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Water and/in religious relations:
A Cambridge study

Dr Anastasia R. Badder

About this report

Between July and November 2023, the University of Cambridge carried out research in the local area as part of the 18-month project Water Efficiency in Faith & Diverse Communities. This research was led by Dr Anastasia Badder on behalf of the Cambridge Interfaith Programme (CIP) and funded by the Ofwat Innovation Fund as part of a collaboration with Cambridge Water, South Staffordshire Water, other water industry actors and ecological organisations.

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This research would not have been possible without the support and input of wonderful interlocutors, colleagues, water industry collaborators, and funders.

Thank you first to all interlocutors to this project. I am so grateful for the generous welcome you extended to me and to this research. Your time, knowledge, and reflections have allowed this text to be as rich as it is. I hope that I have done justice to your ideas, and I look forward to continuing our conversations about water and beyond into the future.

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Finally, to Ofwat, thank you for recognising the crucial role that religion could play in moving hearts and minds to take on sustainability and address climate change in new ways and for funding this work.

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Aids for the reader

We have provided a **glossary** to explain some technical terms. Such terms are normally highlighted where they appear in the main text. **Aquifer**, **mikvah**, and **wudu**, for example.

Words spoken by research interlocutors are formatted so that they can be easily distinguished from the researcher's commentary. "Here is an example."

Within the discussion, summaries are normally enclosed in a shaded blue box like this one.

Executive Summary

Many people from Cambridge's faith communities are engaged in environmental activism and sustainability initiatives and would value support with their efforts. Across four months of fieldwork, including focus groups, interviews, and workshops, we found that there was significant mistrust about the motives of the water industry in opening this kind of dialogue. At the same time, our interlocutors often became intrigued and found themselves reflecting in novel ways on how belief might impact their approach to water use. This report offers guidance on how different stakeholders—most particularly water industry actors—might interact productively with faith communities, and—as importantly—some missteps to avoid.

While the fieldwork reported here was necessarily geographically focused and reflects the particularities of those who entered into these time-limited conversations, we believe that the findings can be of wider relevance, both as fresh knowledge for the partners who commissioned our research and as a starting point for a sustained exploration of the intersections between faith and climate change.

The Research Process

The research process began with a review of existing anthropological literature around intersections of religion and ecology with a specific focus on water and water sustainability. A fieldwork phase followed, incorporating interviews, participant observation, and workshops intended to invite explicit discussions around sustainability conducted across segments of Cambridge-based Jewish and Muslim communities.

Initial findings were shared with different project stakeholders, and responses invited from other religious traditions, feeding into the final report.

In addition to the research phase, the Cambridge Interfaith Programme will also organise an academic conference (Being with Water Otherwise) in April 2024. Key knowledge from that event will be shared with stakeholders in the Ofwat project, to ensure the continued flow of insight between academic and practical domains.

Findings

Religious ecologies are a timely and fruitful area of research. Diverse scholars are at work in this domain, using a range of theoretical approaches and spanning very different regional contexts, as demonstrated in the literature review. In particular, scholarship suggests that religious ways of being, and sacred knowledges might offer ways "to think water otherwise" (HadžiMuhamedović 2023).

In exchanges with interlocutors there were nuanced and highly varied ideas about meanings of, and relations with, water. Notably, within and across Cambridge Muslim and Jewish communities there was great diversity in the ways individuals understood and engaged with water, the multiplex waters with which they engaged, the meanings of those waters, the varied and changeable emergent working arrangements between water and other things, ideas, and entities, and the modes of agency afforded water and afforded in relation to water.

From the research conversations, we identified 14 themes that appeared most frequently in conversations and/or were highlighted by interlocutors as the most important or relevant topics. These are:

1. Water in ritual
2. The powers of water
3. Water mandates
4. Water and/in text
5. Festival waters
6. Inspired and inspiring ecologies
7. Food and cooking

8. Institutional procedures
9. Understanding water
10. Trust, scepticism, and suspicion
11. Seeing is believing
12. What is religious?
13. Unexpected (dis)connections
14. Language matters

While in every category we observed great diversity of meanings and relations, several cross-cutting points became visible beyond these topics: People are aware that there are pressing water-related problems, including pollution, shortage, lack of care, and drought. People agree that there should be greater care for water and water sources, and many are already involved in initiatives and/or practices that aim at greater care, from small-scale actions at home to supporting environmental education within their communities to participation in wider water sustainability initiatives and organisations. People are sceptical of the motivations, actions, and outcomes of water company interventions, both in terms of their communities and for water more broadly.

Summary recommendations

For the water industry

Based on the research findings, we offer four recommendations for actors within the water industry, especially water suppliers.

1. **Learn.** When seeking to engage communities characterised by "religion" or "faith", industry actors have a responsibility to consider and enhance their own religious literacy.
2. **Be reflexive.** Further reflection about who or what is "religious" and/or "cultural" and the work these terms do in industry discourse is needed to avoid othering and marginalising so-called "faith and diverse" water users.
3. **Avoid generalising.** It is important that water companies are aware of and account for diversity within religious communities, if the aim is to produce and implement meaningful sustainability initiatives.
4. **Listen.** Listening is crucial—companies should aim to listen to, take seriously, and learn from users, rather than telling "them" where "they" are failing and what "they" must do.

For all stakeholders

Noting that water is a common resource necessary to all life forms, we also offer an additional recommendation to all stakeholders interested in influencing action at the interface of water, religion, and climate change.

Water and/in religious relations

5. **Collaborate.** Water sustainability initiatives should be first and foremost collaborative—those who are most immediately impacted by water interests and issues should be at the centre of the design process.

For researchers, educators, and funders

We also offer two recommendations for those with expertise in the domains of religion and education, or who have the possibility to advance research and engagement (including through the allocation of research funding):

6. **Contribute.** Consider the possibilities and opportunities to design and implement industry-appropriate religious literacy training.
7. **Continue.** This report has identified further opportunities for meaningful research around the intersection of religious communities and water use.

Following these recommendations has the potential to support meaningful relations with water and strengthen water sustainability initiatives. Done well, it may also help to resolve the existing lack of trust in water industry actors that has arisen as a result of factors including the prevalence of water-related crises in the news, the for-profit, private nature of water companies, and the tendency to construe a "problem" in terms of communities that are "hard to reach".

(A more elaborate account of these recommendations is provided on pages 28–29, below.)

Introduction

Between July and November 2023, the University of Cambridge carried out research in the local area as part of the 18-month project Water Efficiency in Faith & Diverse Communities. This research was led by Dr Anastasia Badder on behalf of the Cambridge Interfaith Programme and funded by the Ofwat Innovation Fund as part of a collaboration with Cambridge Water, South Staffordshire Water, other water industry actors and ecological organisations.

At the outset, water industry partners wished to learn about how religious communities in Cambridge use and value water, and learn about community needs in terms of water and sustainability. The approach taken to the research also reflects the Cambridge Interfaith Programme's concern about how best to bring religion into dialogue with current polycrises (including water shortage and drought), with attention to the potential of religious ways of being to relate to water 'otherwise'. The ultimate goal of this work has been to explore new possibilities for water conservation and sustainability practices that are inspired by and/or speak to religious ways of being.

While our water industry partners are curious to learn about different religious traditions, for practical reasons it was necessary to focus the fieldwork more specifically. Choosing to engage primarily with interlocutors from Muslim and Jewish communities, CIP sought to balance depth of insight with opportunity for comparison.

The University's work began with a review of relevant scholarly literature.

Literature Review

Existing research on the intersections of the environment, sustainability, and religion across the humanities and social sciences is vast and wide-ranging. This literature review focuses on anthropological texts that specifically highlight water. Some suggestions for further reading, with reference to articulations of religion and ecology more generally, are provided in the **Further Reading** section at the end of this report.

Though a relatively recent topic in anthropology, water is a rapidly-growing area of focus. This emerging body of work explores diverse questions, contexts, and temporalities of water and engages a variety of approaches. Some scholars illustrate the ways in which religion and religious values, practices, and identities are intricately intertwined with water as a substance, water as an actor, living entity, and relative (Wilson & Inkster 2018; Yazzie & Baldy 2018). Other texts explore specific bodies of water as beings with which humans engage and which facilitate meetings between human and non-human beings (Todd 2014). Some examine how water acts as a mediator between religious and other aims and efforts, such as nationalist or agricultural (Alatout 2008; Lansing 1987). Taking up the affordances of water, some scholars investigate water and its fluid movement as foundational for religious ways of knowing (Amimoto Ingersoll 2016).

Other literature explores the ways in which sacred waters become entangled in contemporary conflicts, environmental movements, and major social changes and how those waters, their relations, and affordances may change in the process (Alley 2002; Anand 2017). Relatedly, some scholars investigate how water – and water pollutants – are

negotiated across religious and other realms (de Châtel 2014). Some texts zoom in on the ways in which the same body of water can occupy multiple positions and allow for different engagements depending on who or what is working alongside it (Oestigaard and Firew 2013).

Together, these varied texts do three key things.

First, they do not take water as a material entity, substance, or site of interconnectivity (Schmidt 2019) at face value. Instead, they acknowledge the many waters, properties, natures, characteristics, and affordances of different waters and, equally, the roles water plays in other social constructions. Some indeed reconsider the substance of water, turning their attention to the places in which water is made and materialized in dense, shifting networks of relations (Khan 2016). Others question to what extent we can take nature itself as obvious and call for a rethinking of existing distinctions between nature and culture in order to better understand what water is, does, and affords (Surrallés 2017). Many others explore the process by which humans, water, and possible agencies are mutually constituted, rather than taking them as preexisting entities entirely external to each other (Bernard 2013).

Second, they push back against the financialization of water. In other fields, such as economics and sustainable development, the focus tends to revolve around the (economic) value of water with the assumption that improved pricing will help to regulate demand, change behaviours, and overall enhance the valuation of water. In doing so, these analyses and the actors they describe not only seek to extract value from water, but determine the conditions for and landscape of water valuation. Even those that hope to frame water as a human right transform water into an "affordable" human right that can be measured by and equated with the price of a water bill (Ballestero 2019; Ballestero et al. 2023). In contrast, anthropological investigations into articulations of water and religious lives illustrate alternative modes of valuation, other possible relations with water beyond the primarily economic, and ways of accounting that go beyond prevalent pricing logics (Rodríguez 2006; Salmond 2017; Strang 2005).

And third, scholars in this vein take seriously the possibility that religious ways of being and relating with water not only exist but might hold lessons for those beyond the specific traditions in question. They call our attention not only to alternative relations, but also the ways in which these undermine common models of unlimited growth and development, economy, and use and utility. Indeed, this literature shows how some religious communities are already drawing on their ways of thinking and relating to water as part of political struggles and sustainability actions (Salmond 2014; Strang 2014).

Critically, in acknowledging the many different ways in which water acts, is acted on, and becomes enmeshed in religious, social, and political processes, these scholars do not seek to dismiss pressing concerns about water or deny the existence of water (or climate) crises (Fontein 2008). Instead, by acknowledging the nuanced languages, practices, and relations of water in religious lives, they aim to deepen our understanding of water *as it is lived* (Wilson et al. 2019).

