\_4](https://doi.org/10.1007/978-3-531-90832-8_4).

- Defila, R., Di Giulio, A., & Kaufmann-Hayoz, R. (Hg.). (2011). *Wesen und Wege nachhaltigen Konsums. Ergebnisse aus dem Themenschwerpunkt »Vom Wissen zum Handeln – Neue Wege zum Nachhaltigen Konsum«*. München: oekom, <https://doi.org/10.14512/9783865813565>.
- Deleuze, G. (1988). *Spinoza: Praktische Philosophie*. Berlin: Merve-Verlag.
- Delicado, A. (2009). Scientific controversies in museums: notes from a semi-peripheral country. *Public Understanding of Science*, 18(6), 759–767, <https://doi.org/10.1177/0963662508098577>.
- Delicado, A., Rowland, J., Vengut Climent, E., Mendoza-Poudereux, I., & Gas-ton, E. (2022). Citizen consultations on science communication: A citizen science approach. *Metode Science Studies Journal*, 12, 47–53, <https://doi.org/10.7203/metode.12.17510>.
- Denzin, N. K. (2009). *The Research Act. A Theoretical Introduction to Sociological Methods*. New York: Routledge, <https://doi.org/10.4324/9781315134543>.
- Desvallées, A., & Mairesse, F. (2010). *Key concepts of Museology*. Paris: Armand Colin.
- Deutscher Museumsbund (2020). *Bildung und Vermittlung im Museum gestalten. Leitfaden*. Berlin: Deutscher Museumsbund e.V., Bundesverband Museumspädagogik e.V., lab.Bode – Initiative zur Stärkung der Vermittlungsarbeit in Museen.
- Diaz-Bohne, R. (2014). Die Performativität der qualitativen Sozialforschung. In G. Mey, & K. Mruck (Hg.), *Qualitative Forschung Analysen und Diskussionen – 10 Jahre Berliner Methodentreffen* (S. 103–116). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-05538-7\\_6](https://doi.org/10.1007/978-3-658-05538-7_6).
- Dietz, T., Börner, J., Förster, J. J., & Von Braun, J. (2018). Governance of the Bioeconomy: A Global Comparative Study of National Bioeconomy Strategies. *Sustainability*, 10(9), 3190, <https://doi.org/10.3390/su10093190>.
- Dijkstra, A. M., de Bakker, L., van Dam, F., & Jensen, E. A. (2020). Setting the Scene. In F. van Dam, L. de Bakker, A. M. Dijkstra, & E. A. Jensen (Hg.), *Science Communication. An Introduction* (S. 1–16). Singapore: World Scientific, [https://doi.org/10.1142/9789811209888\\_0001](https://doi.org/10.1142/9789811209888_0001).
- Dillon, J., Achiam, M., & Glackin, M. (2021). The Role of Out-of-School Science Education in Addressing Wicked Problems: An Introduction. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 1–8). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_1](https://doi.org/10.1007/978-3-030-74266-9_1).

- Dillon, J., DeWitt, J., Pegram, E., Irwin, B., Crowley, K., Haydon, R., et al. (2016). *A Learning Research Agenda for Natural History Institutions*. London: Natural History Museum.
- Dorfman, E. (Hg.). (2018a). *The Future of Natural History Museums*. Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892>.
- Dorfman, E. (2018b). Introduction. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 1–9). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-1>.
- Downs, A. (1972). Up and Down with Ecology – the Issue-Attention Cycle. *The Public Interest*, 28, 38–50.
- Dubin, S. C. (2006). Incivilities in Civil(-ized) Places: »Culture Wars« in Comparative Perspective. In S. Macdonald (Hg.), *A Companion to Museum Studies* (S. 477–493). Oxford: Blackwell, <https://doi.org/10.1002/9780470996836.ch29>.
- Dufresne-Tassé, C., & Pénicaud, P. (2018). Teaching in natural history museums. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 119–139). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-8>.
- Durant, J. (Hg.). (1992a). *Museums and the Public Understanding of Science*. London: Science Museum.
- Durant, J. (1992b). Introduction. In J. Durant (Hg.), *Museums and the Public Understanding of Science* (S. 7–14). London: Science Museum.
- Durant, J. (2004). The challenge and the opportunity of presenting »unfinished science«. In D. Chittenden, G. Farmelo, & B. V. Lewenstein (Hg.), *Creating connections. Museums and the public understanding of current research* (S. 47–60). Walnut Creek: AltaMira Press.
- Eikeland, I., & Stuedahl, D. (2021). Co-Designing a Controversy-Based Educational Programme in a Science Centre. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 9–32). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_2](https://doi.org/10.1007/978-3-030-74266-9_2).
- Einsiedel, A. A. J., & Einsiedel, E. F. (2004). Museums as Agora: Diversifying Approaches to Engaging Publics in Research. In D. Chittenden, G. Farmelo, & B. V. Lewenstein (Hg.), *Creating connections. Museums and the public understanding of current research* (S. 73–86). Walnut Creek: AltaMira Press.
- Engels, A., & Pohlmann, A. (2016). *Klimawandel und nachhaltige Entwicklung: Theoretische Grundlagen zum Verständnis von gesellschaftlichem Wandel und gesellschaftlichen Transformationsprozessen. Literaturstudien aus den Sozial- und*

- Wirtschaftswissenschaften. Global Transformations towards a Low Carbon Society* (Bd. 12). Hamburg: Universität Hamburg.
- Erlemann, M. (2010). Nanotechnologien im »Dialog« – Partizipative Technikgestaltung oder Sicherung gesellschaftlicher Akzeptanz? In P. Lucht, M. Erlemann, & E. Ruiz Ben (Hg.), *Technologisierung gesellschaftlicher Zukünfte. Nanotechnologien in wissenschaftlicher, politischer und öffentlicher Praxis* (S. 55–73). Herbolzheim: Centaurus Verlag & Media, [https://doi.org/10.1007/978-3-86226-481-0\\_4](https://doi.org/10.1007/978-3-86226-481-0_4).
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from national systems and »Mode 2« to a triple helix of university-industry-government relations. *Research Policy*, 29, 109–123, [https://doi.org/10.1016/0048-7333\(99\)00055-4](https://doi.org/10.1016/0048-7333(99)00055-4).
- European Environment Agency (2018). *The circular economy and the bioeconomy. Partners in sustainability. EEA Report* (Bd. 8). Copenhagen: European Environment Agency.
- Eversberg, D., Holz, J., & Pungas, L. (2023). The bioeconomy and its untenable growth promises: reality checks from research. *Sustainability Science*, 18(2), 569–582, <https://doi.org/10.1007/s11625-022-01237-5>.
- Fährnich, B. (2017). Wissenschaftsevents zwischen Popularisierung, Engagement und Partizipation. In H. Bonfadelli, B. Fährnich, C. Lüthje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 165–182). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_9](https://doi.org/10.1007/978-3-658-12898-2_9).
- Falk, J. H., & Dierking, L. D. (1992). *The museum experience*. Washington D.C.: Whalesback Books.
- Falk, J. H., & Dierking, L. D. (2000). *Learning from museums. Visitor experiences and the making of meaning*. Walnut Creek: AltaMira Press.
- Falk, J. H., & Dierking, L. D. (2013). *The museum experience revisited*. Walnut Creek: Left Coast Press.
- Falk, J. H., & Storksdieck, M. (2005). Learning science from museums. *História, Ciências, Saúde-Manguinhos*, 12(suppl.), 117–143, <https://doi.org/10.1590/s0104-59702005000400007>.
- Farmelo, G. (2004). Only Connect: Linking the Public with Current Scientific Research. In D. Chittenden, G. Farmelo, & B. V. Lewenstein (Hg.), *Creating connections. Museums and the public understanding of current research* (S. 1–26). Walnut Creek: AltaMira Press.

- Felt, U., & Fochler, M. (2010). Machineries for Making Publics: Inscribing and De-scribing Publics in Public Engagement. *Minerva*, 48(3), 219–238, <https://doi.org/10.1007/s11024-010-9155-x>.
- Field, H., & Powell, P. (2001). Public understanding of science versus public understanding of research. *Public Understanding of Science*, 10(4), 421–426, <http://doi.org/10.3109/a036879>.
- Findlen, P. (1994). *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy*. Berkeley/Los Angeles/London: University of California Press.
- Fiorino, D. J. (1990). Citizen participation and environmental risk: A survey of institutional mechanisms. *Science, Technology, & Human Values*, 15(2), 226–243, <https://doi.org/10.1177/016224399001500204>.
- Fischer, J., Manning, A. D., Steffen, W., Rose, D. B., Daniell, K., Felton, A., et al. (2007). Mind the sustainability gap. *Trends in Ecology & Evolution*, 22(12), 621–624, <https://doi.org/10.1016/j.tree.2007.08.016>.
- Fleck, L. (2012 [1935]). *Entstehung und Entwicklung einer wissenschaftlichen Tatsache. Einführung in die Lehre vom Denkstil und Denkkollektiv* (9. Aufl.). Frankfurt a.M.: Suhrkamp Taschenbuch Verlag.
- Flick, U. (2014). Gütekriterien qualitativer Sozialforschung. In N. Baur, & J. Blausius (Hg.), *Handbuch Methoden der empirischen Sozialforschung* (S. 410–423). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-531-18939-0\\_29](https://doi.org/10.1007/978-3-531-18939-0_29).
- Franzen, M., Rödder, S., & Weingart, P. (2012a). Wissenschaft und Massenmedien: Von Popularisierung zu Medialisierung. In S. Maasen, M. Kaiser, M. Reinhart, & B. Sutter (Hg.), *Handbuch Wissenschaftssoziologie*, S. 355–364. Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-531-18918-5\\_28](https://doi.org/10.1007/978-3-531-18918-5_28).
- Franzen, M., Weingart, P., & Rödder, S. (2012b). Exploring the Impact of Science Communication on Scientific Knowledge Production: An Introduction. In S. Rödder, M. Franzen, & P. Weingart (Hg.), *The Sciences' Media Connection – Public Communication and its Repercussions* (S. 3–14). Dordrecht: Springer, [https://doi.org/10.1007/978-94-007-2085-5\\_1](https://doi.org/10.1007/978-94-007-2085-5_1).
- Friedman, A. J. (2010). The evolution of the science museum. *Physics Today*, 63(10), 45–51, <https://doi.org/10.1063/1.3502548>.
- Froschauer, U., & Lueger, M. (2002). ExpertInnengespräche in der interpretativen Organisationsforschung. In A. Bogner, B. Littig, & W. Menz (Hg.), *Das Experteninterview. Theorie, Methode, Anwendung* (S. 223–240). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-322-93270-9\\_11](https://doi.org/10.1007/978-3-322-93270-9_11).

