

ASOR Ad Hoc Climate Impact Committee: Interim Report

April 2022

Introduction

The Ad Hoc Climate Impact Committee was formed in response to a call from ASOR President Sharon Herbert in November 2021 to study the climate impact of ASOR's activities—especially its Annual Meeting (hereafter AM)—and make recommendations to the Board of Trustees for how the organization can best reduce its contribution to this urgent, global problem. The President charged the committee with the following tasks:

- 1) To assess the carbon emissions of the AM and ASOR's other activities;
- 2) To evaluate the feasibility of the goal to make the AM carbon neutral by 2025, as articulated in ASOR's 2021-2025 strategic plan; and
- 3) To make recommendations to the Board of Trustees on how this might be achieved.

In this Interim Report, we summarize the committee's progress and findings thus far and outline our plans for the remainder of our one-year term. We offer preliminary conclusions regarding tasks 1 and 2 (assessment and evaluation). Further research and deliberation, following on the Board's reaction to this report, are needed before we finalize our recommended plan of action (task 3), which we will submit in our Final Report in October 2022.

Assessing ASOR's Climate Impact

Why Must We Act? The Impact of Climate Change on MENA's Cultural Heritage

Global climate change is primarily associated with fossil-fuel extraction and resulting CO₂ emissions since the beginning of the Industrial Revolution. A carbon threshold of 400 ppm was surpassed in 2016—a historically dangerous level not seen in 2.5 million years. The United States is the second-largest emitter, responsible for 15% of global emissions in 2021. Meanwhile, the ecologies of the Middle East and North Africa (MENA) are among the most vulnerable to the effects of climate change and the global ecological crisis.¹ Current and accelerating outcomes include failure of agricultural production in the fragile arid zones, depletion of water sources, and the immigration and displacement of communities as environmental refugees. These developments all exacerbate direct threats to cultural heritage sites, landscapes, and museums from unplanned development, infrastructure construction, and urbanization, as well as civil conflict and abandonment of heritage landscapes that lead to looting and terrorist targeting. This new climate regime deeply affects the work of archaeologists and heritage specialists, resulting in far greater challenges of fieldwork access and heritage preservation.

¹ Thompson, William R. and Leila Zakhirova, eds. (2022). *Climate Change in the Middle East and North Africa: 15,000 Years of Crises, Setbacks, and Adaptation*. Routledge: Oxon and New York.

ASOR's Mission and Potential for Climate Leadership

ASOR's mission statement includes: "supporting and participating in efforts to protect, preserve, and present to the public the historic and cultural heritage of the Near East and the wider Mediterranean and to raise awareness of its degradation." The history of archaeological research is deeply entangled with fossil-fuel extraction in the Middle East, as the missions and funding bodies behind colonial extraction and archaeological research have overlapped substantially. Taken together, ASOR's history and mission mandate taking a leadership role in advocacy for decolonization and decarbonization, thereby combating climate change and heritage destruction at the same time. This can begin—but not end—with the work of this Ad Hoc Committee. This work should be part of a long-term strategy to remediate the organization's climate impact and marry environmental and heritage protection in collaborations with local partners.

Our preliminary survey of peer organizations (e.g., AAA, AIA, EAA, SAA, AAR/SBL, etc.) found that ASOR is behind some organizations, but ahead of others in addressing climate impact. Many have established committees, but few have stated concrete steps toward mitigation. In addition to taking direct action to cut emissions, ASOR can lead in climate impact reduction among learned societies by publishing clear, accessible guidelines and action items (both institutional and individual) on its website. The work of this Ad Hoc Committee is already making an impact on the work of other professional organizations: for example, in January 2022, Ad Hoc Committee Member Ömür Harmanşah, reporting on our work at a meeting of the AIA Governing Board (of which he is an academic trustee), persuaded the Board to form a Task Force on Climate Change to pursue best practices in fighting climate change as an academic community.

How can ASOR take a leadership role in addressing climate change? This committee was charged specifically to investigate the carbon emissions of the AM, as a highly visible, carbon-costly event under the organization's direct control. During the pandemic years, ASOR, like most professional organizations, was forced to experiment with virtual and hybrid formats, presenting an opportune moment for rethinking the future of large-scale meetings. While recognizing that other activities may also have a significant climate impact (e.g., fieldwork, publications, year-round operations), the committee has thus focused on the AM. We began by estimating the carbon emissions from traditional in-person meetings.

Carbon Emissions of the Annual Meeting (AM)

Travel to the meeting venue contributes the great majority of the emissions created by ASOR's AM, at ca. 87%. A 2019 study² of six years of attendance data estimated the average annual carbon emissions of travel to the meeting at **820 metric tons**, or 0.89t per attendee, although the annual total varied between 597t (Baltimore, 2013) and 1110t (San Diego, 2014) depending on the **geographic centrality and connectivity of the host city** and the number of international

² Stephens, L. and Herrmann, V. (2019). Mitigating the climate impact of the ASOR Annual Meeting: A first appraisal. Poster presented at the Annual Meeting of the American Society for Overseas Research.

attendees. **International travel** contributes a majority (avg. 61%) of emissions, though international participants make up a minority (avg. 22%) of attendance.

To estimate the carbon emissions contributed by AM activities on-site, we used metrics from the Hotel Carbon Measurement Initiative (HCMI), considered a reliable industry benchmark. The HCMI estimates that the type of high-end hotels rented for ASOR’s AM produce 31.1 kg of CO₂ per room per night. A 1000-person, 4-night AM at such a hotel would thus produce roughly 124,400 kg or **124.4 metric tons** of CO₂ (not including off-site events).

