Keeping Cool

SUSTAINABLE PRACTICES RESEARCH GROUP

The use of air-conditioning in the UK is increasing: in focusing on this case, the 'Keeping Cool' project investigated an area of potentially escalating demand for energy. The outdoor climate has not changed radically in the last few years but air conditioning is being installed and used in more and more buildings. This project sought to understand these trends. The research involved interviews with 26 occupants and building managers, and with organisations involved in installing and maintaining cooling systems in offices, hospitals and hotels.

Insights

- Our research showed that the spread of air conditioning relates to changing practices in the settings we studied. For example, we discovered that air conditioning was sometimes installed to keep things, not people, cool. For reasons that are themselves interesting, computer equipment and technologies like those used in hospital intensive care units are designed to work best at 22°C. Since this is vital equipment for health care and office working, and since it is prone to fail if it over-heats there is no option but to keep it cool.
- We learned that cooling was sometimes introduced to counter the effects of more intensive use of space: it was 'needed' because more people, and more heat generating and heat sensitive devices and appliances, had been packed into the same room. As such it is part of wider processes reshaping working lives and property values.
- We found that in hotels and offices, air conditioning figures as a sign of quality and is important for this reason alone. Air conditioning has become part of the product that is judged and evaluated: it is used to distinguish one hotel room or office block from another. In some such situations, air conditioning is not an option: it is needed to maintain or establish market position.

Significance

- The Keeping Cool project demonstrates that there is no single explanation for how and why air-conditioning is being installed. In each of the settings we studied the relation between technology and practice—that is, between air conditioning and what people do—was different. Installing and using air conditioning is not simply a matter of personal preference or human comfort, nor is it simply about cooling as if that was a practice in its own right.
- While the reasons for acquiring air conditioning differed in hospitals, offices and hotels, these diverse pathways converged around an increasingly standardised expectation that normal room temperature is 22ºC. 22ºC has become the thermal arrangement, the measure of comfort, and the environment in which many practices are enacted.
- Maintaining such conditions indoors, and doing so all year round, is extremely resource intensive and it is important to remember that 22ºC is neither natural nor inevitable. In combination, our studies suggest that the spread of air conditioning is related, at a more generic level, to the standardisation of the indoor climate and thus of experiences and expectations, and to the corresponding, self-reinforcing, standardisation of technologies optimised for 22ºC.

Implications for Policy and Practice

- Most energy related policies focus on making buildings and systems more efficient. The project suggests that the much greater prize for policy could lie in challenging and unsettling the assumption that indoor environments should be kept at 22ºC.
- There are many opportunities to address this issue: through revising methods of modelling and predicting future energy demand (do not assume 22ºC); by refusing to heat or cool government properties between, say, 20 and 28ºC (as is the case in Japan); by working with IT manufacturers (to change the way IT is designed and optimised); by actively responding to seasonal change; promoting clothing as a form of thermal management; and challenging the idea that entire buildings should be maintained at a uniform temperature.
- More specific strategies to stem the use and installation of air-conditioning and to limit associated energy use/carbon emissions depend on careful and subtle intervention in collaboration with the many different organisations that have a stake in shaping practices like those of hotel management, nursing and office work.
- It is possible to imagine air conditioning moving into UK domestic settings, in part through the standardisation of indoor climates that we have observed. This would be deeply problematic for future patterns of energy consumption. In this case the policy challenge is not about promoting energy efficiency: it is about stemming what might become a future trend.

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