- Froschauer, U., & Lueger, M. (2003). *Das qualitative Interview: zur Praxis interpretativer Analyse sozialer Systeme*. Wien: Facultas, <https://doi.org/10.36198/9783838524184>.
- Fuhr, H. (2018). Verwaltung und Wicked Problems. In S. Veit, C. Reichard, & G. Wewer (Hg.), *Handbuch zur Verwaltungsreform* (S. 1–10). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-21571-2\\_18-1](https://doi.org/10.1007/978-3-658-21571-2_18-1).
- Funtowicz, S. O., & Ravetz, J. R. (1993). Science for the post-normal age. *Futures*, 25(7), 739–755, [https://doi.org/10.1016/0016-3287\(93\)90022-L](https://doi.org/10.1016/0016-3287(93)90022-L).
- Garthe, C. J. (2018). The Natural Futures Museum. Interactivity and participation as key instruments for engaging audiences. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 140–154). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-9>.
- Gerhards, J. (2001). Der Aufstand des Publikums. Eine systemtheoretische Interpretation des Kulturwandels in Deutschland zwischen 1960 und 1989. *Zeitschrift für Soziologie*, 30(3), 163–184, <https://doi.org/10.1515/zfsoz-2001-0301>.
- Gerhards, J., & Neidhardt, F. (1990). *Strukturen und Funktionen moderner Öffentlichkeit. Fragestellungen und Ansätze*. Veröffentlichungsreihe der Abteilung Öffentlichkeit und soziale Bewegung des Forschungsschwerpunkts Sozialer Wandel, Institutionen und Vermittlungsprozesse. Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- Gerhards, J., & Schäfer, M. S. (2011). Normative Modelle wissenschaftlicher Öffentlichkeit. Theoretische Systematisierung und Illustration am Fall der Humangenomforschung. In G. Ruhrmann, J. Milde, & A. F. Zillich (Hg.), *Molekulare Medizin und Medien: Zur Darstellung und Wirkung eines kontroversen Wissenschaftsthemas* (S. 15–36). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-531-92651-3\\_2](https://doi.org/10.1007/978-3-531-92651-3_2).
- Gesser, S., Handschin, M., Jannelli, A., & Lichtensteiger, S. (Hg.). (2012a). *Das partizipative Museum. Zwischen Teilhabe und User Generated Content. Neue Anforderungen an kulturhistorische Ausstellungen*. Bielefeld: transcript Verlag, <https://doi.org/10.1515/transcript.9783839417263>.
- Gesser, S., Jannelli, A., Handschin, M., & Lichtensteiger, S. (2012b). Das partizipative Museum. In S. Gesser, M. Handschin, A. Jannelli, & S. Lichtensteiger (Hg.), *Das partizipative Museum. Zwischen Teilhabe und User Generated Content. Neue Anforderungen an kulturhistorische Ausstellungen* (S. 10–15). Bielefeld: transcript Verlag. <https://doi.org/10.1515/transcript.9783839417263>.

- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., & Scott, P. (1994). *The new production of knowledge: The dynamics of research in contemporary societies*. London: SAGE Publications.
- Gieryn, T. F. (1983). Boundary-work and the demarcation of science from non-science: Strains and interests in professional ideologies of scientists. *American Sociological Review*, 48(6), 781–795, <https://doi.org/10.2307/2095325>.
- Gieryn, T. F. (1995). Boundaries of science. In S. Jasanoff, G. E. Markle, J. C. Petersen, & T. Pinch (Hg.), *Handbook of science and technology studies* (S. 393–443). Thousand Oaks/London/New Delhi: SAGE Publications.
- Gilbert, J., K., & Stockmayer, S. (2013). *Communication and Engagement with Science and Technology. Issues and Dilemmas. A Reader in Science Communication*. New York/London: Routledge, <https://doi.org/10.4324/9780203807521>.
- Gladstone, I., & Pearl, P. (2022). Extinction Voices, Extinction Silences: Reflecting on a Decolonial Role for Natural History Exhibits in Promoting Thinking about Global Ecological Crisis, Using a Case Study from Bristol Museums. *Museum and Society*, 20(1), 50–70, <https://doi.org/10.29311/mas.v20i1.3806>.
- Glaser, B. G. (1978). *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*. Mill Valley: The Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New Brunswick/London: AldineTransaction.
- Godemann, J. (2008). Knowledge integration: a key challenge for transdisciplinary cooperation. *Environmental Education Research*, 14(6), 625–641, <https://doi.org/10.1080/13504620802469188>.
- Godemann, J., & Michelsen, G. (Hg.). (2011). *Sustainability Communication. Interdisciplinary Perspectives and Theoretical Foundations*. Dordrecht/Heidelberg/London/New York: Springer, <https://doi.org/10.1007/978-94-007-1697-1>.
- Goffman, E. (2009 [1983]). *Wir alle spielen Theater. Die Selbstdarstellung im Alltag*. München/Zürich: Piper Verlag.
- Goven, J. (2006). Dialogue, governance, and biotechnology: acknowledging the context of the conversation. *The Integrated Assessment Journal*, 6(2), 99–116.
- Graham, H. (2016). The >co< in co-production: Museums, community participation and Science and Technology Studies. *Science Museum and Research*, 5, <https://doi.org/10.15180/160502>.
- Griem, J. (2018). *Zumutungen. Wissenschaftskommunikation und ihre Widersprüche*. Vortrag, Forum Wissenschaftskommunikation, Bonn, 7.-9.11.2018.
- Grotz, K., & Rahempour, P. (2024). *Das verborgene Kapital: Vertrauen in Museen in Deutschland. Wie die Menschen in Deutschland auf eine Kultureinrichtung im*

- Wandel blicken*. Berlin: Institut für Museumsforschung – Stiftung Preußischer Kulturbesitz.
- Grundmann, R., & Rödder, S. (2019). Sociological Perspectives on Earth System Modeling. *Journal of Advances in Modeling Earth Systems*, 11(12), 3878–3892, <https://doi.org/10.1029/2019MS001687>.
- Grunwald, A. (2018). Warum Konsumentenverantwortung allein die Umwelt nicht rettet. In A. Henkel, N. Lüdtke, N. Buschmann, & L. Hochmann (Hg.), *Reflexive Responsibilisierung* (S. 421–436). Bielefeld: transcript Verlag, <https://doi.org/10.14361/9783839440667-024>.
- Grunwald, A. (2020). Auf dem Weg zu einer nachhaltigen Bioökonomie. In W. Konrad, D. Scheer, & A. Weidtmann (Hg.), *Bioökonomie nachhaltig gestalten. Perspektiven für ein zukunftsfähiges Wirtschaften* (S. 19–42). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-29433-5\\_2](https://doi.org/10.1007/978-3-658-29433-5_2).
- Guasco, A. (2021). ›As dead as a dodo: Extinction narratives and multispecies justice in the museum. *Environment and Planning E: Nature and Space*, 4(3), 1055–1076, <https://doi.org/10.1177/2514848620945310>.
- Guston, D. H. (2001). Boundary Organizations in Environmental Policy and Science: An Introduction. *Science, Technology, & Human Values*, 26(4), 399–408, <https://doi.org/10.1177/016224390102600401>.
- Hallahan, K., Holtzhausen, D., van Ruler, B., Verčič, D., & Sriramesh, K. (2007). Defining Strategic Communication. *International Journal of Strategic Communication*, 1(1), 3–35, <https://doi.org/10.1080/15531180701285244>.
- Hallmann, C. A., Sorg, M., Jongejans, E., Siepel, H., Hofland, N., Schwan, H., et al. (2017). More than 75 percent decline over 27 years in total flying insect biomass in protected areas. *PLOS ONE*, 12(10), e0185809, <https://doi.org/10.1371/journal.pone.0185809>.
- Hamilton, P., & Christian Ronning, E. (2020). Why Museums? Museums as Conveners on Climate Change. *Journal of Museum Education*, 45(1), 16–27, <https://doi.org/10.1080/10598650.2020.1720375>.
- Haraway, D. (1984). Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908–1936. *Social Text*(11), 20–64, <https://doi.org/10.2307/466593>.
- Hausknost, D., Schriebl, E., Lauk, C., & Kalt, G. (2017). A transition to which bioeconomy? An exploration of diverging techno-political choices. *Sustainability*, 9(4), 669, <https://doi.org/10.3390/su9040669>.
- Head, B. W. (2008). Wicked Problems in Public Policy. *Public Policy*, 3(2), 101–118.
- Hein, G. E. (1998). *Learning in the Museum*. London: Routledge.

