

TRANSITIONS IN PRACTICE

climate change and everyday life

Elizabeth Shove, ESRC climate change leadership fellowship





apple

A FRAMEWORK FOR PRO-ENVIRONMENTAL BEHAVIOURS

Defra January 2008

This report sets out a framework for Defra's work on pro-environmental **behaviour**. It pulls together evidence on public understanding, **attitudes** and behaviours; identifies behaviour goals; and draws conclusions on the potential for **change** across a range of behaviour groups.



balloon

The headline behaviour goals

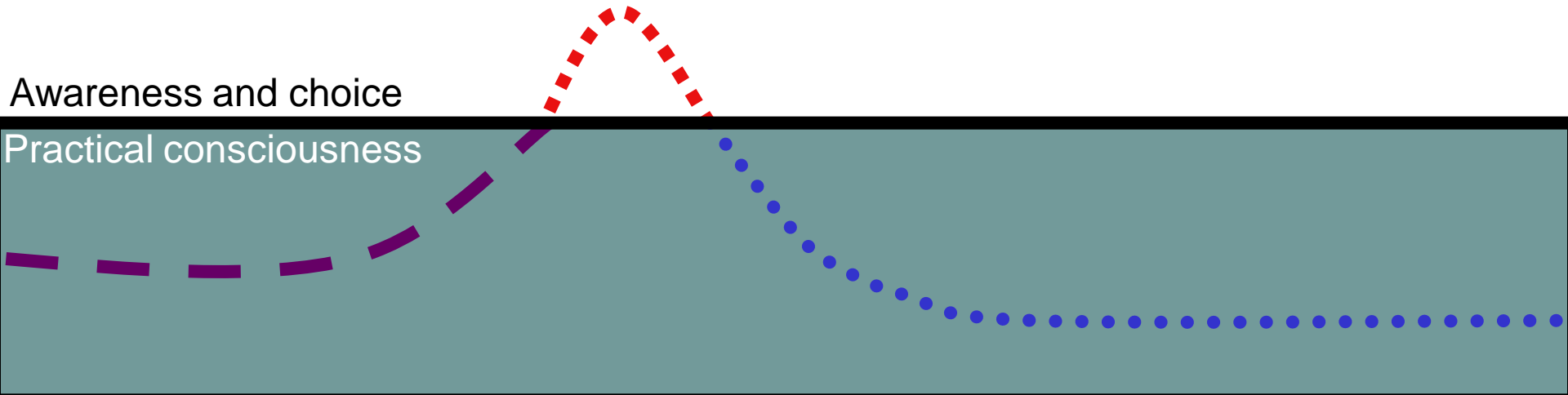
-**Install** insulation -Better energy management -Install microgeneration-**Increase** recycling -**Waste less** (food)-**More responsible** water usage-Use more efficient vehicles -Use car less for short trips -**Avoid unnecessary** flights (short haul)-**Buy** energy efficient products-**Eat** more food that is locally in season -**Adopt lower impact** diet



cake



Awareness and choice
Practical consciousness



Informs a lot of discussion about how to engender sustainability
Considers habits in isolation
Often implausible in terms of daily routines e.g. comfort, cleanliness



choice, change, belief, attitude, information, behaviour

But what if we see consumption as
consequence of ordinary practice?

What is required in order to be a
'normal' member of society?

How does this change, and with
what consequence for
sustainability?

Comfort and indoor environments

it is becoming normal to expect 22 degrees C inside, all year round, all over the world and whatever the weather outside

Cleanliness and showering

it is becoming normal to shower once or twice a day (in the UK, the amount of water used for showering is expected to increase five fold between 1991-2021)

Laundering

From once a week to once a day or more, but with lower temperatures than ever before