In summary, we estimate the total carbon emissions of the ASOR Annual Meeting at ca. **944 metric tons**. This is the benchmark for the emissions reduction and offsetting required to make the meeting carbon neutral. It is clear that—just as reducing carbon-heavy travel is one of the most impactful ways that individuals can cut their personal emissions³—reducing the necessity for long-distance air travel will be the most effective strategy for targeting the AM’s emissions, although changes at the meeting site can also be meaningful.

Evaluating the Feasibility of Carbon-Neutrality

Strategies for Emissions Reduction

Several possible strategies for reducing AM-related carbon emissions have been discussed by the committee and are currently under study. Recognizing that air travel by participants is the single largest contributor to the AM’s related carbon emissions, the committee has discussed several possible strategies relating to the format and location of future AMs that target reducing the amount and distance of participant air travel.

Possible **format changes** include:

- Virtual-only meetings;
- Alternating in-person and virtual meetings;
- Continuing the dual in-person and virtual format of meetings followed in 2021; or
- Distributed synchronous or asynchronous meetings at regional/continental hubs.

Regarding the **location** of future AMs, potential strategies include choosing host cities:

- Geographically central to AM participants;
- Connected to rail networks;
- Near hub-airports that require relatively few connecting flights to reach; and/or
- Featuring user-friendly public transportation systems.

The committee has also discussed the feasibility and utility of including a **hotel’s sustainability initiatives** and willingness to support net-zero meetings among the selection criteria when choosing conference venues. We also developed a list of sustainability requests to ask potential

³ Wynes, S. and Nicholas, K. (2017). “The climate mitigation gap: education and government recommendations miss the most effective individual actions.” *Environmental Research Letters* 12(7).

venues about during negotiations (e.g., composting programs, elimination of single-use toiletries, plant-based catering, etc.).

Finally, the committee discussed the importance of **incentivizing** and facilitating sustainable choices of AM attendees. Possible strategies include incentivizing train travel and carpooling, encouraging the purchase of carbon-offsets, and providing paperless and plant-based options. The committee has already provided text and resource links for the [AM 2022 travel webpage](#) that prioritize more sustainable travel methods and promote carbon offsetting.

Carbon Offsetting as a Supplementary Strategy

The committee is agreed that ASOR should attempt to reduce the meeting's carbon emissions as much as is feasible before turning to carbon offsets, as reduction must be central to long-term sustainability strategies. Carbon offset programs must furthermore be chosen with care for effectiveness, additionality (the emissions reductions would not have occurred without the offset credits), and sustainability, and the costs can be significant. Further discussion of the extent of offsetting required, best practices in offsetting, and how ASOR can cover the costs involved are important agenda items for this committee in the next few months.

Next Steps

In the coming months, the committee plans to model the projected effect on emissions from each of the above-mentioned strategies for reduction or mitigation and weigh these against projected costs, as well as logistics of implementation and potential positive or negative effects on participation and engagement, before formulating our recommendations.

In addition, the committee plans to offer recommendations for further research and action on reducing ASOR's climate impact beyond the AM, including in the areas of publications and archaeological fieldwork.

Interim Conclusions

The climate crisis is an urgent challenge of global scope, requiring an immediate response by every person and institution and in every sphere of activity. ASOR's mission and history are directly implicated, and the organization can lead by example in recognizing its own contribution to the problem and taking action to remediate it, potentially magnifying the impact of its efforts by sparking more widespread change among learned societies. Reducing the carbon emissions of the AM may be the most visible step ASOR can take toward this effort and is therefore an excellent starting point. Recognizing that archaeological fieldwork is another major contributor to the climate impact of ASOR members, we are resolved that action surrounding the AM is only one part of a broader change to the culture and structures of our field needed to meet present and future challenges. Starting with the AM can signal to our members the kinds of changes that will be required.

We estimate the current annual carbon emissions of the AM at nearly 1 kiloton. A variety of options are available for ASOR to reduce this number significantly. Under current structural conditions, and with preliminary indications of a strong preference among members to continue in-person meetings, however, any plan to achieve carbon-neutrality by 2025 must combine reduction with a carbon-offset strategy. Nevertheless, as mentioned above, we strongly recommend that carbon offsets play a *secondary* role in this plan.

Our plan for the remaining months of our tenure is to weigh the following questions and finalize our recommendations to the Board:

- 1) What meeting format can strike an optimal balance between effective reduction of associated carbon emissions and sustaining the experience of intellectual exchange and collaboration offered by an in-person meeting?
- 2) What carbon-offset strategy to close the remaining gap with the goal of carbon-neutrality will be most effective, sustainable, and affordable? What recommendations for best practices in carbon offsetting might we make to ASOR members and AM attendees?
- 3) What budget allocations (beyond members' voluntary contributions, monetary and non-monetary) will be needed to achieve these goals?

The Ad Hoc Climate Impact Committee concludes that the goal of carbon neutrality for the AM is both important and feasible. Significant but attainable commitment and changes to the status quo will be required. We expect many ASOR members will commit to the culture change that this will entail, and a corresponding organizational commitment is essential to retain current members and attract a new generation. The committee looks forward to receiving guidance on the level of commitment we can expect from the Board.

Co-Chairs

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