- Helfferrich, C. (2004). *Die Qualität qualitativer Daten: Manual für die Durchführung qualitativer Interviews*. Wiesbaden: VS Verlag für Sozialwissenschaften, <https://doi.org/10.1007/978-3-322-93445-1>.
- Hempel, C., Will, S., & Zander, K. (2019). *Bioökonomie aus Sicht der Bevölkerung. Thünen Working Paper* (Bd. 115). Braunschweig: Johann Heinrich von Thünen-Institut.
- Herzog, L., Lenschow, A., & Pollex, J. (2023). Between Science, Movement, and Democracy: Scientists for Future in the Politics-Society Interface. *Politische Vierteljahresschrift*, 64, 763–800, <https://doi.org/10.1007/s11615-023-00464-4>.
- Hessels, L. K., & van Lente, H. (2008). Re-thinking new knowledge production: A literature review and a research agenda. *Research Policy*, 37(4), 740–760, <https://doi.org/10.1016/j.respol.2008.01.008>.
- Hetland, P. (2019). Constructing publics in museums' science communication. *Public Understanding of Science*, 28(8), 958–972, <https://doi.org/10.1177/0963662519870692>.
- Hildenbrand, B. (1991). Fallrekonstruktive Forschung. In U. Flick, H. Keupp, L. v. Rosenstiel, & S. Wolff (Hg.), *Handbuch qualitative Sozialforschung: Grundlagen, Konzepte, Methoden und Anwendungen* (S. 256–260). München: Beltz Psychologie Verlags Union.
- Hilgartner, S. (1990). The Dominant View of Popularization: Conceptual Problems, Political Uses. *Social Studies of Science*, 20(3), 519–539, <https://doi.org/10.1177/030631290020003006>.
- Hiller, P. (2009). »Grenzorganisationen« und funktionale Differenzierung. In J. Halfmann, & F. Schützenmeister (Hg.), *Organisationen der Forschung: Der Fall der Atmosphärenwissenschaft* (S. 146–170). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-531-91639-2\\_7](https://doi.org/10.1007/978-3-531-91639-2_7).
- Hine, A., & Medvecky, F. (2015). Unfinished Science in Museums: A push for critical science literacy. *Journal of Science Communication*, 14(2), A04, <https://doi.org/10.22323/2.14020204>.
- Hirsch Hadorn, G., Hoffman-Riem, H., Biber-Klemm, S., Grossenbacher-Mansuy, W., Joye, D., Pohl, C., et al. (2008). *Handbook of transdisciplinary research*. Berlin/Heidelberg/Dordrecht/New York: Springer, <https://doi.org/10.1007/978-1-4020-6699-3>.
- Hitzler, R. (1994). Wissen und Wesen des Experten. Ein Annäherungsversuch – zur Einleitung. In R. Hitzler, A. Honer, & C. Maeder (Hg.), *Expertenwissen: Die institutionalisierte Kompetenz zur Konstruktion von Wirklichkeit* (S. 13–30).

- Opladen: Westdeutscher Verlag, [https://doi.org/10.1007/978-3-322-90633-5\\_1](https://doi.org/10.1007/978-3-322-90633-5_1).
- Hodge, B. (2014). Beyond Confrontation. The Trialogue Strategy for Mediating Climate Change. In F. R. Cameron, & B. Neilson (Hg.), *Climate Change and Museum Futures* (S. 135–151). New York/London: Routledge.
- Holmes, D. C., & Richardson, L. M. (Hg.). (2020). *Research Handbook on Communicating Climate Change*. Cheltenham/Northampton: Edward Elgar Publishing Limited, <https://doi.org/10.4337/9781789900408>.
- Holz, J., & Koch, P. (2023). Wie die Bioökonomie versucht nachhaltig zu sein – eine Diskussion am Beispiel der europäischen Bioökonomiepolitik und der finnischen Forstwirtschaft. In A. Henkel, S. Berg, M. Bergmann, H. Gruber, N. C. Karafyllis, D. Mader, et al. (Hg.), *Dilemmata der Nachhaltigkeit* (S. 207–226). Baden-Baden: Nomos Verlagsgesellschaft, <https://doi.org/10.5771/9783748938507-207>.
- Hooper-Greenhill, E. (1999). *The Educational Role of the Museum*. London/New York: Routledge.
- Hopf, C. (1978). Die Pseudo-Exploration – Überlegungen zur Technik qualitativer Interviews in der Sozialforschung. *Zeitschrift für Soziologie*, 7(2), 97–115, <https://doi.org/10.1515/zfsoz-1978-0201>.
- Hoppe, R., Wesselink, A., & Cairns, R. (2013). Lost in the problem: the role of boundary organisations in the governance of climate change. *WIREs Climate Change*, 4, 283–300, <https://doi.org/10.1002/wcc.225>.
- House of Lords Select Committee on Science and Technology (2000). *Science and Society (Third Report)*. London: House of Lords.
- Hudson Hill, S. (2020). A Terrible Beauty: Art and Learning in the Anthropocene. *Journal of Museum Education*, 45(1), 74–90, <https://doi.org/10.1080/10598650.2020.1723357>.
- Hunecke, M. (2011). Wissensintegration in der transdisziplinären Nachhaltigkeitsforschung. *GAIA – Ecological Perspectives for Science and Society*, 20(2), 104–111, <https://doi.org/10.14512/gaia.20.2.7>.
- ICOM International Council of Museums (2013). *ICOM Code of Ethics for Natural History Museum*. Paris: ICOM.
- ICOM International Council of Museums (2022). *Standing Committee for the Museum Definition – ICOM Define Final Report (2020–2022)*. Prague: ICOM International Council of Museums.
- Irwin, A., & Wynne, B. (Hg.). (1996a). *Misunderstanding science? The public reconstruction of science and technology*. Cambridge: Cambridge University Press, <https://doi.org/10.1017/CBO9780511563737>.

- Irwin, A., & Wynne, B. (1996b). Introduction. In A. Irwin, & B. Wynne (Hg.), *Misunderstanding science? The public reconstruction of science and technology* (S. 1–17). Cambridge: Cambridge University Press, <https://doi.org/10.1017/CBO9780511563737.001>.
- Ives, C. D., Abson, D. J., von Wehrden, H., Dorninger, C., Klanićki, K., & Fischer, J. (2018). Reconnecting with nature for sustainability. *Sustainability Science*, 13(5), 1389–1397, <https://doi.org/10.1007/s11625-018-0542-9>.
- Jahn, T. (2008). Transdisziplinarität in der Forschungspraxis. In M. Bergmann, & E. Schramm (Hg.), *Transdisziplinäre Forschung. Integrative Forschungsprozesse verstehen und bewerten* (S. 22–37). Frankfurt/New York: Campus.
- Jahn, T., Bergmann, M., & Keil, F. (2012). Transdisciplinarity: Between mainstreaming and marginalization. *Ecological Economics*, 79, 1–10, <https://doi.org/10.1016/j.ecolecon.2012.04.017>.
- Jahn, T., Hummel, D., Drees, L., Liehr, S., Lux, A., Mehring, M., et al. (2020). Sozial-ökologische Gestaltung im Anthropozän. *GAIA – Ecological Perspectives for Science and Society*, 29(2), 93–97, <https://doi.org/10.14512/gaia.29.2.6>.
- Jahnsen, S. S. (2021). The balancing act. Museums as spaces for democratic debate: a case study from Oslo, Norway. *Museums & Social Issues*, 14(1–2), 4–22, <https://doi.org/10.1080/15596893.2021.1970901>.
- Janes, R. R. (2009). *Museums in a Troubled World: Renewal, Irrelevance Or Collapse?* Abigdon/New York: Routledge, <https://doi.org/10.4324/9780203877456>.
- Janes, R. R. (2015). The end of neutrality: A modest manifesto. *Informal Learning Review*, 135, 3–8.
- Janes, R. R., & Conaty, G. T. (Hg.). (2005). *Looking Reality in the Eye: Museums and Social Responsibility*. Calgary: University of Calgary Press, <https://doi.org/10.1515/9781552383933>.
- Janes, R. R., & Sandell, R. (2019). Posterity has arrived. The necessary emergence of museum activism. In R. R. Janes, & R. Sandell (Hg.), *Museum Activism* (S. 1–21). London/New York: Routledge, <https://doi.org/10.4324/9781351251044-1>.
- Jasanoff, S. (2008). Speaking Honestly to Power. Review of *The Honest Broker: Making Sense of Science in Policy and Politics*, by Roger A. Pielke. *American Scientist*, 93(3), 240–243, <https://doi.org/10.1511/2008.71.240>.
- Jørgensen, D., Robin, L., & Fojuth, M.-T. (2022). Slowing Time in the Museum in a Period of Rapid Extinction. *Museum and Society*, 20(1), 1–12, <https://doi.org/10.29311/mas.v20i1.3804>.

- Kaldewey, D. (2018). The Grand Challenges Discourse: Transforming Identity Work in Science and Science Policy. *Minerva*, 56(2), 161–182, <https://doi.org/10.1007/s11024-017-9332-2>.
- Kappel, K., & Holmen, S. J. (2019). Why Science Communication, and Does It Work? A Taxonomy of Science Communication Aims and a Survey of the Empirical Evidence. *Frontiers in Communication*, 4(55), <https://doi.org/10.3389/fcomm.2019.00055>.
- Keller, R. (2009). Das interpretative Paradigma. In D. Brock, M. Junge, H. Diefenbach, R. Keller, & D. Villányi (Hg.), *Soziologische Paradigmen nach Talcott Parsons. Eine Einführung* (S. 17–126). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-531-91454-1\\_2](https://doi.org/10.1007/978-3-531-91454-1_2).
- Kiefer, M. (2021). Re-basing Scientific Authority: Anthropocene Narratives in the Carnegie Natural History Museum. *Science as Culture*, 30(1), 117–139, <https://doi.org/10.1080/09505431.2020.1766010>.
- Knüpeler, S., Voglhuber-Slavinsky, A., Hüsing, B., & Schirrmeister, E. (2021). What Can We Do? Participatory Foresight for the Bioeconomy Transition. In E. Koukios, & A. Sacio-Szymańska (Hg.), *Bio#Futures: Foreseeing and Exploring the Bioeconomy* (S. 25–36). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-64969-2\\_2](https://doi.org/10.1007/978-3-030-64969-2_2).
- Klein, J. T., Häberli, R., Scholz, R. W., Grossenbacher-Mansuy, W., Bill, A., & Welti, M. (Hg.). (2001). *Transdisciplinarity: Joint Problem Solving among Science, Technology, and Society. An Effective Way for Managing Complexity*. Basel: Birkhäuser, <https://doi.org/10.1007/978-3-0348-8419-8>.
- Knudsen, L. V. (2016). Participation at work in the museum. *Museum Management and Curatorship*, 31(2), 193–211, <https://doi.org/10.1080/09647775.2016.1146916>.
- Knutti, R. (2019). Closing the Knowledge-Action Gap in Climate Change. *One Earth*, 1(1), 21–23, <https://doi.org/10.1016/j.oneear.2019.09.001>.
- Kollmann, E. K., Reich, C., Bell, L., & Goss, J. (2013). Tackling Tough Topics: Using Socio-Scientific Issues to Help Museum Visitors Participate in Democratic Dialogue and Increase Their Understandings of Current Science and Technology. *Journal of Museum Education*, 38(2), 174–186, <https://doi.org/10.1080/10598650.2013.11510768>.
- Könneker, C. (2017). Wissenschaftskommunikation in vernetzten Öffentlichkeiten. In H. Bonfadelli, B. Fähnrich, C. Lüthje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 453–476). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_24](https://doi.org/10.1007/978-3-658-12898-2_24).