Similar trends –
naturalisation of need

but possibly
different dynamics

and different
implications for the
future

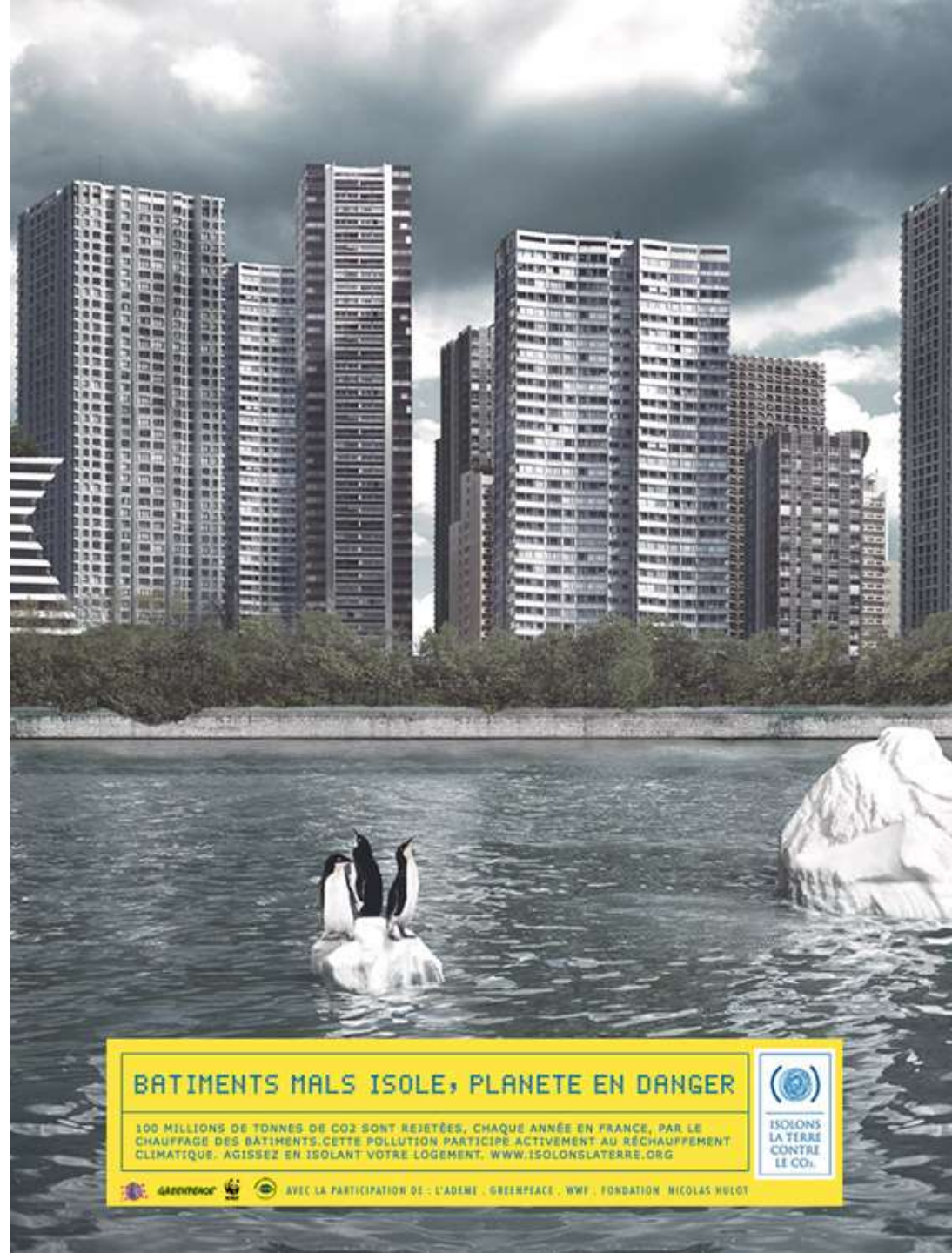
climate change: indoors and out

In Europe primary energy consumption by buildings is around 50% of total energy consumption.

Almost 50% of this energy is used in the provision of indoor climate control for occupant comfort.