The Research Process

This project was instigated by Cambridge Water and South Staffordshire Water. The initial plan as presented by these water industry actors was to conduct research with diverse communities including Muslim, Hindu, Sikh, and Buddhist groups. To ensure a meaningful depth of engagement, the University of Cambridge researchers opted for an ethnographic approach and focused more narrowly on Jewish and Muslim communities in the Cambridge area. This decision allowed for comparison (as communities with known internal diversity), while ensuring results could be reported in accordance with the wider project timeline.

Data gathering

19 conversations   **4** meetings

7 organisations   **12** events   **4** workshops

We sought to speak with representatives and members of 11 Jewish and Muslim organisations in the area and were ultimately able to get in touch with people involved with 7 of those organisations, as well as other unforeseen groups and communities. The fieldwork period included 19 interviews and/or "instrumental conversations" (Madden 2010),[1] participation in 12 key events, 4 project meetings, and 4 workshops sharing initial findings for feedback.

Events attended included a variety of holiday celebrations, religious services, and sustainability-focused events. The lead researcher also took part in religious study evenings, organised walks, community social events, and Scriptural Reasoning sessions.

Interlocutors were associated with 2 synagogues, 1 international Jewish movement, 1 local mosque, 1 local Muslim educational institution, 1 Muslim scouting movement, 2 religious student societies, and 1 university. Some interlocutors were not affiliated with any formal religious organisation but lived locally, participated in specific religious events, and identified as members of the Jewish or Muslim community broadly. Beyond their religious identifications, some interlocutors also took part in a range of local climate action or water sustainability initiatives.

Additionally, in the course of the research, we spoke with and/or received feedback about the project and its findings from members of other religious communities, including

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[1] Formal interviews generally followed one of the interview schedules in Appendix A, while "instrumental conversations" (which Madden describes as conversations with acknowledged specific aims for one or more involved parties) were informed by those interview schedules but focused on specific topics depending on the interlocutor involved, their role in the community, and their particular point of interest in or relation to the project.

members of Hindu, Muslim, Buddhist, Sikh, Christian, and Pagan communities and climate action groups. Their input is reflected below in the section **Potential for Future Research**.

As a principle of ethnography, the research also regarded water industry actors involved in the steering committee—including representatives of other regional water companies and water sustainability initiatives—as interlocutors to this project. Two of the formal interviews were with water company actors.

Gaps for further attention

Though we were able to engage a wide range of interlocutors, there are three notable gaps in this research that should be addressed in further work:

First, interviews and instrumental conversations were conducted primarily with people in leadership roles (whether religious leaders, community leaders, or leaders of climate action or sustainability initiatives). While informal conversations at the various events involved lay community members, it would be beneficial to create more dedicated time and space for exchange with community members who are not in leadership roles.

Second, most interviews and instrumental conversations were with men. As both religions can be highly gendered in their practices, meanings, and material forms, it is critical to create more dedicated time and space to hear from women.

Finally, most conversations were with adults and older adults, due in part to ethical limitations concerning the involvement of younger interlocutors. This is an important area to address as many adults reported that, in their experience, young people and children are especially interested and involved in climate awareness and action.

It also important to acknowledge that due to unexpected geopolitical events, this research was briefly disrupted as other concerns took precedence for many interlocutors.

The analysis

Initial thematic analysis[2] was carried out by the lead researcher (Dr Anastasia Badder), who has also written this report. That analysis yielded 13 of the 14 themes discussed in the main body of this report.

At the conclusion of the main fieldwork period, findings from the initial analysis were shared at a series of four workshops with different project stakeholders. Three sessions were planned to coincide with UK Inter Faith Week (12–19 November 2023).

The first workshop took place at a local mosque where participants were invited to build the water cycle, to consider what water industry actors *want* to know and reflect on what they rather *need* to know, and to offer their thoughts on existing and potential future sustainability practices. Participants included members of the mosque, a religious leader from the mosque, and a water company representative.

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[2] Thematic analysis refers to an iterative process of analysing and theorising in which the researcher moves between data collection, analysis, and literature and existing theory. It is used to identify and interpret "patterns of meaning" – themes – in qualitative data (Braun & Clarke 2017; see also Clarke & Braun 2013). This method allows for theoretical flexibility, meaning that it can be applied across a range of research paradigms, research questions, types of data, and for the production of data-driven or theory-driven analysis.

The second workshop took place at the University of Cambridge where participants were invited to read and discuss select pieces of data from the project, and then to share whether of the data discussed resonated with their own experiences. Participants included university staff and a representative from a national interfaith initiative.

The third workshop took place at the University of Cambridge, where the lead researcher presented a summary of all findings to date and invited questions and feedback. Additionally, participants from other religious traditions were specifically invited to respond and/or to share their insights on the intersections of religion, water, and sustainability.

The final workshop was an internal workshop held at the University of Cambridge where other researchers working at the intersections of climate, sustainability, and religion were invited to hear the summary of the project findings, pose questions and offer feedback, and discuss potential further work.

Responses from all four workshops fed into this report. The exchange with University colleagues also prompted the elaboration of a further theme. This report's **Thematic Discussion** (below) treats each theme in turn, incorporating summative reflections on each.

Further work at Cambridge

In addition to the research phase, the Cambridge Interfaith Programme will also organise an academic conference (Being with Water *Otherwise*) in April 2024. Key knowledge from that event will be shared with stakeholders in the Ofwat project, to ensure the continued flow of insight between academic and practical domains.

A note about terminology

Throughout this report, the term **interlocutor** is used to describe those who spoke or interacted with the lead researcher. This is a standard term in ethnography, and it is preferred to alternatives (participant, discussant, subject), because it foregrounds the "inter-" active nature of the exchange, and the role of interlocutors as co-producers of knowledge and, ideally, as co-researchers and co-theorizers.

Anthropologists continue to discuss whether and to what extent terminology impacts our writing conventions, shifts relations of power, or alters who is recognized as a legitimate producer of explanation and theory. We cannot resolve these debates here. By using the term interlocutor, we signal the aim to think about water, ecologies, and religious life "*with* others as subjects, rather than objects of (our) knowledge" (Weiss 2021: 949).

Thematic Discussion: Water in/and Religion

Preface

As a preface to the following discussion of themes, this report asks readers to keep five points in mind:

First, while the ways of being the *Water and Efficiency in Faith and Diverse Communities* sought to understand and many of the ideologies and practices depicted in this report have been described as religious, it is important to remember that the religious and the secular are not obvious or natural categories (as project interlocutors themselves remind us). Indeed, drawing a fixed distinction between religious and secular approaches to water may do little to advance our understandings of the ways water acts and is acted on discursively and materially.

Second, relations to water and water*s* are complex, polyvocal, and multimodal, and prone to change across time and context. Any interpretation or linear narrative that offers a neat story or clear-cut relation is most likely oversimplified and unlikely to meaningful and/or effective in the ways we might desire it to be.

Third, the account of findings that follows should not be read as simply about a/several discrete religious community/ies. Rather, it brings together particular knowledges, matters of concern (Latour 2004), and practices (religious and otherwise) involved in crafting and living relations with and around water, water sustainability, water systems, water histories, and water management and companies.

Fourth, while it is generally accepted that water is crucial to life, human and non-human, the ways water*s* appear, act on others and are acted upon, the relations in which they are implicated, are historically, culturally, and contextually contingent. This is as clear in debates about the purifying potential of specific waters as it is in debates about sustainability, responsibility, and crisis.

Finally, and relatedly, the crisis of water is equally a lived experience: Water that appears to be readily available or to exhibit "normal" variability in quality and/or quantity can suddenly appear as a matter of urgency and crisis in a novel context or following the introduction of a new element, actor, or event, into water relations.

Water in ritual

Judaism and Islam include a variety of ritual practices that revolve around or involve water. In conversations, interviews, and workshops interlocutors identified a wide range of ritual uses of water and/or ritual practices involving the use or presence of water. Within the Jewish community, the most frequently named rituals were handwashing and **mikvah** immersion.

Handwashing and *mikvah* bathing

As many Jewish interlocutors explained, ritual handwashing takes place at specific moments and/or in relation to specific activities. Most interlocutors pointed to handwashing

before consuming a meal with bread. This would involve filling a pitcher of water (which might range from a finely decorated piece to a simple plastic jug) and pouring water two or three times (depending on one's denomination, background, habit, and preference) over first the right hand up to the wrist and then the left (if one is right-handed). Some interlocutors noted that one should be generous when pouring water over each hand. However, based on observations at several events, what counted as generous varied greatly: in practice, when hand-washers lined up at the sink, many simply splashed each hand and left water in the jug for the person behind them.

After washing, some said to themselves (or aloud) the blessing **Netilat Yadayim,** some dried their hands on a towel while others allowed them to air dry, some maintained silence until sitting back down and hearing or collectively reciting the blessing over the bread. Notably, despite one interlocutor's assessment that "even sceptics were happy to wash their hands, no one is saying 'my move to modernity is such that I won't wash my hands'", at many events, there were some (and sometimes a majority) who did not (ritually) wash their hands at all.

In contrast, while nearly all Jewish interlocutors pointed to immersion in the **mikvah** as a key ritual involving water, very few regularly, if ever, took up this practice themselves. For some, this was due to a traumatic experience early in life; for others, it simply was not meaningful to them, nor part of their tradition nor heritage (meaning that their own mothers did not do it). That said, for some, the **mikvah** was, as one interlocutor described it, "fundamental to the function of Jewish life".

From community members, I learned that Cambridge did not always have a **mikvah**. Before it did, people who needed access to a **mikvah**, whether for regular use, for conversion, or to cleanse dishes and utensils for use in a kosher kitchen, either traveled to London or, on rare occasion, immersed themselves and/or their cookware in the River Cam.

Unlike water for ritual handwashing, the water in a **mikvah** must be collected from a natural source. And, as one interlocutor explained, there are detailed requirements for the construction and contents of **mikvaot** and the legality of novel heating and filtration systems have been much debated. Some interlocutors posited that those requirements meant that the Cambridge **mikvah** was already "efficient" because "the tub isn't constantly refilled – it's recycled, filtered, heated". Rather than looking for ways to make the **mikvah** more efficient, they suggested they could "use some support for the upkeep" of its machinery.

Ablutions, or *Wudu*

The Cambridge Muslim community exhibited a similar range of knowledges, meanings, and practices around ritual uses of water. All Muslim interlocutors indicated **wudu** (**ablutions**) as the most regular and, for many, most important ritual use of water. Everyone I spoke to agreed that it was important to perform those **ablutions** – washing the hands, feet, head, and mouth – but the details of that process, why it is done, and according to which authority varied.

For instance, waiting in the **ablutions** area of a local mosque before Friday prayers one afternoon, I noticed some women removed their hair coverings entirely to wash their heads, while others carefully folded them back. Some women, as my guide that day pointed out, went directly in for prayers, without stopping in the washroom. They had likely performed **ablutions** at home before coming to the mosque. Though there were some situations that could necessitate a re-doing of **ablutions**, it was generally accepted and even preferable to

complete ablutions at home – doing so allowed one to put on makeup after washing or simply avoid the crowd in the washroom before Friday services.