- Koster, E. H. (1999). In Search of Relevance: Science Centers as Innovators in the Evolution of Museums. *Daedalus*, 128(3), 277–296.
- Koster, E. H. (2006). The relevant Museum: A Reflection on Sustainability. *Museum News*, May/June, 67–70 u. 85–90.
- Koster, E. H., Dorfman, E., & Nyambe, T. S. (2018). A holistic ethos for nature-focused museums in the Anthropocene. In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 29–48). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-3>.
- Köstering, S. (2003). *Natur zum Anschauen. Das Naturkundemuseum des deutschen Kaiserreichs 1871–1914*. Köln/Weimar/Wien: Böhlau Verlag.
- Kretschmann, C. (2006). *Räume öffnen sich. Naturhistorische Museen im Deutschland des 19. Jahrhunderts*. Berlin: Akademie Verlag, <https://doi.org/10.1524/9783050047829>.
- Kretser, J., & Chandler, K. (2020). Convening Young Leaders for Climate Resilience. *Journal of Museum Education*, 45(1), 52–63, <https://doi.org/10.1080/10598650.2020.1723994>.
- Kuhlmann, S., & Rip, A. (2018). Next-Generation Innovation Policy and Grand Challenges. *Science and Public Policy*, 45, 448–454, <https://doi.org/10.1093/SIPOL/SCY011>.
- Künkel, P., & Ragnarsdottir, K. V. (Hg.). (2022). *Transformation Literacy. Pathways to Regenerative Civilizations*. Cham: Springer International Publishing, <https://doi.org/10.1007/978-3-030-93254-1>.
- Kupper, F., Moreno-Castro, C., & Fornetti, A. (2021). Rethinking science communication in a changing landscape. *Journal of Science Communication*, 20(3), E, <https://doi.org/10.22323/2.20030501>.
- Larsen, L. T. (2007). SPEAKING TRUTH TO BIOPOWER. On the Genealogy of Bioeconomy. *Distinktion: Journal of Social Theory*, 8(1), 9–24, <https://doi.org/10.1080/1600910X.2007.9672936>.
- Latour, B. (1993). *We have never been modern*. Cambridge, MA: Harvard University Press.
- Lawrence, M. G., Williams, S., Nanz, P., & Renn, O. (2022). Characteristics, potentials, and challenges of transdisciplinary research. *One Earth*, 5(1), 44–61, <https://doi.org/10.1016/j.oneear.2021.12.010>.
- Lehr, J. L., McCallie, E., Davies, S. R., Caron, B. R., Gammon, B., & Duensing, S. (2007). The Value of »Dialogue Events« as Sites of Learning: An exploration of research and evaluation frameworks. *International Journal of Science Education*, 29(12), 1467–1487, <https://doi.org/10.1080/09500690701494092>.

- Lentsch, J. (2020). National Academies: Knowledge Brokers in a Pluralist World. *GAIA – Ecological Perspectives for Science and Society*, 19(110–113), <https://doi.org/10.14512/gaia.19.2.9>.
- Lavidow, L., Nieddu, M., Vivien, F.-D., & Béfot, N. (2019). Transitions towards a European Bioeconomy: Life Sciences versus agroecology trajectories. In G. Allaire, & B. Daviron (Hg.), *Ecology, Capitalism and the New Agricultural Economy: The Second Great Transformation* (S. 181–203). London: Routledge, <https://doi.org/10.4324/9781351210041-9>.
- Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change. *Policy Sciences*, 45(2), 123–152, <https://doi.org/10.1007/s11077-012-9151-0>.
- Levinson, R. (2010). Science education and democratic participation: an uneasy congruence? *Studies in Science Education*, 46(1), 69–119, <https://doi.org/10.1080/03057260903562433>.
- Lewenstein, B. V., & Bonney, R. (2004). Different ways of looking at public understanding of research. In D. Chittenden, G. Farmelo, & B. V. Lewenstein (Hg.), *Creating connections. Museums and the public understanding of current research* (S. 63–72). Walnut Creek: AltaMira Press.
- Liberatore, A., & Funtowicz, S. (2003). ›Democratising‹ expertise, ›expertising‹ democracy: What does this mean, and why bother? *Science and Public Policy*, 30(3), 146–150, <https://doi.org/10.3152/147154303781780551>.
- Lidchi, H. (2013). The Poetics and Politics of Exhibiting Other Cultures. In S. Hall, J. Evans, & S. Nixon (Hg.), *Representation* (2. Aufl.) (S. 168–184). Thousand Oaks/London/New Delhi: SAGE Publications.
- Lonetree, A. (2012). *Decolonizing museums: Representing Native America in National and Tribal Museums*. Chapel Hill: University of North Carolina Press.
- Lord, B., & Lord, G. D. (Hg.). (2002). *The Manual of Museum Exhibitions*. Walnut Creek: AltaMira Press.
- Lucas, A. (2008). *Öffentliches Wissen. Ausstellungstexte in Wissenschafts- und Technikmuseen*. Augsburg: Rauner.
- Luhmann, N. (1964). *Funktionen und Folgen formaler Organisation*. Berlin: Duncker & Humblot.
- Lumber, R., Richardson, M., & Sheffield, D. (2017). Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLOS ONE*, 12(5), e0177186, <https://doi.org/10.1371/journal.pone.0177186>.

- Lund Declaration (2009a). *The Lund Declaration: Europe must focus on the Grand Challenges of our time*. Lund: Swedish EU Presidency.
- Lund Declaration (2009b). *The Lund Declaration: addendum*. Lund: Swedish EU Presidency.
- Lundgren, R. E., & McMakin, A. H. (2018). *Risk Communication: A Handbook for Communicating Environmental, Safety, and Health Risks* (6. Aufl.). Hoboken: IEE Press/Wiley.
- Lux, A., & Theiler, L. (2019). *Evaluation Zukunftsdialoge. Unveröffentlichter Projektbericht des AP9*. Bio-Kompass. Kommunikation und Partizipation für die gesellschaftliche Transformation zur Bioökonomie. Frankfurt a.M.: Institut für sozial-ökologische Forschung.
- Lynch, B. T. (2011). Custom-made reflective practice: can museums realise their capabilities in helping others realise theirs? *Museum Management and Curatorship*, 26(5), 441–458, <https://doi.org/10.1080/09647775.2011.621731>.
- Lyons, S., & Bosworth, K. (2019). Museums in the Climate Emergency. In R. R. Janes, & R. Sandell (Hg.), *Museum Activism* (S. 174–185). London/New York: Routledge, <https://doi.org/10.4324/9781351251044-17>.
- Maasen, S., & Dickel, S. (2016). Partizipation, Responsivität, Nachhaltigkeit. Zur Realfiktion eines neuen Gesellschaftsvertrags. In D. Simon, A. Knie, S. Hornbostel, & K. Zimmermann (Hg.), *Handbuch Wissenschaftspolitik* (S. 225–242). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-05455-7\\_21](https://doi.org/10.1007/978-3-658-05455-7_21).
- Macdonald, S. (1995). Consuming Science: Public Knowledge and the Dispersed Politics of Reception among Museum Visitors. *Media, Culture & Society*, 17(1), 13–29, <https://doi.org/10.1177/016344395017001002>.
- Macdonald, S. (1996). Authorising science: public understanding of science in museums. In A. Irwin, & B. Wynne (Hg.), *Misunderstanding science? The public reconstruction of science and technology* (S. 152–171). Cambridge: Cambridge University Press, <https://doi.org/10.1017/CBO9780511563737.008>.
- Macdonald, S. (1998a). Exhibitions of power and power of exhibitions. An introduction to the politics of display. In S. Macdonald (Hg.), *The Politics of Display: Museums, Science, Culture* (S. 1–21). London/New York: Routledge.
- Macdonald, S. (Hg.). (1998b). *The Politics of Display: Museums, Science, Culture*. London/New York: Routledge.
- Macdonald, S. (Hg.). (2006). *A Companion to Museum Studies*. Oxford: Blackwell, <https://doi.org/10.1002/9780470996836>.

- Macdonald, S., & Silverstone, R. (1992). Science on display: the representation of scientific controversy in museum exhibitions. *Public Understanding of Science*, 1(1), 69–87, <https://doi.org/10.1088/0963-6625/1/1/010>.
- Marris, C. (2015). The Construction of Imaginaries of the Public as a Threat to Synthetic Biology. *Science as Culture*, 24(1), 83–98, <https://doi.org/10.1080/09505431.2014.986320>.
- Mazda, X. (2004). Dangerous Ground? Public Engagement with Scientific Controversy. In D. Chittenden, G. Farmelo, & B. V. Lewenstein (Hg.), *Creating connections. Museums and the public understanding of current research* (S. 127–144). Walnut Creek: AltaMira Press.
- McCall, V., & Gray, C. (2014). Museums and the ›new museology‹: theory, practice and organisational change. *Museum Management and Curatorship*, 29(1), 19–35, <https://doi.org/10.1080/09647775.2013.869852>.
- McCallie, E., Bell, L., Lohwater, T., Falk, J. H., Lehr, J. L., Lewenstein, B. V., et al. (2009). *Many experts, many audiences: Public engagement with science and informal science education. A CAISE Inquiry Group Report*. Washington D.C.: Center for Advancement of Informal Science Education.
- McCallie, E., Simonsson, E., Gammon, B., Nilsson, K., Lehr, J., & Davies, S. R. (2007). Learning to Generate Dialogue: Theory, Practice, and Evaluation. *Museums & Social Issues*, 2(2), 165–184, <https://doi.org/10.1179/msi.2007.2.2.165>.
- McCarthy, J., & Ciolfi, L. (2008). Place as Dialogue: Understanding and Supporting the Museum Experience. *International Journal of Heritage Studies*, 14(3), 247–267, <https://doi.org/10.1080/13527250801953736>.
- McLean, K. (1999). Museum Exhibitions and the Dynamics of Dialogue. *Daedalus*, 128(3), 83–107.
- Meijer-Van Mensch, L. (2012). Von Zielgruppen zu Communities. Ein Plädoyer für das Museum als Agora einer vielschichtigen Constituent Community. In S. Gesser, M. Handschin, A. Jannelli, & S. Lichtensteiger (Hg.), *Das partizipative Museum. Zwischen Teilhabe und User Generated Content. Neue Anforderungen an kulturhistorische Ausstellungen* (S. 86–94). Bielefeld: transcript Verlag, <https://doi.org/10.1515/transcript.9783839417263.86>.
- Merton, R. K. (1973 [1942]). The Normative Structure of Science. In R. K. Merton (Hg.), *The Sociology of Science. Theoretical and Empirical Investigations. Edited and with an Introduction by Norman W. Storer* (S. 267–278). Chicago/London: The University of Chicago Press.