The costs of “comfort”

Fergus Nicol. Editorial /
Energy and Buildings 39
(2007) 737–739



BATIMENTS MAL ISOLÉS, PLANÈTE EN DANGER

100 MILLIONS DE TONNES DE CO₂ SONT REJETÉES, CHAQUE ANNÉE EN FRANCE, PAR LE CHAUFFAGE DES BATIMENTS. CETTE POLLUTION PARTICIPE ACTIVEMENT AU RÉCHAUFFEMENT CLIMATIQUE. AGISSEZ EN ISOLANT VOTRE LOGEMENT. WWW.ISOLONSLATERRE.ORG



ISOLONS
LA TERRE
CONTRE
LE CO₂



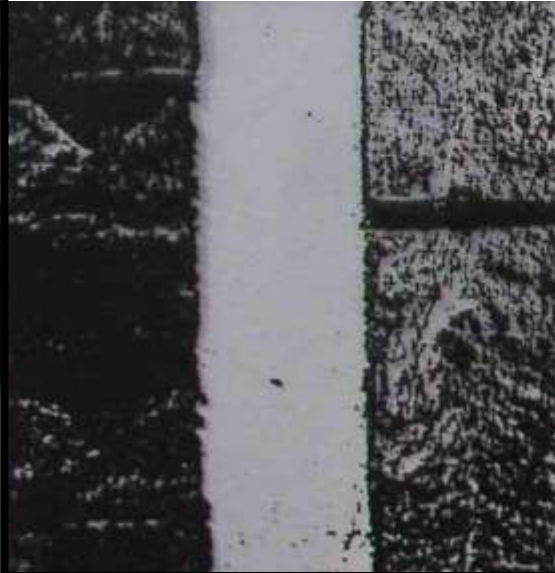
greenpeace



AVEC LA PARTICIPATION DE : L'ADEME, GREENPEACE, WWF, FONDATION NICOLAS HULOT

← Outdoor weather
Indoor weather →

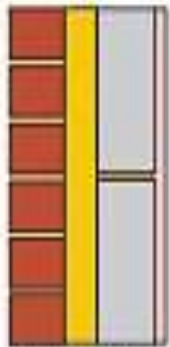
Heating, cooling and the human body



The changing relation between indoors and out

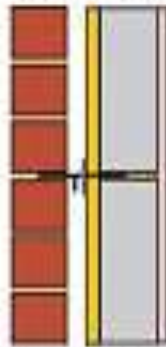


filled cavity



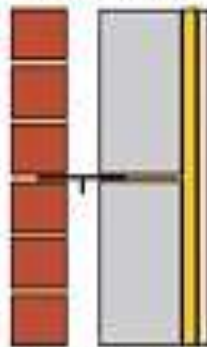
50mm cavity batts
100mm aerated block
13mm lightweight plaster