Some interlocutors explained that **ablutions** were a matter of purity and preparation but were not sure why or from where this practice came, while others pointed to scriptural sources and scholarly debates about the practice. For instance, one interlocutor explained that one could "wash the feet or wipe on the socks"; the latter, he posited, might save water. However, while his community accepted the principle of being able to wipe one's socks, there was some discussion as to whether this concerned "modern socks or . . . a kind of thicker leather socks that used to be worn". Generally, he felt, "people do whatever they feel comfortable with . . . I wipe on my normal socks, and I've done that for ages".

Critically, despite the wide-ranging practices and meanings around water-based rituals in both communities, for those who regularly observed these, ritual correctness far outweighed sustainability considerations. That said, the precise nature of ritual correctness varied. For instance, continuing his description of the debates around socks, this interlocutor explained:

> Technically, it reduces water a bit. But it wouldn't be something we would do to say [that everyone had to do this]. That would be something that's basically meritorious in the religion, so we wouldn't restrict that as the wiping is a dispensation you can use for practical purposes or if you want to.

In other words, while most if not all members of his community accepted wiping on the socks for "practical purposes", it could not be mandated as there was no legal ground, as far as he could see, to do so. Similarly, another community member noted that in some cases dry **ablutions** are acceptable.

> And if you really, really don't have water, you don't have water, you can do dry ablution with dust or sand. Almost like a virtual **ablution**. It's already kind of devotional, the dry ablution is keeping a sense of, it's **G-d** that makes us pure. It keeps the sense that something from the earth can do it or even just touching a stone, just something from the earth. Because of the requirements [to allow dry ablution], you genuinely need to be out of water and not be able to find any. So that doesn't really happen in the UK. It might happen somewhere else. In the UK, even if your water stops you can go out and get a bottle of water or go to a neighbour. So, it's something we're aware of but not something we really implement.

He argued, in other words, that dry ablutions were acceptable in certain circumstances but, like sock wiping, could not be mandated because those circumstances were not met. In contrast, another interlocutor suggested that if the water situation became dire, it might be necessary to issue a **fatwa** about ritual purity. This, he felt, would be acceptable even if there was some water available, because in such an extreme situation it would be crucial to protect remaining water resources for life-supporting purposes and the emphasis would move to avoiding the overuse water.

Overall, while all who regularly observed water-related ritual practice agreed that ritual correctness was paramount, what exactly constituted correctness varied. In that variation, some saw openings for sustainability considerations and valued sustainability such that they would be comfortable making adjustments to their practices and even requiring others to do the same, so

long as they were in line with ritual requirements as they understood them. Openness to such adjustments thus depended largely upon interpretations of ritual requirements, negotiations of necessity, and relations between different modes and materialities of needs.

The powers of water

As hinted at in discussions and debates about the ritual use of water in the previous section, in both Islam and Judaism, there is a distinction between ritual cleanliness and keeping clean in a hygienic sense and the waters that are able of enabling and achieving those.

As one Jewish interlocutor explained:

> Historically, people have said Jews washed their hands, so they didn't get all these plagues and all that, but there's not really evidence for this plus washing with water isn't about cleaning away germs. It's about ritual purity, about cleanliness. You're supposed to already have clean hands when you do it. . . there isn't anything actually happening in terms of material cleanliness, you're hoping to go from impure to pure.

Muslim interlocutors called up similar language to describe the process of performing **ablutions** before prayers. In fact, for many people I spoke to, **wudu** and prayer worked together to achieve purification. As one community member described this connection:

> Prayer is spiritual purification but it isn't complete without physical purification. That's what **wudu** is for – it's a process of purification, to make oneself as clean as possible. You wash your hands, feet, and wipe your head before prayers. So, water is sacred in that the human soul and body is sacred and we need water to live but it's also crucial in this purification sense.

Others were even more explicit, explaining that "a clean outside helps keep our heart clean".

Multiple waters

In both communities, multiple waters were circulating: there was water used for hygiene-related cleaning, water used for some rituals that had no specific qualities on its own but acted alongside certain texts, words, and other objects, and water in which inhered a purifying character around which much debate, care, and attention needed to be taken.

Different waters could do different things and sat (or flowed) in different relations with other things. Some acted as powerful mediators between internal states and external practices. Those waters, made ritually active through specific working arrangements with other materials and objects, places, temporalities, intentions, texts, and people, were crucial in achieving desired internal states. Some waters could even help change the character of a whole town, diffusing purity and/or holiness across the landscape. As one interlocutor explained: "coming to a place like Cambridge, which is a Christian town, there's a sense of achievement in doing a **mitzvah** . . . A town with a **mikvah** is already a holier town".

If we accept that material affordances and the ability to produce effects emerges through "complex interinvolvement", changing one component of a given watery assemblage may alter the set of relations that exist between the remaining parts and thus their ability to act (Bennett 2015: 88). This links to issues around ritual correctness and would be critical to keep in mind when thinking about sustainability interventions.

Overall, as with ritual practices, there was significant diversity across adherents to both traditions and the details of what constitutes different waters and what certain waters afford has been and/or continues to evolve and be debated. It is also important to note that ritual purity holds different meanings and is acted on in different ways (or not at all) by individuals according to their denomination, interpretations, habits, experiences, and orientations.

Interlocutors' associations with ritual purity and its practices ranged widely: Some held traumatic links to the concept, others found it deeply meaningful. And still others did not know much about it nor felt it had much bearing on their lives—even if they engaged in some of its associated practices and/or with waters that are typically purifying.

Water mandates

Judaism and Islam both feature a range of regulations related to water and other environmental elements. Interlocutors evoked a variety of commandments, mandates, and moral and ethical actions drawing from different textual and leadership sources. For instance, Muslim interlocutors pointed to a mandate against wasting water and humanity's role as stewards of the earth. Many directly referenced the Prophet Muhammed (**PBH**) who "used very little water" and a **Hadith** against wasting water "even if you were at a running stream".

Similarly, Jewish community members noted a prohibition against wasting resources, as well as highly specific actions, such as practicing agriculture on a seven-year cycle in which the seventh year (**shmita**) is the "Sabbath of the land" during which farmlands must be given a break. Anything that grows there during the year is considered communal property (along with other kinds of resetting).

Some pointed to required attitudes and orientations. For instance, one speaker explained that his and his community's work to inhabit their role as stewards of the earth is motivated by a drive to possess the correct gratefulness towards **G-d**:

> But long-term, it's not, our **Sheikh** would say like, we don't do this to save money. Not money. It's basically an act of gratitude. That's what we call it. It's an act of real and deep gratitude towards God Almighty for providing such beautiful source in the first. To us to exist.
>
> So when we misplace something like that, misuse it or excess in it, like extravagance. Then we basically don't care. Yeah. And, and that, you know, being like careless is actually you're being heedless. And yeah. Inconsiderate towards God. Yeah. For what he gave. And that can't work well with religion or your purification of your soul. So this is how we basically link it . . . If you think deeply about it why we are not allowed to waste this and that. Because that means we are being ungrateful. Yeah.

Water and/in religious relations

> So then they say really, like, you know, you can tell people are paused and contemplating. And that's when it's, you know, stays with them.

Overall, much as the above interlocutor did, many people negotiated their orientations and relations to water within and through authoritative knowledge actors and systems, including religious texts and leaders. Many referred to scriptures, commandments / **mitzvot**, key religious figures who one should seek to emulate, and contemporary leaders locally and elsewhere.

However, there was not necessarily a linear connection between religious mandate and action. The ways in which people attempted to live those mandates reflected a diverse range of negotiations. This is not to say that the authority of religious leaders and other sources is not accepted or that leaders struggle to legitimate their authority within their communities. Rather, this recognizes the complex ways in which individuals – even those for whom submission to religious rules and rulings is meaningful – must figure out how to take up those mandates in their everyday lives.

For instance, for some interlocutors, a prohibition against wasting resources led them to be deeply committed to recycling though they could not be certain "what they [recycling industry actors] really do with all those boxes and bottles". For some, it meant no longer using paper cups and plates and installing an eco-friendly dishwasher as they moved to reusable dinnerware. For others, the mandate to "tread the earth humbly and use only what one needs" did not require maintaining a vegan lifestyle but did require taking climate into consideration when planting one's garden.

Some interlocutors acknowledged mandates related to water and other environmental actions and concerns but did not necessarily see all of these as having any bearing on their lives. They thus needed to determine which were relevant and then how to live those. And some were not aware of many or any such mandates – though they might still take sustainable actions in their everyday lives.

Overall, the process of living out religious mandates related to water and the environment was a creative praxis involving multiple actors, ideas, and materials. Figuring out how to live those mandates was done in concert with leaders and other mediators of authoritative knowledge, as well as family, fellow community members, friends, acquaintances, and other secular sources of authority (such as climate science literature).

Putting those ideas into practice involved determining what was possible, practical, required, and meaningful, working out the relationship between personal decisions (such as whether to recycle or eat vegan) and mandates from agents of authoritative knowledge, and making sense of the link between one's individual actions and the "bigger [environmental] picture".

While religious individuals are often perceived as submissive, directly carrying out religious mandates from recognized sources of authority, it is crucial that we grasp the complex and nuanced ways in which adherents of different traditions negotiate religious mandates in their everyday actions and decisions.

Water and/in text

Texts in both traditions feature stories about or involving water, descriptions of water and other environmental features, and water as metaphor. Many interlocutors noted a range of stories that revolved around water, such as Noah's ark and the

flood covering the whole world or Honi the Circle-Maker and his demand for rain in Jewish texts, or hadiths about providing water for the thirsty in Islamic texts.

Some interlocutors suggested that while these stories were present, it was the practical rules and regulations related to water that were more significant. One individual even drew a comparison between what he interpreted as the immediate, action-oriented environmental narratives in Jewish and Muslim texts with the eschatological orientation of Christian texts:

> If we really look at religious texts and histories, Jewish and Muslim traditions have lots of distinct information about how to look after plants, animals, and so on. In the **Torah** and **Talmud**, for example, we see provisions for **shmita**, we see lines like "and the animals too". And it's very practical – these are direct calls to do something in the world we live in.
>
> But in primary Christian texts, there's not really a case of instructions about how to look after the world. We might even say, interpreting Christian texts, that the turn to **G-d**, to a direct relationship with **G-d** is a turn away from nature. So, it becomes difficult to say that Christianity has a long tradition of ecology and that.
>
> When the pope wants to talk about ecology, he invokes Saint Francis, but that's about someone talking to birds, or he calls up the Hebrew bible. When we see lines about "look at the lilies", the call is not to consider the lilies, let's look after them, it's a beyond-worldly call. Even monasteries, which grew things to eat of course, it wasn't a principle, they didn't theorize ecological caretaking for the most part.
>
> Ecology is anti-eschatological in many ways. Not to be unfair, but . . .

This speaker suggests that Jewish and Muslim texts, which other interlocutors also described as oriented "towards the long-term", contain actionable "instructions" and an approach that is concerned with caring for the world in front of us. He compares this to the eschatology of Christian texts and their focus on personal relationships with G-d, an orientation that he suggests precludes long-term "worldly" thinking. The point here is not to single out Christian texts as not affording ecological endeavours, but to note that for some interlocutors, scriptural descriptions were actionable – they laid out instructions and prescribed attitudes to be taken up in everyday life.