- Merton, R. K. (1982). *Social Research and the practicing Professions. Edited and with an Introduction by Aaron Rosenblatt and Thomas F. Gieryn*. Cambridge: Abt Books.
- Merzagora, M., & Rodari, P. (2008). Evolving dialogue. *European Network of Science Centres and Museums Newsletter*, 74, 2–3.
- Metcalfe, J. (2019). Comparing science communication theory with practice: An assessment and critique using Australian data. *Public Understanding of Science*, 28(4), 382–400, <https://doi.org/10.1177/0963662518821022>.
- Meuser, M., & Nagel, U. (1991). ExpertInneninterviews – vielfach erprobt, wenig bedacht: ein Beitrag zur qualitativen Methodendiskussion. In D. Garz, & K. Kraimer (Hg.), *Qualitativ-empirische Sozialforschung: Konzepte, Methoden, Analysen* (S. 441–471). Opladen: Westdeutscher Verlag, [https://doi.org/10.1007/978-3-322-97024-4\\_14](https://doi.org/10.1007/978-3-322-97024-4_14).
- Meyer, R. (2017). Bioeconomy strategies: Contexts, visions, guiding implementation principles and resulting debates. *Sustainability*, 9(6), 1031, <https://doi.org/10.3390/su9061031>.
- Miller, S. (2001). Public understanding of science at the crossroads. *Public Understanding of Science*, 10(1), 115–120, <https://doi.org/10.3109/a036859>.
- Moberg, K. R., Aall, C., Dorner, F., Reimerson, E., Ceron, J.-P., Sköld, B., et al. (2019). Mobility, food and housing: responsibility, individual consumption and demand-side policies in European deep decarbonisation pathways. *Energy Efficiency*, 12(2), 497–519, <https://doi.org/10.1007/s12053-018-9708-7>.
- Moser, S. (2010). The Devil is in the Detail: Museum Displays and the Creation of Knowledge. *Museum Anthropology*, 33(1), 22–32, <https://doi.org/10.1111/j.1548-1379.2010.01072.x>.
- Mujtaba, T., Lawrence, M., Oliver, M., & Reiss, M. J. (2018). Learning and engagement through natural history museums. *Studies in Science Education*, 54(1), 41–67, <https://doi.org/10.1080/03057267.2018.1442820>.
- Murawski, M. (2021). *Museums as Agents of Change. A Guide to Becoming a Change-maker*. Lanham/London: Rowman & Littlefield.
- Mygind, L., Hällman, A. K., & Bentsen, P. (2015). Bridging gaps between intentions and realities: a review of participatory exhibition development in museums. *Museum Management and Curatorship*, 30(2), 117–137, <https://doi.org/10.1080/09647775.2015.1022903>.
- Navas Iannini, A. M., & Pedretti, E. G. (2017). Preventing Youth Pregnancy: Dialogue and Deliberation in a Science Museum Exhibit. *Canadian Journal of*

- Science, Mathematics and Technology Education*, 17(4), 271–287, <https://doi.org/10.1080/14926156.2017.1381285>.
- Neidhardt, F. (1993). The public as a communication system. *Public Understanding of Science*, 2(4), 339–350, <https://doi.org/10.1088/0963-6625/2/4/004>.
- Newell, J. (2020). Climate museums: powering action. *Museum Management and Curatorship*, 35(6), 599–617, <https://doi.org/10.1080/09647775.2020.1842236>.
- Newell, J., Robin, L., & Wehner, K. (Hg.). (2016a). *Curating the future. Museums, communities and climate change*. London/New York: Routledge, <https://doi.org/10.4324/9781315620770>.
- Newell, J., Robin, L., & Wehner, K. (2016b). Introduction. In J. Newell, L. Robin, & K. Wehner (Hg.), *Curating the future. Museums, communities and climate change* (S. 1–16). London/New York: Routledge, <https://doi.org/10.4324/9781315620770>.
- Nisbet, M. C., Ho, S. S., Markowiz, E., O'Neill, S., Schäfer, M. S., & Thaker, J. (Hg.). (2018). *The Oxford Encyclopedia of Climate Change Communication*. Oxford: Oxford University Press, <https://doi.org/10.1093/acref/9780190498986.001.0001>.
- Nisbet, M. C., & Scheufele, D. A. (2009). What's next for science communication? Promising directions and lingering distractions. *American Journal of Botany*, 96(10), 1767–1778, <https://doi.org/10.3732/ajb.0900041>.
- Norström, A. V., Cvitanić, C., Löf, M. F., West, S., Wyborn, C., Balvanera, P., et al. (2020). Principles for knowledge co-production in sustainability research. *Nature Sustainability*, 3(3), 182–190, <https://doi.org/10.1038/s41893-019-0448-2>.
- Novacek, M. J. (2008). Engaging the public in biodiversity issues. *Proceedings of the National Academy of Sciences*, 105(suppl.1), 11571–11578, <https://doi.org/10.1073/pnas.0802599105>.
- Nowotny, H., Scott, P., & Gibbons, M. (2004). *Wissenschaft neu denken: Wissen und Öffentlichkeit in einem Zeitalter der Ungewißheit*. Weilerswist: Velbrück Wissenschaft.
- O'Key, D. (2021). Why look at taxidermy animals? Exhibiting, curating and mourning the Sixth Mass Extinction Event. *International Journal of Heritage Studies*, 27(6), 635–653, <https://doi.org/10.1080/13527258.2020.1844276>.
- OECD Organisation for Economic Co-operation and Development (2009). *The bioeconomy to 2030: Designing a policy agenda*. OECD International Futures Report: Organisation for Economic Co-operation and Development.

- Oliveira, G., Dorfman, E., Kramar, N., Mendenhall, C. D., & Heller, N. E. (2020). The Anthropocene in Natural History Museums: A Productive Lens of Engagement. *Curator: The museum journal*, 63(3), 333–351, <https://doi.org/10.1111/cura.12374>.
- Omedes, A., & Páramo, E. (2018). The evolution of natural history museums and science centers. From cabinets to museums to.... In E. Dorfman (Hg.), *The Future of Natural History Museums* (S. 168–183). Abingdon/New York: Routledge, <https://doi.org/10.4324/9781315531892-11>.
- Owen, R., Macnaghten, P., & Stilgoe, J. (2012). Responsible research and innovation: From science in society to science for society, with society. *Science and Public Policy*, 39(6), 751–760, <https://doi.org/10.1093/scipol/scs093>.
- Parmentier, M. (2008). Agora. Die Zukunft des Museums. Leicht modifiziertes Manuskript eines Vortrags auf der Arbeitstagung zu den Studiengängen, die für die Arbeit in Museen qualifizieren, veranstaltet vom Institut für Kunst im Kontext, Universität der Künste Berlin in Verbindung mit der Kulturprojekte Berlin GmbH und ICOM Europe am 16./17. November 2007 an der Universität der Künste in Berlin. *Standbein-Spielbein. Museumspädagogik aktuell*, 81, 34–40.
- Patrick, P. G., & Moormann, A. (2021). Family Interactions with Biodiversity in a Natural History Museum. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 73–93). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_5](https://doi.org/10.1007/978-3-030-74266-9_5).
- Pedretti, E. G. (2002). T. Kuhn Meets T. Rex: Critical Conversations and New Directions in Science Centres and Science Museums. *Studies in Science Education*, 37(1), 1–41, <https://doi.org/10.1080/03057260208560176>.
- Pedretti, E. G. (2004). Perspectives on learning through research on critical issues-based Science Center exhibitions. *Science Education*, 88(S1), 34–47, <https://doi.org/10.1002/sce.20019>.
- Pedretti, E. G., & Navas Iannini, A. M. (2020a). *Controversy in Science Museums: Re-imagining Exhibition Spaces and Practice*. London/New York: Routledge, <https://doi.org/10.4324/9780429507588>.
- Pedretti, E. G., & Navas Iannini, A. M. (2020b). Towards Fourth-Generation Science Museums: Changing Goals, Changing Roles. *Canadian Journal of Science, Mathematics and Technology Education*, 20(4), 700–714, <https://doi.org/10.1007/s42330-020-00128-0>.
- Peters, H. P. (2021). *Beyond the deficit model: Non-paternalistic knowledge communication as responsible concept of mainstream PCST*. Vortrag, 16th Inter-