partial fill

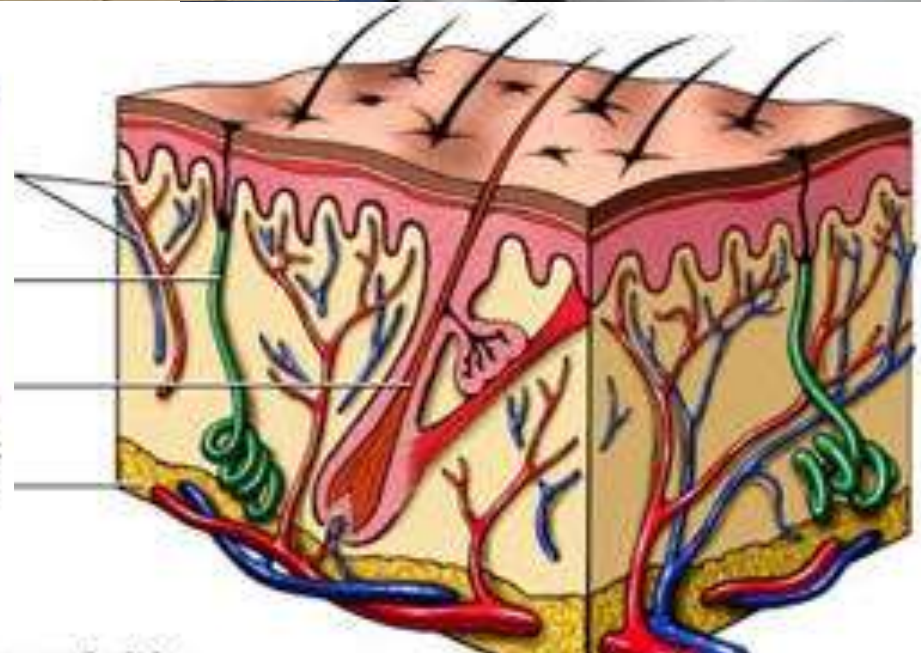


25mm cavity boards
100mm aerated block
13mm lightweight plaster

clear cavity



125mm aerated block
25mm thermal board



How come
22
degrees C?

physical
parameters and
cultural
concerns

sea breeze
or mountain air

what climate
to provide?

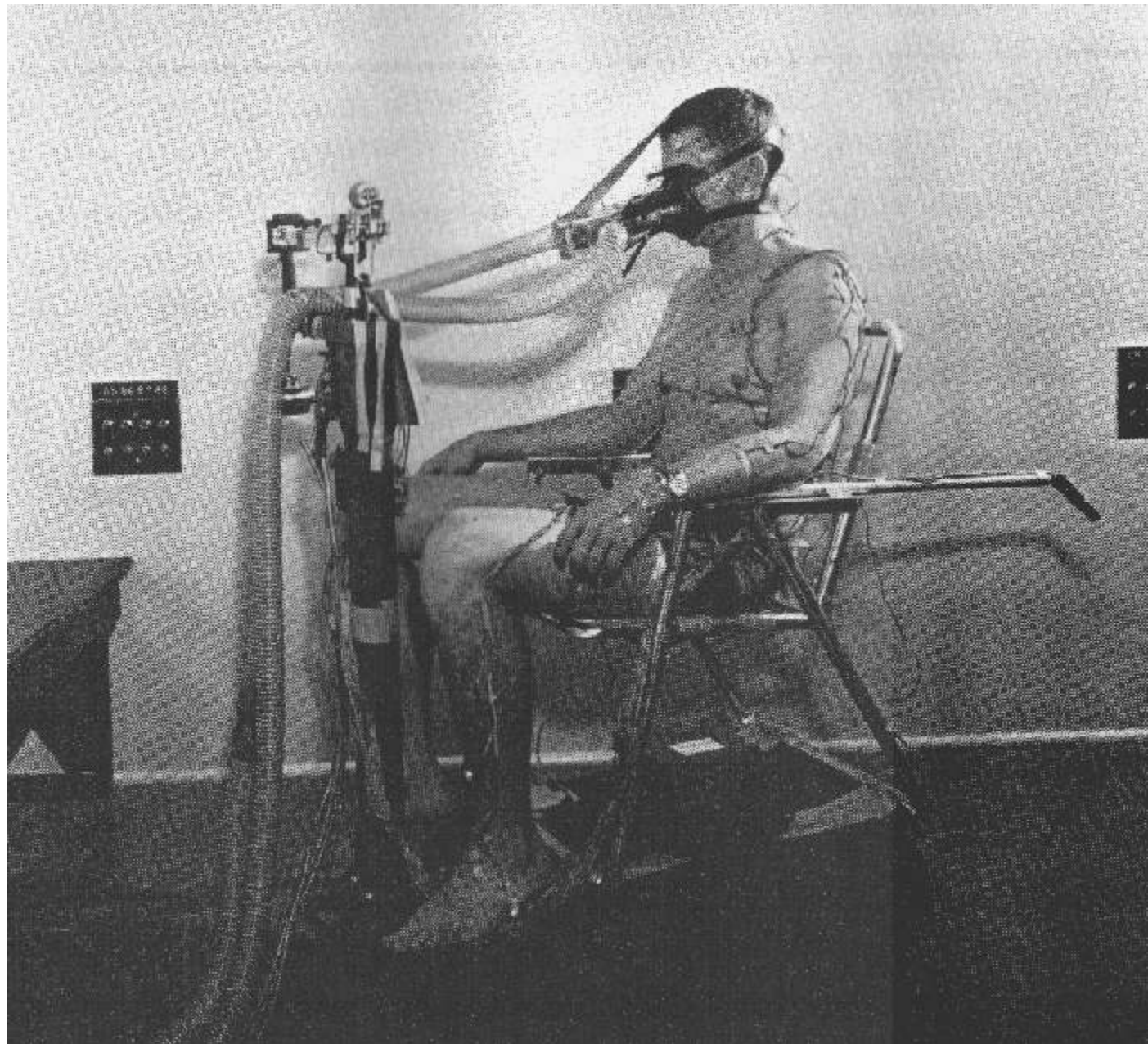
Controlled ... IN ONE HARNESS ...
THE SIX "CLIMATIC FACTORS"
OF TRUE AIR CONDITIONING