Some interlocutors evoked other scriptural mentions of water in specific contexts. For instance, amidst recent geopolitical events, they hoped for "justice to flow like water" and prayed for change.[3]

Interestingly, at times, even when interlocutors closely read scriptural descriptions of water, they did not relate them to their own lives, whether in terms of "instructions" for life or bringing them to bear on events in their lives. For instance, at a series of **Scriptural Reasoning** events, participants were invited to engage with excerpts from Muslim, Jewish,

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[3] A reference, I gathered, to Amos 5:24, which says "but let justice well up like water, righteousness like an unfailing stream". Translation from the JPS Tanakh (Gender Sensitive Edition) via Sefaria.org.

and Christian texts related to water (including Numbers 20:2–13, Romans 8:18–26, Surah 16:10–18, and others). Participants took part in detailed and nuanced discussions, they reflected on the texts at hand, the nuances of translation, the links to other texts, they noted what stood out to them from each text and what seemed similar or different across the texts. Yet they did not connect those texts to their everyday lives. Even those texts that participants noted were written so as to evoke some responsive action by the reader did not provoke connections to their own lives. The exception was one participant who explained, during a discussion of Surah 16:10–18, that "in our culture, rain is considered mercy. We say prayers when rain comes. So, in my country, it's rare to hear those prayers. But when my mother comes to London, she says it every day . . . I don't think rain is mercy here".

Across textual references evoked by interlocutors, the nature of water varies: in some water purifies, in others it is a punishment, and in others it saves those in need or carries with it the possibility of justice, hope, or change. Awareness of these many descriptions varied considerably amongst interlocutors, though many noted at least a few examples.

And yet, while many were able to point to stories and descriptions of water in religious texts, they did not necessarily make links between those stories and their everyday lives. What is more, many individuals read those texts with an eye towards the times and places in which they were written and interpreted them with these frames in mind and, at the same time, individuals read those texts through their personal experiences and the contexts in which they live today.

The relationship between text and action is thus not an obvious nor linear one: there are multiple, changing ideas, experiences, events, materials, and entities that work together as people make sense of texts and determine their relationships to those texts.

Festival waters

Festivals in both traditions involve the use of water and/or specifically centre water or other environmental elements.

Nearly all Jewish interlocutors brought up the Festival of **Sukkot**. (The fieldwork period coincided with the festival, which may account for this consistency if not the connection.) People celebrate **Sukkot** by dwelling in a foliage-decorated tent. Some people may construct a **sukkah** at their home, others may visit the **sukkah** of friends or family, and others a communal **sukkah**. The act of "dwelling" is variously interpreted: some endeavour to have all their meals in the **sukkah**, some sleep in it, others aim to spend as much time as possible, and some may visit a **sukkah** for a festive meal or for the blessings over wine and bread before the meal on the first or second day of the holiday. People also shake the **Four Kinds**—a bundle with date palm, myrtle, citron, and willow—at home, in the **sukkah**-tent, and/or in the synagogue, and rejoice.

Some noted that during **Sukkot**, G-d decides how much rain will fall in Israel in the coming year. Some explained that in the times of the Temple, **Sukkot** was also the only festival in which water was poured over the altar (instead of only wine) during a water libation ceremony celebrated by dancing and rejoicing. This **Simchat Beit Hashoevah** ceremony is

described in the Talmud in the following way: "One who did not see the Celebration of the Place of the Drawing of the Water never saw celebration in his days" (Sukkah 51a:16-17)[4]⬚

At the end of the seven days of **Sukkot**, on **Shemini Atzeret**, there is a prayer for rain. Jewish interlocutors variously noted these facts and commented on the fortuity of this research on water taking place during **Sukkot**. Several people exclaimed: "this is the perfect holiday for you!"

Others also referenced links to **Passover**, when there is a prayer for dew in the coming summer months. Some pointed to the festival of **Tu BiShvat**, which celebrates the new year for trees (one of four new years in Jewish tradition). For many, this holiday has taken on ecological meanings; indeed, in one synagogue, a project from last year's **Cheder** lessons on **Tu BiShvat** was still hanging on the wall during my fieldwork. It featured a large tree around which students had drawn or written their ideas about trees, the environment, what these do for humans and what humans do for them.

No interlocutors volunteered connections between Muslims festivals and water. Asked directly, Muslim interlocutors reported that they were not aware of any explicit links. Some speculated that it was possible that people use more water during Ramadan as they may be more likely to pray (and therefore perform **ablutions**) regularly.

These festive celebrations point to links with the environments in which they emerged and the concerns and needs of the people at the time. They are also times in which observers are invited to attend more carefully to water and nature in general, whether through prayer or by spending more time outdoors. For many, these festivals are also moments in which one's relations with water and nature are deeply implicated in their relationships with other community members, with **G-d**, with ancestors, and their own ethical selves.

Of course, as with the rituals and mandates described above, it is critical to keep in mind that these festivals hold different meanings and are observed in different ways (or not at all) by individuals according to a wide range of factors, including denomination, interpretations, habits, orientations, and preferences, and while interlocutors were mostly aware of these festivals, they observed them in very different ways. That said, a majority of people with whom I spoke identified these holidays – especially **Tu BiShvat** – as times in which they are already engaging in environmental and sustainability discussion and initiatives and would like to do more.

Inspired and inspiring ecologies

In both traditions, some members and authoritative texts emphasise nature's divine inspiration and creation, as well as the idea that humans can draw inspiration from nature. For instance, one local Imam argued that a beautiful environment, including gardens and fountains, inspires people to consider the beauty of nature, evokes the rivers of heaven, and is good for the spirit.

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[4] Rabbi Adin Even-Israel Steinsaltz's translation (William Davidson Edition) via Sefaria.org.

Water and/in religious relations

Others took nature as an index of **G-d**, pointing to **G-d**'s power and presence and reminding readers of those signs to respect **G-d**'s creations; as one interlocutor explained, "water is also important as a sign of **G-d** almighty".

Similarly, one synagogue has a small garden that contains vines, fig trees, olives trees, and a citron tree. As a leader in this community explained, despite the fact they do not produce much fruit, the garden is valued as a backdrop for **Sukkot** celebrations and, for some, as a material link to ancient (and contemporary) Israel and the stories of the **Torah**. Further, just behind the walled garden is a large public orchard full of "traditional English varieties of things" where the **Cheder** takes their breaks and sometimes holds their classes. The sanctuary overlooks both areas; the community originally planned to install a stained-glass window, but ultimately decided "what's better than an orchard".

Others pointed to textual excerpts that they read as reminders of the divine creation of nature. For instance, during a discussion of Isaiah 43:20 at a **Scriptural Reasoning** session, one participant suggested this line implied that animals "are closer to nature, they just drink the water which is given to them, which is how they appreciate it, whereas we [humans] do not". This, she posited, was perhaps a reminder to appreciate **G-d**'s creation more attentively.

Some evoked a line in the Torah in which man is likened to "trees of the field", and suggested that this should remind us that **G-d** created man and tree both and therefore inspire us to care for the trees and nature (Deuteronomy 20:19). Similarly, one interlocutor drew a connection between all living things, suggesting that "Islam ultimately means submission to **G-d** and we believe everything is in a state of submission: humans, animals, plants". He elaborated that recognising our shared nature should inspire us to respect the rights of and act correctly towards all living things.

The idea that nature is both inspired and inspiring evokes a particular relation between the divine, the human, and non-human living things; it is a relation that affects all involved and which requires particular orientations by all involved. However, as with the above categories, whether and how those relations manifest materially, especially in terms of actions that conserve water, was not always made explicit and, when it was, it was not a linear or obvious process.

Food and cooking

Community members across the board pointed to cooking and eating together, whether during festivals and holidays, as a community, or as a family, as essential to religious, social, and community life and wellbeing.

Many leaders and community members wondered whether cooking for large groups for festive occasions increased water usage. This is perhaps a matter of perspective: cooking, eating, and washing together, especially in a community centre (which is more likely to have eco-friendly appliances) may save water compared with multiple households undertaking these tasks separately. On the other hand, individuals who raised this point could have been referring to demonstrable increases in water use (for instance, in reference to changes in a

community building's water meterage and bills during times that feature high levels of communal cooking and eating).[5]

Regardless of whether more or less water was used, community members were emphatic that they would not abandon communal meals. Several were quick to point out that, even if their festive meals used more water as they "involv[e] lots of cooking, dish washing, more people using the toilet", this was no different than "any other religious or even non-religious community organization". Some took this comparative frame further and argued that whatever excess water was used in preparing and washing up after communal meals, surely it was nowhere near as much as was wasted by big businesses, golf courses, swimming pools, or leaky infrastructure.

Additionally, interlocutors of both traditions noted their specific dietary requirements in conversations about water. Though these are not necessarily linked directly to water use, for some they evoked an ethos of care that cut across required actions and orientations to nature. However, as with all practices discussed here, it is important to note that dietary requirements such as **kosher** and **halal** hold different meanings and are observed in different ways (or not at all) by individuals according to their denomination, interpretations, family backgrounds and traditions, habits, and preferences. Interlocutors were largely aware of these requirements but took them up in wide-ranging and nuanced ways, while festivities in institutional settings tended to adhere quite closely to denominational interpretations of dietary requirements.

The practice of coming together around and/or sharing food practices (even if one did not personally take part in those practices), were noted as critical elements of community life by all interlocutors. This is not unique to religious communities: within families and communities of all types, cooking and eating together are key ways in which people become familiar with each other and through which feelings of connection and relations of care and responsibility emerge (Yates-Doerr 2015).

Though many interlocutors were open to the idea of conserving water in the cooking and/or cleaning process (and were even already adopting sustainable technologies or techniques), they were also defensive of the need to be able to continue to share meals. Recourse to comparative frames – such as comparing assumed excess water use during community meals to water use by a large businesses – as part of that defence suggests further thinking is needed to address who takes ownership of which kinds of values and in what contexts. This may be an important component of enhancing sustainability behaviours.

Institutional Practices

For many community leaders, sustainability was not top of mind in their regular leadership practices and relationships—the Cambridge Central Mosque is a notable exception. That said, sustainability was absolutely something they considered when designing new buildings/spaces for their communities. Thus, most newer community buildings have eco-conscious options, such as sensor taps in washrooms, eco-friendly dishwashers, and reusable dishes and utensils.

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[5] This question of corporate v. community members' household usage may lend itself to empirical investigation.

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However, there were key instances in which other considerations came to outweigh environmental ones. For example, in one new synagogue, the planning team intended to install natural ventilation, and this was included in the building design. Unfortunately, though, it did not work effectively in the sanctuary (which is upstairs) and many members are elderly and cannot manage the heat in the summer. To enable them to continue to participate in services, the synagogue installed an air-conditioning system (though it aims to use the air-conditioning as little as possible).