- national Public Communication of Science and Technology Conference (PCST 2020+1), Aberdeen (virtual conference), 24.-27.05.2021
- Peters, H. P., Lehmkuhl, M., & Fähnrich, B. (2020). Germany. Continuity and change marked by a turbulent history. In T. Gascoigne, B. V. Lewenstein, L. Massarani, B. Schiele, P. Broks, M. Riedlinger, et al. (Hg.), *Communicating Science: A Global Perspective* (S. 317–350). Canberra: ANU Press, <https://doi.org/10.22459/CS.2020>.
- Pezzullo, P. C., & Cox, R. (2021). *Environmental Communication and the Public Sphere* (6. Aufl.). Thousand Oaks/London/New Delhi: SAGE Publications.
- Pfadenhauer, M. (2009). Das Experteninterview. In R. Buber, & H. H. Holzmüller (Hg.), *Qualitative Marktforschung: Konzepte – Methoden – Analysen* (S. 449–461). Wiesbaden: Gabler, [https://doi.org/10.1007/978-3-8349-9441-7\\_28](https://doi.org/10.1007/978-3-8349-9441-7_28).
- Pfau, S. F., Hagens, J. E., Dankbaar, B., & Smits, A. J. M. (2014). Visions of sustainability in bioeconomy research. *Sustainability*, 6(3), 1222–1249, <https://doi.org/10.3390/su6031222>.
- Pielke, R. A. (2007). *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge: Cambridge University Press, <https://doi.org/10.1017/cbo9780511818110>.
- Piontek, A. (2017). *Museum und Partizipation. Theorie und Praxis kooperativer Ausstellungsprojekte und Teiligungsangebote*. Bielefeld: transcript Verlag, <https://doi.org/10.1515/9783839439616>.
- Pohlmann, A., Walz, K., Engels, A., Aykut, S. C., Altstaedt, S., Colell, A., et al. (2021). It's not enough to be right! The climate crisis, power, and the climate movement. *GAIA – Ecological Perspectives for Science and Society*, 30(4), 231–236, <https://doi.org/10.14512/gaia.30.4.5>.
- Priefer, C., Jörissen, J., & Frör, O. (2017). Pathways to Shape the Bioeconomy. *Resources*, 6(1), 10, <https://doi.org/10.3390/resources6010010>.
- Prottas, N. (2022). Museums as Collaboration Zones. *Journal of Museum Education*, 47(3), 297–300, <https://doi.org/10.1080/10598650.2022.2105505>.
- Przyborski, A., & Wohlrab-Sahr, M. (2014). *Qualitative Sozialforschung. Ein Arbeitsbuch* (4. erw. Aufl.). München: Oldenbourg Wissenschaftsverlag, <https://doi.org/10.1524/9783486719550>.
- Rader, K. A., & Cain, V. E. M. (2008). From natural history to science: display and the transformation of American museums of science and nature. *Museum and Society*, 6(2), 152–171, DOI: <https://doi.org/10.29311/mas.v6i2.120>.
- Rader, K. A., & Cain, V. E. M. (2014). *Life on Display: Revolutionizing U.S. Museums of Science and Natural History in the Twentieth Century*. Chicago/London:

- University of Chicago Press, <https://doi.org/10.7208/chicago/9780226079837.001.0001>.
- Ragin, C. C. (1992). Introduction: What Is a Case? In C. C. Ragin, & H. S. Becker (Hg.), *What Is a Case? Exploring the Foundations of Social Inquiry* (S. 1–17). Cambridge: Cambridge University Press.
- Rauchfleisch, A., & Schäfer, M. S. (2018). Structure and Development of Science Communication Research: Co-Citation Analysis of a Developing Field. *Journal of Science Communication*, 17(3), A07, <https://doi.org/10.22323/2.17030207>.
- Raupp, J. (2017). Strategische Wissenschaftskommunikation. In H. Bonfadelli, B. Fähnrich, C. Luthje, J. Milde, M. Rhombert, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 143–163). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_8](https://doi.org/10.1007/978-3-658-12898-2_8).
- Ravelli, L. (2006). *Museum Texts. Communication Frameworks*. London/New York: Routledge, <https://doi.org/10.4324/9780203964187>.
- Rees, M. (2017). Museums as catalysts for change. *Nature Climate Change*, 7(3), 166–167, <https://doi.org/10.1038/nclimate3237>.
- Reich, C., Bell, L., Kollman, E., & Chin, E. (2007). Fostering Civic Dialogue: A New Role for Science Museums? *Museums & Social Issues*, 2(2), 207–220, <https://doi.org/10.1179/msi.2007.2.2.207>.
- Reich, C., Chin, E., & Kunz, E. (2006). Museums as forums. Engaging science center visitors in dialogue with scientists and one another. *Informal Learning Review*, 79, 1–8.
- Reichertz, J. (2016). *Qualitative und interpretative Sozialforschung: Eine Einladung*. Wiesbaden: Springer VS, <https://doi.org/10.1007/978-3-658-13462-4>.
- Rennie, L. J. (2013). The Practice of Science and Technology Communication in Science Museums. In J. Gilbert, K., & S. Stocklmayer (Hg.), *Communication and Engagement with Science and Technology. Issues and Dilemmas. A Reader in Science Communication* (S. 197–211). New York/London: Routledge.
- Rennie, L. J., & Williams, G. F. (2007). Communication about science in a traditional museum: visitors' and staff's perceptions. *Cultural Studies of Science Education*, 1(4), 791–820, <https://doi.org/10.1007/s11422-006-9035-8>.
- Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S. E., Donges, J. F., et al. (2023). Earth beyond six of nine planetary boundaries. *Science Advances*, 9(37), eadh2458, <https://doi.org/10.1126/sciadv.adh2458>.
- Rip, A. (2006). Folk Theories of Nanotechnologists. *Science as Culture*, 15(4), 349–365, <https://doi.org/10.1080/09505430601022676>.

- Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169, <https://doi.org/10.1007/bf01405730>.
- Robin, L., Avango, D., Keogh, L., Möllers, N., & Trischler, H. (2016). Displaying the Anthropocene in and beyond Museums. In J. Newell, L. Robin, & K. Wehner (Hg.), *Curating the future. Museums, communities and climate change* (S. 252–266). London/New York: Routledge, <https://doi.org/10.4324/9781315620770>.
- Rödder, S. (2009). *Wahrhaft sichtbar. Humangenomforscher in der Öffentlichkeit*. Baden-Baden: Nomos Verlagsgesellschaft. <https://doi.org/10.5771/9783845218076>.
- Rödder, S. (2020). Organisation matters: towards an organisational sociology of science communication. *Journal of Communication Management*, 24(3), 169–188, <https://doi.org/10.1108/JCOM-06-2019-0093>.
- Rödder, S., & Pavenstädt, C. N. (2023). ›Unite behind the Science!‹ Climate movements' use of scientific evidence in narratives on socio-ecological futures. *Science and Public Policy*, 50(1), 30–41, <https://doi.org/10.1093/scipol/scac046>.
- Rodegher, S. L., & Freeman, S. V. (2019). Advocacy and activism: A framework for sustainability science in museums. In R. R. Janes, & R. Sandell (Hg.), *Museum Activism* (S. 337–347). London/New York: Routledge, <https://doi.org/10.4324/9781351251044-32>.
- Rothe, D. (2016). Theorien Sozialen Wandels und Gesellschaftlicher Transformationsprozesse in der Politikwissenschaft. In A. Engels, & A. Pohlmann (Hg.), *Klimawandel und nachhaltige Entwicklung: Theoretische Grundlagen zum Verständnis von gesellschaftlichem Wandel und gesellschaftlichen Transformationsprozessen. Literaturstudien aus den Sozial- und Wirtschaftswissenschaften. Global Transformations towards a Low Carbon Society* (Bd. 12) (S. 55–100). Hamburg: Universität Hamburg.
- Ruhrmann, G., & Guenther, L. (2017). Katastrophen- und Risikokommunikation. In H. Bonfadelli, B. Fähnrich, C. Lühje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 297–314). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_16](https://doi.org/10.1007/978-3-658-12898-2_16).
- Sandell, R. (1998). Museums as Agents of Social Inclusion. *Museum Management and Curatorship*, 17(4), 401–418, <https://doi.org/10.1080/09647779800401704>.
- Sandell, R. (2002). Museums and the combating of social inequality: Roles, responsibilities, resistance. In R. Sandell (Hg.), *Museums, Society, Inequality*

- (S. 3–23). Abingdon/New York: Routledge, <https://doi.org/10.4324/9780203167380-8>.
- Sandell, R., & Dodd, J. (2010). Activist practice. In R. Sandell, J. Dodd, & R. Garland-Thomson (Hg.), *Re-Presenting Disability: Activism and Agency in the Museum* (S. 3–22). Abingdon/New York: Routledge.
- Sandholdt, C. T. (2021). Addressing Health in Out-of-School Science Experiences. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 33–52). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_3](https://doi.org/10.1007/978-3-030-74266-9_3).
- Schäfer, M. S., & Bonfadelli, H. (2017). Umwelt- und Klimawandelkommunikation. In H. Bonfadelli, B. Fährlich, C. Lüthje, J. Milde, M. Rhomberg, & M. S. Schäfer (Hg.), *Forschungsfeld Wissenschaftskommunikation* (S. 315–338). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-12898-2\\_17](https://doi.org/10.1007/978-3-658-12898-2_17).
- Schäfer, M. S., Kristiansen, S., & Bonfadelli, H. (2015). Einleitung. In M. S. Schäfer, S. Kristiansen, & H. Bonfadelli (Hg.), *Wissenschaftskommunikation im Wandel* (S. 10–42). Köln: Herbert von Halem Verlag.
- Scheersei, A. (2021). Connecting Museum Visitors to Nature Through Dioramas. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 53–72). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_4](https://doi.org/10.1007/978-3-030-74266-9_4).
- Schiele, B. (2008). Science Museums and Science Centers. In M. Bucchi, & B. Trench (Hg.), *Handbook of Public Communication of Science and Technology* (S. 27–39). London/New York: Routledge.
- Schiele, B. (2014). Science museums and centres. Evolution and contemporary trends. In M. Bucchi, & B. Trench (Hg.), *Routledge Handbook of Public Communication of Science and Technology: Second edition* (S. 40–57). London/New York: Routledge.
- Schneidewind, U. (2013). Transformative Literacy. Gesellschaftliche Veränderungsprozesse verstehen und gestalten. *GAIA – Ecological Perspectives for Science and Society*, 22(2), 82–86, <https://doi.org/10.14512/gaia.22.2.5>.
- Schneidewind, U. (2015). Transformative Wissenschaft – Motor für gute Wissenschaft und lebendige Demokratie. *GAIA – Ecological Perspectives for Science and Society*, 24(2), 88–91, <https://doi.org/10.14512/gaia.24.2.5>.
- Schneidewind, U., & Singer-Brodowski, M. (2014). *Transformative Wissenschaft. Klimawandel im deutschen Wissenschafts- und Hochschulsystem*. Marburg: Metropolis Verlag.