In that same synagogue, a good deal of funds have gone towards "other good works". A leader in that community explained:

> We'd wanted to install a ground source heat pump which would save on heating and electricity, but it's too big and too expensive. Instead, we have installed some solar panels on the roof . . . It's perhaps all slightly over-engineered. I might do things differently if given another opportunity.
>
> But there are many other good works we do in the building and for which heat and hot water are crucial. And this also means there's not a lot of extra time and money to rip things up and install new more eco-friendly heat pumps and so on. Like offering space to homeless individuals in the winter. The downstairs is used to house people for a night and give them a warm meal. Then the next night they go to a church or shelter. There are a few groups involved that house people for a night from December to March, winter comfort.
>
> During COVID this all changed a bit, of course. The council started working with It Takes a City.[6] During COVID the people who would normally come to the **shul** once a week for shelter were moved into hotels or something similar. This is so important because this gives people an address so they can get letters, file for different kinds of services. Now we support them with raising money and volunteering. In the summer of 2022, we started offering temporary housing to Ukrainian refugees.

Similarly, a local Muslim school is in the process of building a new structure as their programmes expand and student population swells. They are planning to include eco-friendly options in their new building, such as sensor taps. However, as one teacher noted, equally if not more important to those plans is their need for enough taps to accommodate growing numbers of students to do ablutions; if it came down to it, those accommodations would take precedence.

Overall, there is a significant interest in sustainable building and infrastructure options at the leadership level (and largely echoed by community members). However, limited resources mean that leaders are sometimes pushed to hierarchise funding allocations and, often, major building works (which can be very expensive) are de-prioritised in the face of pressing and immediate human and/or spiritual needs. It is in these moments of tension when communities must negotiate what constitutes an ethical decision and ethical Jewish and Muslim lives.

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[6] A city-wide partnership aiming to end rough sleeping and provide support for those without a home.

On the whole, they are well aware of the weight of the moral responsibilities implicated in these funding dilemmas and choices. It is therefore critical that any projects aimed at supporting sustainability within these communities recognise this ethical decision-making process and do not devalue their good works while highlighting sustainability measures.

Understanding water

The ways in which individuals understand, attribute meaning to, and negotiate relationships with water vary widely across and within Cambridge Jewish and Muslim communities. Some frames community members took up include water as a resource, a life source, a source that requires care, a commodity (which some feel the water industry has made water into), a source of enjoyment, pleasure, and leisure.

For many, there are different waters that might be more or less interlinked in different contexts and through different relations. Some water might be part of ritual practice, some is a resource they use every day, and some is a source of recreation, and all of those waters might be impacted by pollution and a lack of care and attention.

Many interlocutors pushed back against water-as-commodity or even water as resource (and the implication that resources are devoid of meaning beyond their human utility). Some even worked to adjust their language to reflect their alternative way of relating to and understanding water: "Humans have been given the responsibility to look after resources. . .I don't even like to call it resources, they call it source. Sources. It's a source of life".

For many interlocutors, it was especially the waters in which one immerses oneself that concerned them. Some reported watching the River Cam become increasingly polluted over the years and no longer feel safe swimming in it, something which they remember fondly from their childhood and in which they participated as adults until not long ago. As one interlocutor described her relation to a particular body of water:

> You know Hobson's Conduit? I was brought up on water that came from there. I've got chalk in my bones. It dried out in 1976 and I think it never totally recovered. They've never instituted any hose pipe bans, no restrictions, even in extreme conditions. And we haven't noticed because the river is still there, and it still comes out of the tap . . .
>
> I used to swim, there's a group that does it. But after that [seeing a friend get sick after being in the river], I can't anymore. It's fundamental, absolutely essential for life. I really feel helpless, almost like a grief.

Though she reported that she does not see a link between her religious life and her relationship with the Conduit, that relationship is deeply meaningful. It is embodied – in the grief she feels for the river's pollution and subsequent loss of intimacy between herself and the river, and in her bones (literally, figuratively, and kinaesthetically). This is a bi-directional relationship of empathy in the sense of "feeling one's way into another": she has felt her way into the water and the water into her (Özyürek 2018).

Another interlocutor evoked a similarly intimate relationship with water. A scientist and researcher, he described his work with a local body of water:

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> I had followed this river for so long, learning from it, researching it, following it on my bike. And then I went in and got sick. I spent a long time thinking: why would the river do this to me after I'd spent so much time with it? Perhaps it's telling me something?

Not only is his relationship with the river embodied, it acknowledges the river as an actor in that relationship. What is more, in this recounting, the river can act on – and even against – its human relations.

Some other interlocutors emplaced their relationship with water within their religious ways of being, but in unexpected or ambiguous ways. For instance, one individual lived in Israel for many years, where he felt he saw environmentalism baked into many areas of life and at the forefront of many minds. Now living in Cambridge, he is committed to improving water systems, especially drainage and sewage systems, as well as changing individuals' relationship with water and nature broadly. However, for him, the links between his environmental action and Jewishness are present but not necessarily clear in ways that he could articulate.

Others took up the dual frames of religion and rights, suggesting that key to an Islamic orientation to the world was the idea that "every living and non-living element of the enviro[nment] has its own rights that need to be respected". Relatedly, one interlocutor introduced the idea of "boundaries", suggesting that water and nature at large has boundaries that humans should not "overstep".

This conceptual and relational diversity should remind us that there are other ways of relating to water beyond the utilitarian and beyond the economic. While interlocutors are acutely aware of economic framing of water, they are sensitised and relate to water in a range of other ways, which some interlocutors see as implicated in and/or framed by their religious lives and prescriptions and others do not.

This invites us to ask: how is it that alternative modes of relating and/or sensitisation to water become available? This is not a straightforward question, nor likely one that is measurable; rather these relations are complexly configured, involving a range of materials, narratives, actors, affects, economies, and more. There are lessons for water industry actors in these multiple meanings, relations, and orientations that move us beyond solely economic or utilitarian terms.

Trust, scepticism, and suspicion

By far, the most common questions and concerns interlocutors raised reflected issues of trust in water institutions.

Many were sceptical of the water companies' motives. They questioned why a water company would want to know about their religious lives, why they should be singled out as a religious group, and why their other good deeds did not "count". Others felt that the water companies were trying to place the blame on individuals without taking responsibility for structural and infrastructural problems. As one interlocutor expressed:

> Coming from [another European country] I'm shocked that in the UK we don't have a better way to conserve water, to store water. I don't understand why the water companies don't invest more in repairing pipes,

> sewage and drainage systems, etc. You read about them all the time dumping sewage into the rivers.
>
> I would absolutely never swim in the River Cam, it looks filthy. Does my turning off the tap make such a difference if they're not fixing the big problems? Why are the same places flooding year after year? Why can't they manage that? And then their administrative bloated salaries . . .

Others wondered whether Christians and/or white British people were being similarly targeted, and they were confused at the presumed links between religion and climate action.

Some interlocutors reported an existing awareness of Get Water Fit and water "ephemera" (i.e. pamphlets or other messaging) and being unconvinced by either. Several indicated their own involvement and/or pointed to the involvement of other community members in local water and climate change-related initiatives and questioned why water industry actors were not listening to nor working with those directly.

Some worried whether and to what extent water companies might seek to interfere in religious practice. Many noted that the private nature of water companies and the idea that they might be beholden to shareholders made water into a commodity or proprietary thing, conflicting with what should be the nature of water as a shared resource. As one interlocutor, keenly aware of water industry activity in the area, articulated:

> It's upsetting to see how it's run here. They're building a new **aquifer** far away in Lincoln to serve the Anglia Water region. It's strange and totally opaque.[7]
>
> It's hard to figure out who to talk to and where to try to intervene because there are so many private companies buying each other up and this one manages the potable water and that one manages the sewage water. They will need to dig into the landscape, destroying nature, and install tons of new pipes which will generate only as much water as they currently lose through the existing leaky pipe system. It made no sense and seemed all about money. Why not do something more local or fix the pipes?
>
> The water companies are all about money, in the end it's all about money. We're in a crisis, there are people who can't afford water, there's not enough water, there are leaky pipes and overuse and at the end of the day for these for-profit companies, it's all about the bottom line. You can't trust them, really, to act in a way that is purely to benefit people, or water, or the environment.

Sceptical of the motives of a for-profit water industry, doubting why a company that stands to profit from increased water use would want users to conserve water and/or save money, unhappy with the equation of water with only economic value, and feeling targeted, othered, and even marginalised, many interlocutors were not sure that they would be open to top-down water company intervention into their communities.[8]

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[7] I understood this speaker to be referring to a reservoir (not aquifer) and related pipelines that Anglian Water is building in Lincolnshire to serve communities in the east of England, including Cambridge.

[8] While water companies do not directly profit from increased water use, this idea remains prevalent and influential. Rectifying this belief will not mitigate the awareness that water companies are private, for-profit organizations. Nor can it erase the fact

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This discourse of distrust and reluctance to engage (or be engaged) invites us to think of trust as a at once relational and infrastructural, in that it is a "matter that enable[s] the movement of matter", in this case the sustainable movement of matter (Larkin 2013; see also Zhang 2023). Though trust lacks the obvious physical embodiment of most other infrastructural components, it is crucial for supporting any sustainability initiatives we might desire to forge.

Interlocutors' discussions of trust further encourage us to think about the ways that language mediates trust. For instance, we might ask whether reducing water conservation and sustainability to interests, stakeholders, and economic motives allows for or precludes potential collective, visible forms of shared development and trusting relations.

How does water industry language reify the water companies and others as actors or entities entirely separate from the communities they hope to "reach"? To what extent does existing industry discourse about trust in fact instrumentalise trust? Through ideas about using community "champions" to spread company messages, for instance. Or treat trust as something that can simply be patched up like other components of infrastructure? Might current ways of talking about distrust create it as a disruptive thing 'out there' while ignoring the layered, specific, and often intimate ways in which trust is degraded (or cultivated)?

If sustainability is framed only in economic terms and we are asking interlocutors to consider everyday acts through the lens of sustainability, to what extent are we also asking them to recontextualise existing actions and relations as primarily economic? And, finally, what are the implications of that request for building relations of trust?

Seeing is believing

Many interlocutors reported *knowing* that there are water supply concerns in Cambridge and the UK more widely, as well as an awareness of general climate change issues. However, many also have the sense that it is hard to "see" the problem for a range of reasons, including frequent rain in Cambridge, regular flooding, the several rivers in and around the region that frequently swell to the edge of or over their banks, water which comes easily and regularly out of the tap, and a lack of bans around or direct regulations of personal water usage.

As one interlocutor, a teacher in an Islamic study programme, postulated about his students:

> It's [water shortages] something we're aware of but not something we really implement. We don't want to take it for granted, but inevitably we do. Everyone is just used to it being there any time you want . . .

> I'm not even so well informed about what are the consequences or not [of not conserving water]. If we're not conserving water what does that mean?

> Probably some students think it's all just the water cycle. If it goes down the drain it probably just gets recycled. It requires a series of thinking that

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that water companies stand to profit by increasing water efficiency in their regions, and this may cause other actors to be suspicious about their motivations when seeking to influence water use.

> maybe we're not doing. We're not seeing the process of what it takes to get a sandwich at the Tesco's. It just seems to be there, it's always there.

> It's connected to modernity in general. We're kind of distanced from all of the different processes that go into making our life as it is. We're aware of the wider context, of the global economic order, but on a day-to-day basis, it's kind of veiled to us.

Relatedly, some community members felt that they could not convincingly "see" how their individual water-saving actions could impact the water supply to the same degree that actions by big businesses, golf courses, or other major water consumers would. Further, they identified more visible problems in the failure of the water companies to act to repair leaky pipes, fix drainage issues, and prevent the dumping sewage into various bodies of water. Several pointed to the planned reservoir and pipeline from Lincolnshire (mentioned in the previous section) as evidence of this problem.

Others described the power of visual representations.

As one interlocutor noted, before installing a rain garden that allowed him to literally see the rain collected, it was not clear how much water was going down the drain and how much potential there was for recycling and/or using water that is typically being "wasted".

Another interlocutor, involved in a local water initiative, pointed out that the official water cycle diagram was only just this year revised to include human input – previously, the way we "pictured" the water cycle was as a discrete natural process devoid of human or even animal participation.

Relatedly, during a workshop at the Cambridge Central Mosque, participants were invited to build a model of the water cycle using pipe cleaners and clothes pegs. All referenced having seen depictions of the water cycle at school. Of three groups of participants, the largest group built a model that, while elaborate, did not include humans. When this fact was pointed out to them, they acknowledged that humans were key actors in and impactors on the water cycle; as one participant exclaimed, "Of course it's us, we're destroying the whole thing!"

One Muslim Scout leader emphasised the importance of visualisation in the activities offered to scouts. He explained that many of their activities take place in nearby forests. The hope is that scouts will develop a "sense of comfort and being oriented in nature". At the same time, the scouts go on fieldtrips to places like the local recycling centre so that the children can "see, that's important, what happens to our rubbish when we throw it away, our blue bins, compost waste".

The ways in which relations, actors, and issues are (in)visibilised has a powerful effect on how we understand, produce knowledge about, and engage with those issues. The point is not to devalue the invisible or intangible, but to acknowledge the impact of (in)visibility in shaping knowledge about and relations with water and water crises. Indeed, visualising the often invisible can be a powerful and even political move with the potential to shift understandings and attitudes.

What is religious?

Many interlocutors reported engaging in water, climate, and related sustainability actions, ranging from participation in Extinction Rebellion, WaterSensitive Cambridge, Water Stories, Transitions Cambridge, and other formalised action groups, to everyday practices like turning off the tap when not in use, planting smaller plants that require less water in their gardens, installing rain butts, and not watering their lawns during dry periods. However, for many, these decisions were not clearly motivated by nor connected to their religious lives. These actions were not necessarily "religious" in nature.

For instance, a walking group organized through a local synagogue and populated by members of that synagogue described itself and its members as connected to nature but as primarily social. As one organiser explained: "We all love nature, and we love to spend time out here. But it's social. It's not religious. We're not all religious, some of us more than others." (The group laughed.)

Similarly, many participants in a gardening group initiated through the same synagogue were strongly committed to sustainable gardening, inviting experts to give workshops on sustainable gardening practices and changing their own home gardens to be more in tune with local climes and sustainable approaches. Changes members made included: not wasting water "trying to make things grown that aren't surviving naturally"; growing "things that I think will grow reasonably happily in our soil"; and ensuring they do not have "garden[s] full of plants that need constant watering". They described enjoying "doing things from season to season", "nursing [plants] and . . . seeing the finished plants", being into "the biology of it", finding gardening "therapeutic", and enjoying being outside. Yet for this synagogue-organized group, gardening, sustainable or otherwise, had "nothing to do with being Jewish".

For others, it was not clear what was "religious" and what was not. For instance, one interlocutor explained that her family does not eat much meat, which was "good for the planet", but was a decision "that's more to do with the availability of kosher meat, and the quality". Was this a religiously inspired environmental decision, a religious decision with environmental consequences, or a practical decision framed by religious commitments and environmental implications? Still others did not see themselves as religious and, therefore, felt their actions could not clearly be described as religious.

The ambiguity around what constitutes the religious and what makes a particular action or decision religious suggests that it may be important to rethink the working definition of "religion" in water industry discourse (as encountered through this project). This may entail reconsidering the word "faith", interrogating assumptions about who or what is religious, and questioning the presumed connections between scripture, religious commandment, and personal action.

It may also include, as discussed further below, rethinking what work the term "faith" is doing in water industry discourse and what other identities or categories it might be standing in for. Additionally, interlocutors' recognition of the blurred lines between religious and non-religious ideas and actions invites us to consider more carefully what we hope to achieve by delineating between the religious and the secular and between religious and other communities. One University interlocutor hypothesised that the phenomenon of what

is perceived as "religious" or not may map onto differences in how British society and other societies position "religion" in public discourse.

Equally, it is important to explore the diversity of uses and definitions of "religion" and "religious" by interlocutors and members of other religious communities. We might ask where, when, how, and to what extent do community discourses overlap with water industry discourse? How might this be bound up in the ideologies and politics of religion, environmentalism in the UK more broadly? What are the implications for work at the intersections of religion and sustainability?

Unexpected (dis)connections

One of the most consistent themes that emerged from conversations with interlocutors was that there exists a disconnect between different ways of knowing, different relations with water, different waters, and sustainability actions.

Returning to some examples cited above, recall how during a **Scriptural Reasoning** workshop, participants read a series of water-themed texts. Some texts were written such that they demanded responses or actions from the reader (for instance, showing gratitude for that which **G-d** provides, including water). Yet readers highly knowledgeable about the scriptural tradition from which the texts came and equipped to interpret their many layers and multiple meanings, did not make links between the actions demanded by those texts and their own daily practices. In another previously noted example, many interlocutors highly valued water, especially natural sources of water, for their beauty or the visual enjoyment or inspiration they provide, but despite this intimate relationship did not connect their own actions with any impact on water.

Other interlocutors pointed to a disconnect between water industry demands that religious communities (and users in general) conserve water and the water companies' failure to respond to structural and infrastructural issues, as well as their presumed goal of turning a profit.

Still others, as noted earlier, were uncertain of the connection between their own actions at home and the big picture: What effect could turning off the tap while brushing one's teeth have on disappearing chalk streams, drying **aquifers**, or rampant pollution?

Even those engaged in water activism sometimes questioned the connection between public protest and agitation and changes in water management and infrastructure – was there a consequential connection? Were they having an effect?

Based on interlocutors' thinking, a potential step towards addressing these disconnects may lie in troubling the presumed distinction between the economic and material and the social and emotional. At times, the act of conversing about religion and water seemed to trouble interlocutors' thinking about how these two things intersected. These disconnections merit more attention, to determine whether and how they affect behaviour, and perhaps even what is necessary to trigger change. Such inquiry fell outside the scope of the present research.

Language matters

Finally, taking the various water industry actors and researchers as interlocutors in these unfolding water conversations, this section draws attention to the language of othering and opposition circulating within public discourse about religion. From the initial meeting that kick-started this project, public discourse often slipped to frame religious communities as distant others.

Rhetorically, the mythical people to be studied were positioned as figures whose "failures" were "religious" and/or "cultural" (and these terms were deployed in problematically synonymous ways), people in need of education and correction. Descriptions of how "they wash their rice", how "their" traditions were passed down over generations and would therefore be difficult to break, how some water users are "hard to reach", and most "don't know" about the current water crises, were prevalent – perhaps in spite of industry interlocutors' best intentions.

The solution, in contrast, was framed as coming necessarily from water companies, bringing data, technology, and superior understanding of water and water crises.

Such language established a strange other, an alien, whose knowledge was lacking and whose way of being was anathema to water conservation action. It also reiterated and reinforced apparently self-evident distinctions between the (scientific and economic) water company and (social, emotional, and traditional) community. This happened despite the obvious reality that every person involved in this project was and is a water user.

Despite the foundational assumption that knowledge was owned by the professionals, in reality community interlocutors offered a range of knowledges: from water saving gadgets water industry actors had not previously heard of, to alternative ways of thinking and relating to water that undermined utilitarian and extractive frames, to strong grassroots networks and initiatives engaged in locally meaningful efforts to change water infrastructures *and* hearts and minds.

At various points during this project, water industry actors acknowledged the problematic nature of the idea of "hard to reach" people and groups and similar language. This indicates awareness of the need to develop other frames for thinking, talking about, and relating to water users. A fruitful next step will be to cultivate the reflexivity necessary to address and build those novel frames.

We can also question whether the structure of the project shaped the kinds of language and relations evoked. For instance, most meetings between water industry actors and university researchers took place in university spaces. If we had gathered in community spaces, might other forms of language and/or other relations have been enabled? Such questions invite us to reflect on the role of context and the importance of collaboration between all actors impacted by water interests.

There are lessons to be learned here, first and foremost that language matters. Also that listening is crucial. And, ultimately, that religion deserves to be taken seriously.

Findings

Looking across these themes, we can identify three interlinking takeaways:

First, in most water industry discourse on sustainability, the idea itself and potential enactors of sustainability are framed in narrow eco-modernist and Eurocentric ways. Solutions, in industry talk, are understood to lie in technologies or technologically supported practices that can or should support a future-oriented move towards water sustainability. Yet these discursive frames overlook or even preclude ongoing socially and spiritually embedded sustainable practices and orientations, whether because their underlying motivations are not solely economic, because they are informal or unregularised, or because the involved actors do not talk about their actions in sustainability terms. This should invite us to carefully consider the role of language in framing and potentiating sustainability actions and initiatives and to think about ways to pluralise the frames for sustainability with which the water industry works.

Second and relatedly, many religious communities and individual members are already involved in a wide range of what they explicitly identify as sustainability and sustainability-related initiatives. Equally, they are aware of the pressing need to care for water and nature more broadly (a need which they ascribe to a range of causes and motivations). Many are, as one interlocutor described, "proactive" and, in many cases, could use meaningful, non-disruptive support for their initiatives. Any work that seeks to engage these communities must therefore be first and foremost deeply collaborative and begin from a point that takes seriously religion and existing sustainability work within religious communities and that does not reify the hierarchised distinction between the economic world of material resources (of the water industry) and the social-political realm of relations and emotions (of religious communities).

And finally, religious ways of being may de-centre the kind of instrumentalist and economic framing that enables the exploitation of resources like water in the first place. Instead, these ways of being engage alternative relations to and ways of thinking water as not only a resource for human use and/or a commodity, but a differently valued being with which humans (and other living beings) enter into meaningful and affective relations. To quote one interlocutor:

> One of the big dividing points of the Islamic view of life and humanity and modernity's view of life is modernity with civilization and science and technological advances is extremely powerful – we've managed to get people on the moon, we've managed to get into medical advances, nanotechnology, and so on, but one of the accusations levelled at modernity is it's very short-sighted. It's using up natural resources at speed, the climate is changing irreversibly, and a lot of Muslims believe that as powerful as Western Modernity (if I can say that) is, it's very short-sighted and running itself into oblivion or into destruction.
>
> Ultimately if we can't sustain the planet, there's no point. The way western civilization is set up, it's all about politics and elections so the play makers are also short-sighted. It's important to frame it in terms of modernity and its un-sustainability. . . The biggest issue is we're sort of sleepwalking into catastrophe on a global scale we've never seen before.

Water and/in religious relations

> The key thing is for modernity to have a degree of humility. If we look through history, there are a lot of answers there about sustainability. Faith-based communities like ours represent a portal to the past when things were sustainable. We have to ask why.