- Schneidewind, U., Singer-Brodowski, M., Augenstein, K., & Stelzer, F. (2016). *Pledge for a transformative Science. Wuppertal Paper* (Bd. 191). Wuppertal: Wuppertal Institut.
- Schütze, F., Meinefeld, W., Springer, W., & Weymann, A. (1980). Grundlagentheoretische Voraussetzungen Methodisch Kontrollierten Fremdverstehens. In Arbeitsgruppe Bielefelder Soziologen (Hg.), *Alltagswissen, Interaktion und gesellschaftliche Wirklichkeit* (S. 433–495). Wiesbaden: VS Verlag für Sozialwissenschaften, [https://doi.org/10.1007/978-3-663-14511-0\\_11](https://doi.org/10.1007/978-3-663-14511-0_11).
- Shinn, T. (2002). The Triple Helix and New Production of Knowledge: Prepackaged Thinking on Science and Technology. *Social Studies of Science*, 32(4), 599–614, <https://doi.org/10.1177/0306312702032004004>.
- Silverman, F., & Bartley, B. (2013). Who is Educating Whom? Two-way Learning in Museum/University Partnerships. *Journal of Museum Education*, 38(2), 154–163, <https://doi.org/10.1080/10598650.2013.11510766>.
- Silverstone, R. (1988). Museums and the media: A theoretical and methodological exploration. *International Journal of Museum Management and Curatorship*, 7(3), 231–241, [https://doi.org/10.1016/0260-4779\(88\)90029-5](https://doi.org/10.1016/0260-4779(88)90029-5).
- Simon, N. (2010). *The participatory museum*. Santa Cruz: Museum 2.0.
- Simon, N. (2016). *The Art of Relevance*. Santa Cruz: Museum 2.0.
- Sinai, S., Caffery, L., & Cosby, A. (2022). The culture of science communication in rural and regional Australia: the role of awe and wonder. *Journal of Science Communication*, 21(6), No1, <https://doi.org/10.22323/2.21060801>.
- Smallman, M., Lock, S. J., & Miller, S. (2020). United Kingdom. The developing relationship between science and society. In T. Gascoigne, B. V. Lewenstein, L. Massarani, B. Schiele, P. Broks, M. Riedlinger, et al. (Hg.), *Communicating Science: A Global Perspective* (S. 931–958). Canberra: ANU Press.
- Smithsonian Institution (1997). *Museums for the New Millennium. A Symposium for the Museum Community. Proceedings of a conference held in commemoration of the Smithsonian's 150th anniversary, 05.-07.09.1996*. Washington D.C.: Center for Museum Studies/American Association of Museums.
- Soga, M., & Gaston, K. J. (2016). Extinction of experience: the loss of human–nature interactions. *Frontiers in Ecology and the Environment*, 14(2), 94–101, <https://doi.org/10.1002/fee.1225>.
- Sommer, M., Rucht, D., Haunss, S., & Zajak, S. (2019). *Fridays for Future. Profil, Entstehung und Perspektiven der Protestbewegung in Deutschland. ipb working paper* (Bd. 2). Berlin: Institut für Protest- und Bewegungsforschung.

- Stam, D. C. (1993). The Informed Muse: The Implications of 'The New Museology' for Museum Practice. *Museum Management and Curatorship*, 12(3), 267–283, <https://doi.org/10.1080/0964779309515365>.
- Stauffacher, M., Flüeler, T., Krütli, P., & Scholz, R. W. (2008). Analytic and Dynamic Approach to Collaboration: A Transdisciplinary Case Study on Sustainable Landscape Development in a Swiss Prealpine Region. *Systemic Practice and Action Research*, 21(6), 409–422, <https://doi.org/10.1007/s11213-008-9107-7>.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855, <https://doi.org/10.1126/science.1259855>.
- Sternfeld, N. (2012). Um die Spielregeln spielen! Partizipation im post-repräsentativen Museum. In S. Gesser, M. Handschin, A. Jannelli, & S. Lichtensteiger (Hg.), *Das partizipative Museum. Zwischen Teilhabe und User Generated Content. Neue Anforderungen an kulturhistorische Ausstellungen* (S. 119–126). Bielefeld: transcript Verlag, <https://doi.org/10.1515/transcript.9783839417263.119>.
- Stichweh, R. (2005). Die vielfältigen Publika der Wissenschaft: Inklusion und Popularisierung. In R. Stichweh (Hg.), *Inklusion und Exklusion. Studien zur Gesellschaftstheorie* (S. 95–111). Bielefeld: transcript Verlag.
- Stocklmayer, S. (2013). Engagement with Science: Models of Science Communication. In J. Gilbert, K., & S. Stocklmayer (Hg.), *Communication and Engagement with Science and Technology. Issues and Dilemmas. A Reader in Science Communication* (S. 19–38). New York/London: Routledge.
- Stoltenberg, U., & Burandt, S. (2014). Bildung für eine nachhaltige Entwicklung. In H. Heinrichs, & G. Michelsen (Hg.), *Nachhaltigkeitswissenschaften* (S. 567–594). Heidelberg: Springer Spektrum, [https://doi.org/10.1007/978-3-642-25112-2\\_17](https://doi.org/10.1007/978-3-642-25112-2_17).
- Strauss, A. L. (1998). *Grundlagen qualitativer Sozialforschung. Datenanalyse und Theoriebildung in der empirischen soziologischen Forschung* (2. Aufl.). Paderborn: Wilhelm Fink Verlag.
- Strauss, A. L., & Corbin, J. (1994). Grounded Theory Methodology – An Overview. In N. K. Denzin, & Y. S. Lincoln (Hg.), *The SAGE Handbook of Qualitative Research* (S. 273–285). Thousand Oaks/London/New Delhi: SAGE.
- Strohschneider, P. (2014). Zur Politik der Transformativen Wissenschaft. In A. Brodocz, D. Herrmann, R. Schmidt, D. Schulz, & J. Schulze Wessel (Hg.),

- Die Verfassung des Politischen. Festschrift für Hans Vorländer* (S. 175–192). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-04784-9\\_10](https://doi.org/10.1007/978-3-658-04784-9_10).
- Strübing, J. (2014). *Grounded Theory. Zur sozialtheoretischen und epistemologischen Fundierung eines pragmatistischen Forschungsstils* (3. überarb. u. erw. Aufl.). Wiesbaden: Springer VS, <https://doi.org/10.1007/978-3-531-19897-2>.
- Strübing, J., Hirschauer, S., Ayaß, R., Krähnke, U., & Scheffer, T. (2018). Gütekriterien qualitativer Sozialforschung. Ein Diskussionsanstoß. *Zeitschrift für Soziologie*, 47(2), 83–100, <https://doi.org/10.1515/zfsoz-2018-1006>.
- Sturgis, P., & Allum, N. (2004). Science in Society: Re-Evaluating the Deficit Model of Public Attitudes. *Public Understanding of Science*, 13(1), 55–74, <https://doi.org/10.1177/0963662504042690>.
- Suarez, A. V., & Tsutsui, N. D. (2004). The Value of Museum Collections for Research and Society. *BioScience*, 54(1), 66–74, [https://doi.org/10.1641/0006-3568\(2004\)054\[0066:Tvomcf\]2.0.Co;2](https://doi.org/10.1641/0006-3568(2004)054[0066:Tvomcf]2.0.Co;2).
- Sulmowski, J. (2018). Eigenverantwortung als neoliberale Regierungstechnologie und/oder emanzipatorische Selbst-Ermächtigung? Über die Vielfalt von Responsibilisierungsweisen in einem sozial-ökologischen Gemeinschaftsprojekt. In A. Henkel, N. Lüdtke, N. Buschmann, & L. Hochmann (Hg.), *Reflexive Responsibilisierung. Verantwortung für nachhaltige Entwicklung*. (S. 331–350). Bielefeld: transcript Verlag, <https://doi.org/10.14361/9783839440667-019>.
- Sundqvist, G., Gasper, D., St.Clair, A. L., Hermansen, E. A. T., Yearley, S., Øvstebø Tvedten, I., et al. (2018). One world or two? Science–policy interactions in the climate field. *Critical Policy Studies*, 12(4), 448–468, <https://doi.org/10.1080/19460171.2017.1374193>.
- Sutton, S. (2020). The evolving responsibility of museum work in the time of climate change. *Museum Management and Curatorship*, 35(6), 618–635, <https://doi.org/10.1080/09647775.2020.1837000>.
- Sutton, S., & Robinson, C. (2020). Museums and Public Climate Action. *Journal of Museum Education*, 45(1), 1–4, <https://doi.org/10.1080/10598650.2020.1722513>.
- Takahashi, B., Metag, J., Thaker, J., & Comfort, S. E. (Hg.). (2021). *The Handbook of International Trends in Environmental Communication*. New York: Routledge, <https://doi.org/10.4324/9780367275204>.
- Taubert, N., & Weingart, P. (2016). Wandel des wissenschaftlichen Publizierens – eine Heuristik zur Analyse rezenter Wandlungsprozesse. In P. Weingart, & N. Taubert (Hg.), *Wissenschaftliches Publizieren. Zwischen Digitalisierung,*

- Leistungsmessung, Ökonomisierung und medialer Beobachtung* (S. 3–38). Berlin/Boston: De Gruyter, <https://doi.org/10.1515/9783110448115-001>.
- te Heesen, A. (2021). *Theorien des Museums zur Einführung*. (4. überarb. Aufl.). Hamburg: Junius Verlag.
- The Royal Society (1985). *The public understanding of science. Report of a Royal Society ad hoc Group endorsed by the Council of the Royal Society*. London: The Royal Society.
- Theiler, L., & Lux, A. (2020). *Evaluation Evolving Lab. Teil A: Evaluationsbericht Ausstellung, Teil B: Evaluationsbericht BioKompass-Woche. Unveröffentlichter Projektbericht des AP9*. Bio-Kompass. Kommunikation und Partizipation für die gesellschaftliche Transformation zur Bioökonomie. Frankfurt a.M.: Institut für sozial-ökologische Forschung.
- Tittor, A. (2021). Towards an Extractivist Bioeconomy? The Risk of Deepening Agrarian Extractivism When Promoting Bioeconomy in Argentina. In M. Backhouse, R. Lehmann, K. Lorenzen, M. Lühmann, J. Puder, F. Rodríguez, et al. (Hg.), *Bioeconomy and Global Inequalities. Socio-Ecological Perspectives on Biomass Sourcing and Production* (S. 309–330). Cham: Palgrave Macmillan, [https://doi.org/10.1007/978-3-030-68944-5\\_15](https://doi.org/10.1007/978-3-030-68944-5_15).
- Trench, B. (2008). Towards an Analytical Framework of Science Communication Models. In D. Cheng, M. Claessens, T. Gascoigne, J. Metcalfe, B. Schiele, & S. Shi (Hg.), *Communicating Science in Social Contexts* (S. 119–133). Dordrecht: Springer.
- Trench, B., & Bucchi, M. (2010). Science communication, an emerging discipline. Comment. *Journal of Science Communication*, 9(3), C03, <https://doi.org/10.22323/2.09030303>.
- Trümper, S., & Beck, M.-L. (2021). Transformative Klimakommunikation: Veränderungsprozesse in Wissenschaft und Gesellschaft anstoßen. *GAIA – Ecological Perspectives for Science and Society*, 30(3), 162–167, <https://doi.org/10.14512/gaia.30.3.7>.
- Tschötschel, R., Schumann, N., Roloff, R., & Brüggemann, M. (2022). Der Klimawandel im öffentlich-rechtlichen Fernsehen. Inhaltsanalyse der »Tagesschau« und des Gesamtprogramms von Das Erste, ZDF und WDR 2007 bis 2022. *Median Perspektiven*, 12, 574–581.
- Tzibazi, V. (2013). Participatory Action Research with young people in museums. *Museum Management and Curatorship*, 28(2), 153–171, <https://doi.org/10.1080/09647775.2013.776800>.

- van Dam, F., de Bakker, L., Dijkstra, A. M., & Jensen, E. A. (Hg.). (2020). *Science Communication. An Introduction*. Singapore: Word Scientific, <https://doi.org/10.1142/11541>.
- Vergo, P. (Hg.). (1989). *New Museology*. London: Reaktion Books.
- Vieregg, H. (2006). *Museumswissenschaften: Eine Einführung*. Paderborn: Wilhelm Fink Verlag, <https://doi.org/10.36198/9783838528236>.
- Vivien, F.-D., Nieddu, M., Béfort, N., Debref, R., & Giampietro, M. (2019). The Hijacking of the Bioeconomy. *Ecological Economics*, 159, 189–197, <https://doi.org/10.1016/j.ecolecon.2019.01.027>.
- Vohland, K., Land-Zandstra, A., Ceccaroni, L., Lemmens, R., Perelló, J., Ponti, M., et al. (Hg.). (2021). *The Science of Citizen Science*. Cham: Springer International Publishing, <https://doi.org/10.1007/978-3-030-58278-4>.
- Wade, S. (2022a). The Art and Craftivism of Exhibiting Species and Habitat Loss in Natural History Museums. *Museum and Society*, 20(1), 131–146, <https://doi.org/10.29311/mas.v20i1.3799>.
- Wade, S. (2022b). Ecologies of Display: Contemporary art, natural history collections and environmental crisis. *Journal of Natural Science Collections*, 10, 94–106.
- Wagenknecht, K., Woods, T., Nold, C., Rüfenacht, S., Voigt-Heucke, W., Caplan, A., et al. (2021). A question of dialogue? Reflections on how citizen science can enhance communication between science and society. *Journal of Science Communication*, 20(3), A13, <https://doi.org/10.22323/2.20030213>.
- Walton, J. (1992). Making the theoretical case. In C. C. Ragin, & H. S. Becker (Hg.), *What Is a Case? Exploring the Foundations of Social Inquiry* (S. 121–137). Cambridge: Cambridge University Press.
- WBGU Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen (2011). *Hauptgutachten: Welt im Wandel, Gesellschaftsvertrag für eine Große Transformation*. Berlin: Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen.
- Weder, F., Krainer, L., & Karmasin, M. (Hg.). (2021). *The Sustainability Communication Reader. A Reflective Compendium*. Wiesbaden: Springer VS, <https://doi.org/10.1007/978-3-658-31883-3>.
- Wehrmann, C., Pentzold, C., Rothe, I., & Bischof, A. (2023). Introduction: Living Labs Under Construction. *Journal of Science Communication*, 22(3), E, <https://doi.org/10.22323/2.22030501>.
- Weil, S. E. (1999). From Being about Something to Being for Somebody: The Ongoing Transformation of the American Museum. *Daedalus*, 128(3), 229–258.

- Weindl, R. (2019). *Die »Aura« des Originals im Museum. Über den Zusammenhang von Authentizität und Besucherinteresse*. Bielefeld: transcript Verlag, <https://doi.org/10.1515/9783839448205>.
- Weingart, P. (2001). *Die Stunde der Wahrheit? Zum Verhältnis der Wissenschaft zu Politik, Wirtschaft und Medien in der Wissensgesellschaft*. Weilerswist: Velbrück Wissenschaft.
- Weingart, P. (2016). Wissenschaftssoziologie. In D. Simon, A. Knie, S. Hornbostel, & K. Zimmermann (Hg.), *Handbuch Wissenschaftspolitik* (2. vollst. bearb. Aufl.) (S. 141–155). Wiesbaden: Springer VS, [https://doi.org/10.1007/978-3-658-05455-7\\_9](https://doi.org/10.1007/978-3-658-05455-7_9).
- Weingart, P., Engels, A., & Pansegrau, P. (2000). Risks of communication: discourses on climate change in science, politics, and the mass media. *Public Understanding of Science*, 9(3), 261–283, <https://doi.org/10.1088/0963-6625/9/3/304>.
- Weingart, P., Pansegrau, P., Rödder, S., & Voß, M. (2009). *Bericht zum Projekt »Vergleichende Analyse Wissenschaftskommunikation«*. Bielefeld: Institut für Wissenschafts- und Technikforschung, Universität Bielefeld.
- Whitley, R. D. (1985). Knowledge Producers and Knowledge Acquirers. Popularisation as a Relation Between Scientific Fields and Their Publics. In T. Shinn, & R. D. Whitley (Hg.), *Expository Science. Forms and Functions of Popularisation* (S. 3–28). Dordrecht: D. Reidel, [https://doi.org/10.1007/978-94-009-5239-3\\_1](https://doi.org/10.1007/978-94-009-5239-3_1).
- Wilkening, S. (2021). *Museums and Trust*. <https://www.aam-us.org/wp-content/uploads/2021/09/Museums-and-Trust-2021.pdf>. Zugegriffen: 12.12.2022.
- Wilsdon, J., & Willis, R. (2004). *See-through science: Why public engagement needs to move upstream. Project Report*. London: Demos.
- Wintzerith, S. (2017). *Besucherforschung im Senckenberg Naturmuseum. Interessant, lehrreich und vielfältig: Zu Besuch bei den Dinosauriern. Erwachsene Besucher (Interner Bericht)*. Karlsruhe: Wintzerith Evaluation für Kultureinrichtungen.
- Wintzerith, S. (2018). *Besucherforschung im Senckenberg Naturmuseum. Was aus MENSCH, ERDE, KOSMOS und ZUKUNFT werden könnte. Erwartungen an das neue Museum (Interner Bericht)*. Karlsruhe: Wintzerith Evaluation für Kultureinrichtungen.
- Wissenschaft im Dialog (2020). *Alle Aktionen rund um 20 Jahre Wissenschaft im Dialog*. <https://www.wissenschaft-im-dialog.de/ueber-uns/20-jahre-wid>. Zugegriffen: 29.01.2021.

- Wissenschaftsrat (2015). *Zum wissenschaftspolitischen Diskurs über Große gesellschaftliche Herausforderungen. Positionspapier*. Stuttgart: Wissenschaftsrat.
- Witcomb, A. (2003). *Re-imagining the Museum. Beyond the Mausoleum*. London/New York: Routledge, <https://doi.org/10.4324/9780203361023>.
- Witzel, A. (2000). Das problemzentrierte Interview. *Forum Qualitative Sozialforschung*, 1(1), 1–7.
- Wynne, B. (1991). Knowledges in Context. *Science, Technology, & Human Values*, 16(1), 111–121, <https://doi.org/10.1177/016224399101600108>.
- Wynne, B. (1995). Public Understanding of Science. In S. Jasanoff, G. E. Markle, J. C. Petersen, & T. Pinch (Hg.), *Handbook of Science and Technology Studies* (S. 361–391). Thousand Oaks/London/New Delhi: SAGE Publications.
- Wynne, B. (2006). Public Engagement as a Means of Restoring Public Trust in Science – Hitting the Notes, but Missing the Music? *Public Health Genomics*, 9(3), 211–220, <https://doi.org/10.1159/000092659>.
- Wynne, B. (2007). Public Participation in Science and Technology: Performing and Obscuring a Political-Conceptual Category Mistake. *East Asian Science, Technology and Science*, 1, 99–110, <https://doi.org/10.1215/s12280-007-9004-7>.
- Yaneva, A., Rabesandratana, T. M., & Greiner, B. (2009). Staging scientific controversies: a gallery test on science museums' interactivity. *Public Understanding of Science*, 18(1), 79–90, <https://doi.org/10.1177/0963662507077512>.
- Yanni, C. (1999). *Nature's Museums: Victorian Science and the Architecture of Display*. Baltimore: Johns Hopkins University Press.
- Yeh, J. H. (2021). Real-World Problem: Connecting Socio-Scientific Contexts and Dioramas. In M. Achiam, J. Dillon, & M. Glackin (Hg.), *Addressing Wicked Problems through Science Education. The Role of Out-of-School Experiences* (S. 95–120). Cham: Springer International Publishing, [https://doi.org/10.1007/978-3-030-74266-9\\_6](https://doi.org/10.1007/978-3-030-74266-9_6).
- Yin, R. K. (1981). The Case Study Crisis: Some Answers. *Administrative Science Quarterly*, 26(1), 58–65, <https://doi.org/10.2307/2392599>.
- Younan, S., & Jenkins, J. (2020). Reality Check: Adding Plastic to Natural History. *Journal of Museum Education*, 45(1), 42–51, <https://doi.org/10.1080/10598650.2020.1724529>.
- Ziegler, R., & Fischer, L. (2020). *Ziele von Wissenschaftskommunikation – Eine Analyse der strategischen Ziele relevanter Akteure für die institutionelle Wissenschaftskommunikation in Deutschland, 2014–2020*. Berlin: Wissenschaft im Dialog.

- Zierhofer, W., & Burger, P. (2007). Disentangling Transdisciplinarity: An Analysis of Knowledge Integration in Problem-Oriented Research. *Science Studies*, 20(1), 51–74, <https://doi.org/10.23987/sts.55219>.
- Ziman, J. (1991). Public Understanding of Science. *Science, Technology, & Human Values*, 16(1), 99–105, <https://doi.org/10.1177/016224399101600106>.