> If the whole enterprise of advancing technology is linked to slow self-destruction, we have to ask if that's what we want. What's the purpose of life unless the underlying premise has been explored? Do the benefits outweigh the consequences of modernity advancing at its pace? So why are we doing what we're doing and is it justifiable to use the world's resources? We can't answer that unless we have the underlying question explored of what is our purpose of life and what are we doing?

As this quotation illustrates, religious ways of being offer lessons for existing utilitarian and economy-oriented relationships with water. They may indeed offer the potential to shift attitudes, orientations, and, crucially, relations with water more broadly.

Potential for Future Research

We have identified two primary areas for future research. It is likely that there are others as yet untapped.

First, as noted, the academic research phase of this project concentrated on two communities in Cambridge. Along the way, we heard from members of a wide range of other religious communities in Cambridge and beyond. Future research can build connections with and learn from those communities too.

At three workshops, for instance, we heard from Hindu interlocutors about the personification of water in the form of "Ma Ganga" (Mother Ganges) and other goddess-rivers, specific forms of religious praxis that contribute to river pollution (the deposition of human remains, for example), and the strength of religious ideologies that appear, at first glance, to discourage human intervention against river pollution. We further learned about meaningful practices of hospitality and abundance that include performances of high consumption and even waste.

It is crucial to acknowledge the diversity of experiences, ideologies, practices, and needs within and between religious communities. What works for one community may not work for another. Equally, a great diversity of perspectives, ideas, and practices are needed to address our current water crisis (and broader environmental and polycrises) in ways that are meaningful and effective.

Second, further work is needed to better understand and find ways to address the disconnections identified in this report, namely that between knowledge, text, and/or mandate, and behaviour. Existing research shows that the answer is not simply better messaging (Kahan 2014; Kahan et al. 2012). Scientists themselves suggest that scientific innovation is an insufficient answer to the challenges of climate change (Hulme 2014; Stoop 2021). This work should be collaborative, local, interdisciplinary, and open-ended.

Recommendations

Based on our detailed discussion and findings, we offer seven recommendations. The first four are intended for actors within the water industry, especially water suppliers.

1. **Learn.** When seeking to engage communities characterised by "religion" or "faith", industry actors have a responsibility to consider and enhance their own religious literacy. This may include seeking opportunities for learning that do not put the onus of education on those communities themselves, as well as listening to what communities – and individuals and groups within those communities – are saying about themselves.

2. **Be reflexive.** Further reflection about who or what is "religious" and/or "cultural" and the work these terms do in industry discourse is needed to avoid othering and marginalising so-called "faith and diverse communities". This may include questioning the implications of operating definitions of religion and culture, thinking about the biases and assumptions industry actors bring to interactions with religious communities, teasing apart the presumed links between race or ethnicity and religion in industry discourses, and thinking about the ways in which language can act to exclude people.

3. **Avoid generalising.** It is important that water companies are aware of and account for diversity within and between religious communities, if the aim is to produce and implement meaningful sustainability initiatives. This may include acknowledging that there is not necessarily a straightforward connection between religious practices, mandates, scriptures, or declarations from leadership, and individual practices for all people, as well as the fact that assemblages of water, authority, knowing, and action are highly contextual, contingent, and nonlinear, and acting accordingly. This will also necessarily include direct collaboration and communication with communities to better understand their needs, views, and potential lessons they might offer. This may further mean reconsidering whether and how far-reaching "campaigns" or "messaging" are launched, to whom, and how.

4. **Listen.** Listening is crucial – companies should aim to listen to, take seriously, and learn from users, rather than telling "them" where "they" are failing and what "they" must do. This might include asking what they are already doing and oeasking open-ended questions rather than directed questions. This might also include learning about the "ins" that communities have already identified for encouraging talk about and the adoption of conservation and sustainability practices and for shifting people's relations to the environment, as well as the kinds of support they may need to do so. It is important to listen to where and how they need support, rather than to offer provisions that are unlikely to be meaningful and therefore unlikely to be taken up. Above all, any sustainability initiatives, strategies, tools, or events must be collaborative and done with awareness of and respect for religious lives, desires, and ways of being.

Water and/in religious relations

Noting that water is a common resource necessary to all life forms, we also offer an additional recommendation for all stakeholders interested in influencing action at the interface of water, religion, and climate change.

5. **Collaborate.** Water sustainability initiatives should be first and foremost collaborative. Those who are most immediately impacted by water interests and issues should be at the centre of the design process. This means that it is crucial for all actors to acknowledge that anyone can participate meaningfully in that design process. [9] Doing so supports the possibility that initiatives will not non-reflexively reproduce existing frames for relating to water and/or existing matrices of exclusion and marginalisation. It will also help to create a more equitable distribution of sustainability's benefits, as well as its challenges, responsibilities, and burdens. Collaboration should entail and enable the recognition of existing sustainability practices and relations. Finally, a collaborative approach can offer a powerful alternative to top-down approaches that tend to create distance and knowledge hierarchies and often fail to produce meaningful change.

Additionally, we offer two recommendations for those with expertise in the domains of religion and education, or who have the possibility to advance research and engagement (including through the allocation of research funding):

6. **Contribute.** Consider the possibilities and opportunities to design and implement industry-appropriate religious literacy training. This could help to take the onus of education off often under-resourced communities and support more meaningful exchanges and collaborations between water industry actors and religious communities.

7. **Continue.** This report has identified further opportunities for meaningful research around the intersection of religious communities and water use, with parallel opportunities for funders concerned to advance knowledge and activity in this domain. Such work may include:

    a. Studying how other religious communities use and relate to water and sustainability;

    b. Exploring (dis)connections between knowledge and action, where there is insight to be gained from disciplines such as behavioural psychology; and

    c. Co-designing and implementing sustainability projects with community actors. Support for researchers and communities is much needed to enable this work to happen.

Following these recommendations has the potential to support meaningful relations with water and strengthen water sustainability initiatives. Done well it may also help to resolve the existing lack of trust in water industry actors that has arisen as a result of factors including the prevalence of water-related crises in the news, the for-profit, private nature of water companies, and the reflex tendency to construe a "problem" in terms of communities that are "hard to reach".

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[9] See Costanza-Chock (2020) for more on equitable design processes.

Additional Resources

Further reading

In the course of this research, we received input from various organisations rooted in traditions that lay beyond the immediate scope of this report and therefore not covered in detail here. We are emphatic that further work is needed to engage as diverse a range of perspectives, approaches, and relations as possible to enrich conversations at the intersections of religion and water.

To this point, the following organisations offer further views on and relations to water. The reader may find both resonance and points of articulation with those covered in this report:

Hindu Climate Action www.hinduclimateaction.org	**Eco Sikh** ecosikh.org
Pagan Federation paganfed.org	**Eco Dharma Network** ecodharma.com
A Rocha International arocha.org/en/	**Water Sensitive Cambridge** www.watersencam.co.uk

Additionally, as noted in the earlier literature review, there is a significant library of existing anthropological literature covering a) water as related to and beyond religion, and b) religion and the environment and/or ecologies more broadly. This literature has informed our report but, for the sake of specificity and conciseness, has not been explicated in detail. For the interested reader, below is an indicative list of readings in this area.

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Glossary

Ablution | The act of washing oneself, normally for sacred purposes.

Aquifer | An area of porous rock or sediment saturated with groundwater (from rain or other precipitation). Water may move through the aquifer to resurface in springs and wells.

Cheder | School sessions for young children to learn about Jewish practices and some basic Hebrew language.

Fatwa | A non-binding ruling or decision made with reference to Islamic law. The strength of such rulings relies upon the authority of the source.

G-d | A respectful form of the divine name using a hyphen in place of the letter "o". As some interpret Deuteronomy 12:3-4 (a commandment not to destroy the divine name) with reference to all languages and this report could be printed, this alternative form is used.

Hadith | A saying of the Prophet as recorded in Muslim tradition.

Halal | This Arabic term refers to something that is permissible or lawful in Islam. In reference to food, it is the Islamic dietary standard.

Kosher | Any food suitable for Jewish people to eat in that it adheres to Jewish law. Kosher can also be used to describe something as appropriate, acceptable, or "fit for use". Interpretations vary.

Mikvah, plural **mikvaot** | A Jewish ritual bath filled with natural water (from rain or a flowing source). Jewish law specifies that women should immerse themselves in this bath after menstruation. Immersion is also required if someone converts to Judaism. In some communities, men may also visit the *mikvah*. People may also immerse themselves at other times and for a range of other purposes. A *mikvah* may also be used to purify new utensils, cookware, and dishware before use. Specifications for *mikvah* structure and contents are highly detailed and have been much discussed, especially as technologies and community norms have changed.

Mitzvah, plural **mitzvot** | Religious rules or (in traditional English) commandments. Observant Jews keep up to 613 such rules.

Netilat Yadayim | A ritual blessing and practice of washing one's hands before eating a meal with bread, sometimes with a two-handled cup. The same may also be done when waking up in the morning and at other specific moments. Typical steps include pouring water two or three times over each hand, while saying words of blessing: "Blessed are you, O L-rd, our G-d, King of the Universe, who has sanctified us through your commandments and has commanded us concerning the washing of hands". Interlocutors mostly used the phrase "Netilat Yadayim" to refer to handwashing before meals with bread.

Passover | Also known as **Pesach**, this seven-day holiday normally falls in March or April. It recalls the enslaved Israelites' escape from Egypt led by Moses. Many Jews clean their homes of and avoid foods that have been allowed to rise (as e.g., wheat bread with yeast), and enjoy a special meal (*seder*). Practice varies.

PBH | Shorthand for the phrase "Peace Be upon Him", words used after naming the Prophet to show respect.

Scriptural Reasoning | A format for dialogue between different faith communities. People from different religious communities take it in turns to introduce a pre-selected text from their tradition. For dialogue between Jews, Christians and Muslims, these would normally be passages from the Tanakh (see Torah), the New Testament and the Qur'an. Passages are often chosen because they touch on a common theme or topic. Everyone is invited to read reflect on these texts, sharing what strikes them.

Sheikh | A scholar or respected leader, especially among Muslim communities. The Arabic term refers to someone who has grown old, an elder.

Shemini Atzeret | Two additional holidays follow *Sukkot*: Shemini Atzeret and Simchat Torah. For Shemini Atzeret, a memorial prayer is said, as well as a prayer for rain. In this way it marks the start of a rainy season.

Shmita | Literally 'seventh', this Hebrew word refers to the practice of resting agricultural land every seventh year."

Shul | A Yiddish term meaning "synagogue". The English word **synagogue** is based on the Greek for "gather together" or "assemble". It refers to buildings and places where Jews gather for prayer, study, and other activities.

Simchat Beit Hashoavah | A water-drawing celebration carried out at the Temple (in times past). Unlike other times of the year, at **Sukkot** water was poured over the Temple altar after offerings (instead of only wine). The entire process, from drawing the water at a nearby spring to pouring it over the altar, was celebrated with music, dancing, and much fanfare.

Sukkah | A temporary hut or tent-like structure erected during the holiday of **Sukkot** (see below). The *sukkah* is meant to represent the tents or temporary structures in which the Israelites lived as they wandered the desert for 40 years after escaping from Egypt. It is traditional to decorate one's *sukkah* with fruits, flowers, and other plants. Some families build their own *sukkah* at home, others visit a local communal *sukkah*; some people have their meals in the *sukkah* and some even choose to sleep in theirs.

Sukkot | This weeklong holiday, also known as the Feast of Booths (or Tabernacles) normally takes place in late September or early October. The name is the Hebrew plural of **sukkah**. This holiday celebrates the gathering of the harvest in ancient times and recalls the 40 years during which Israelites wandered the desert after receiving the Torah at Mt. Sinai. Celebrations include using a **sukkah** (see above). Many people also take specified plants (the "Four Kinds") and shake them: an *etrog* citrus, branches of date palm, willow, & myrtle.

Talmud | Related to the Hebrew for 'learning' or 'study', the Talmud records historic debate between Jewish scholars about how to apply Scripture to daily life.

Torah | A key part of Jewish scripture, the Torah provides a story of the world from creation to the death of Moses, together with rules for living. When people refer to "the Torah", they often mean the written Torah (also known as the Five Books of Moses). This **Torah** combines with the Writings (**Ketuvim**) and Prophets (**Nevi'im**) to make the **TaNaKh**, known also as the Hebrew Bible or the Jewish Bible. "**Torah"** may also refer to all Jewish teachings.

Tu BiShvat | Named as the 15th day of the month *Shvat,* this holiday is also called the "New Year of Trees". It typically falls in January or February.

Wudu | A cleansing ritual performed to make the individual pure. This process is required prior to prayer for both men and women. It includes washing hands, mouth, face, arms (up to the elbows), and feet. Water is usually poured over the top of the head as well. In the absence of appropriate water, dry ablutions are permitted. Notably, the specific process of *wudu*, the amount of water used, and when/if dry ablutions are allowed vary within and across Muslim communities and are debated amongst scholar and leaders.

Yiddish | Yiddish is a Jewish language that dates back to the 9th century. It emerged as a result of language contact between Jews and Christians in the Rhine Valley in the German region. It is influenced by Germanic, a mixture of Biblical Hebrew and Aramaic (the so-called "holy tongue", **lashon hakodesh**), Judeo-Romance languages, and Slavic components. It has a long history in Jewish life, community, art, and writing, and continues to be used in a range of ways and by a variety of communities in the Jewish world today.

Appendix: Indicative Interview Questions

For interviews with Community members

Topics

- Water systems/technologies in use
- Daily uses of water
- Held beliefs and self-identification
- Ideas about links between religious identity and water
- Ideas about sustainability, water/water efficiency, climate change

Questions

General

- What do you believe in?
- What are rights and wrongs for you? Examples? How do you know those things? How do you put that into practice?
- Do you have any figures in your life that are inspiration to you? They could be real or fictional.
- Are there any books, movies, TV programmes which have significance for you and influenced you?
- What, or who, is most important to you in your life?
- Would you define yourself as a religious person or a person of faith? If so, how would you describe your religion/faith? How did you come to your religion/faith?

Water & Environment

- How long have you lived in Cambridge? What brought you here?
- Since you've been here, have you noticed any changes in the weather? For instance, more or less rain, hotter or colder temperatures, etc.? What do you think has caused those changes? Has this affected you in any way? How have you responded to those changes?
- Where do you get your information about environmental issues? For instance, what kinds of media, the local council, friends or family, etc.?
- How would you describe your views on or relationship to the environment? What motivates those views/that relationship? Where have they come from?
- Walk me through your typical day – where do you go, what do you do, who might you encounter? Thinking back on your description of your day, when, where, and how do you use water in the day?
- Could you draw me a map showing your water use during the week?
- At the moment, do you worry about water consumption? Have you ever tried any water conservation technologies or strategies in your everyday life? Such as?
- [If yes] what motivates you to be worried and/or try [technologies/strategies]?
- Are there any [religious community] texts, scholars/leaders/other people, or other sources that inform us about the environment? In your understanding, what does [religious text or other authority source] say about the relationship between people and the environment?
- Thinking about [interviewee's local religious community], how would you say the community uses water? Do you know if they have ever tried any water conservation technologies or strategies in your everyday life? Such as? Do you think it could be important for your community to try such strategies/technologies? Why/why not?
- How would you describe the current water situation in Cambridge? In the UK? What do you make of that?

- Many water companies are worried that the UK might experience droughts in the near future and that we need to find ways to use water more efficiently and conserve water. What do you think Cambridge Water needs to know or understand better in order to make changes that would work for people?
- In your opinion, what could be done to improve the environment? What could be done to improve water consumption? What can individuals do? What could [interviewee's community organization] do? What could Cambridge Water do? What could the UK do?

For interviews with Community Leaders

Topics
- Water systems/technologies in use
- Community uses of water
- Ideas about links between religious identity and water
- Ideas about sustainability, water/water efficiency, climate change

Questions

General

- How would you describe your role in [community]?
- Tell me about some of the activities of your community. What kinds of events, services, meetings, schools, etc. do they offer?
- How long has your organization been in Cambridge?
- How would you describe the members of your community?
- How would you describe the building(s) your community typically uses? How old are those buildings? How long has your organization been located in / used them?

Water & Environment

- How would you describe your views on / relationship to the environment? How would you describe your community's views on / relationship to the environment? Do those align? What motivates those views / relationships?
- Thinking back over recent years in Cambridge, have you noticed any changes in the weather? For instance, more or less rain, hotter or colder temperatures, etc.? What do you think has caused those changes? Has this affected your community in any way? How has your community responded to those changes?
- Where do you get your information about environmental issues? For instance, what kinds of media, the local council, friends or family, etc.?
- Are there any [religious community] texts, scholars/leaders/other people, or other sources that inform us about the environment? In your understanding, what does [religious text or other authority source] say about the relationship between people and the environment?
- How does your community use water?
- What kinds of water systems does your community space have?
- Do you worry about your community's water consumption? Have you tried any water conservation technologies or strategies within your community?
- How would you describe the current water situation in Cambridge? In the UK? What do you make of that?
- Water companies in the UK are struggling. They're worried that the UK might experience droughts in the near future and that we need to find ways to use water more efficiently and conserve water. What do you think Cambridge Water needs to know or understand better about [your community] in order to make changes that would work for your community and its members?

- In your opinion, what could be done to improve the environment? Thinking about water specifically, what could be done to improve water efficiency? What can individuals do? What could [interviewee's community organization] do? What could Cambridge Water do? What could the UK do?

For interviews with Water Industry Actors

Topics

- Experiences working in the water industry
- Perceptions of water
- Ideas about connections between religion and water

Questions

General

- How would you describe your role in [water company]?
- Tell me about some of the activities of your company. What do they do? Who do they serve? What are their goals and motivations?
- How old is your organization? How long have you been there?
- Where does your company get their information about environmental issues?
- How does your company find out about its customers and their needs? What are the challenges?
- Where do you get your information about environmental issues? For instance, what kinds of media, the local council, friends or family, etc.?
- What do you believe in?
- What are rights and wrongs for you? Examples? How do you know those things? How do you put that into practice?
- Do you have any figures in your life that are inspiration to you? They could be real or fictional.
- Are there any books, movies, TV programmes which have significance for you and influenced you?
- What, or who, is most important to you in your life?
- Where does the environment fit in these?
- Would you define yourself as a religious person or a person of faith? If so, how would you describe your religion/faith? How did you come to your religion/faith?
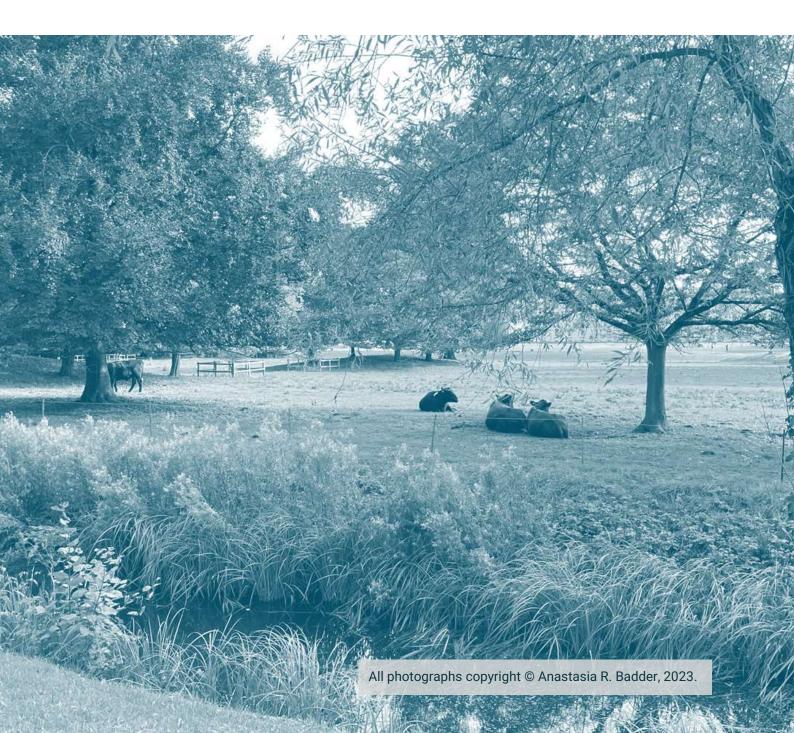
Water use

- How long have you lived in [wherever they live]? What brought you here?
- Since you've been here, have you noticed any changes in the weather? For instance, more or less rain, hotter or colder temperatures, etc.? What do you think has caused those changes? Has this affected you in any way? How have you responded to those changes?
- Where do you get your information about the environment and environmental issues? For instance, what kinds of media, the local council, friends or family, etc.?
- How would you describe your views on or relationship to the environment? What motivates those views/that relationship? Where have they come from?
- Walk me through your typical day – where do you go, what do you do, who might you encounter? Thinking back on your description of your day, when, where, and how do you use water in the day?
- At the moment, do you worry about water consumption? Have you ever tried any water conservation technologies or strategies in your everyday life? Such as?
- [If yes] what motivates you to be worried and/or try [technologies/strategies]?

- Thinking about your neighbourhood, how would you say your neighbourhood uses water? For instance, do people have gardens they water? Are there golf courses nearby? Are there any local bodies of water in your area that people visit?
- How would you describe the current water situation in [your region]? In the UK? What do you make of that?
- I've gotten the impression from our meetings so far that many water companies are worried that the UK might experience droughts in the near future and that we need to find ways to use water more efficiently and conserve water. What do you think Cambridge Water needs to know or understand better in order to make changes that would work for people?
- What do people need to know? What does the government need to know?
- In your opinion, what could be done to improve the environment? What could be done to improve water consumption? What can individuals do? What could [your water company] do? What could the UK do?
- How should we understand water? Is it a commodity? A right? A public resource?
- What is the value of water?

This report details the process, analysis and findings from a four-month study funded by the Ofwat Innovation Fund in partnership with Cambridge Water and other water industry stakeholders. With a focus on Muslim and Jewish communities in the Cambridge area, the report explores questions including:

❖ How do religious communities use water as part of their religious practice?

❖ What role does water play in religious lives?

❖ How do different communities value, understand and relate to water?

❖ What shapes religious uses and relations with water?

❖ How do religious and secular uses and understandings of water intersect, overlap, or articulate?

❖ What lessons might the water industry and water users at large learn from religious communities about sustainable water use?