MINNEAPOLIS HONEYWELL CONTROLLERS, VALVES, RELAYS, THERMOSTATS AND OTHER UNITS PROVIDED FOR SIMULTANEOUS CONTROL



Defining
comfort





Professor Fanger in his "Doctor-dress" at a reception at DTU, June 14, 2001

Standardising comfort, sweat and smell: the clo and the olf

The standard amount of insulation required to keep a resting person warm in a windless room at 70 °F (21.1°C) is equal to one **Clo**.

Units were chosen so that 1 clo would be roughly the insulating value afforded by a man's underwear and a lightweight suit, or "a heavy top coat alone."

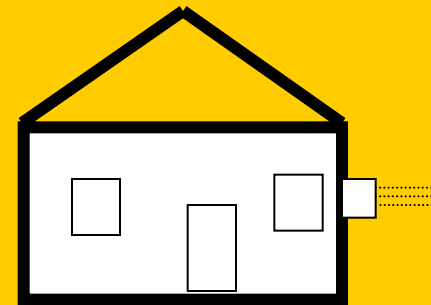
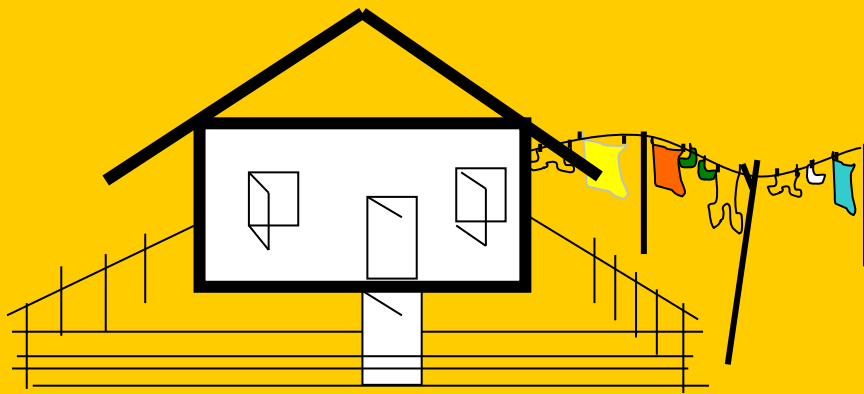
The **Olf** is a unit used to measure the scent emission of people and objects.

One olf is defined as the scent emission of an "average person", a sitting adult that takes an average of 0.7 baths per day and whose skin has a total area of 1.8 square metres; the scent emission of an object or person is measured by trained personnel comparing it to normed scents.

Standardising science also matters for ventilation rates and energy consumption.

Path dependence and comfort

- air-conditioning: from luxury to necessity
- locked into building design: no eaves, no porch in exchange for central air conditioning
- locked into ways of life: no veranda, no pools, no lemonade





YORK

LPG
HIGHLY
FLAMMABLE
NO SMOKING
NO BARE LIGHTS

63335555

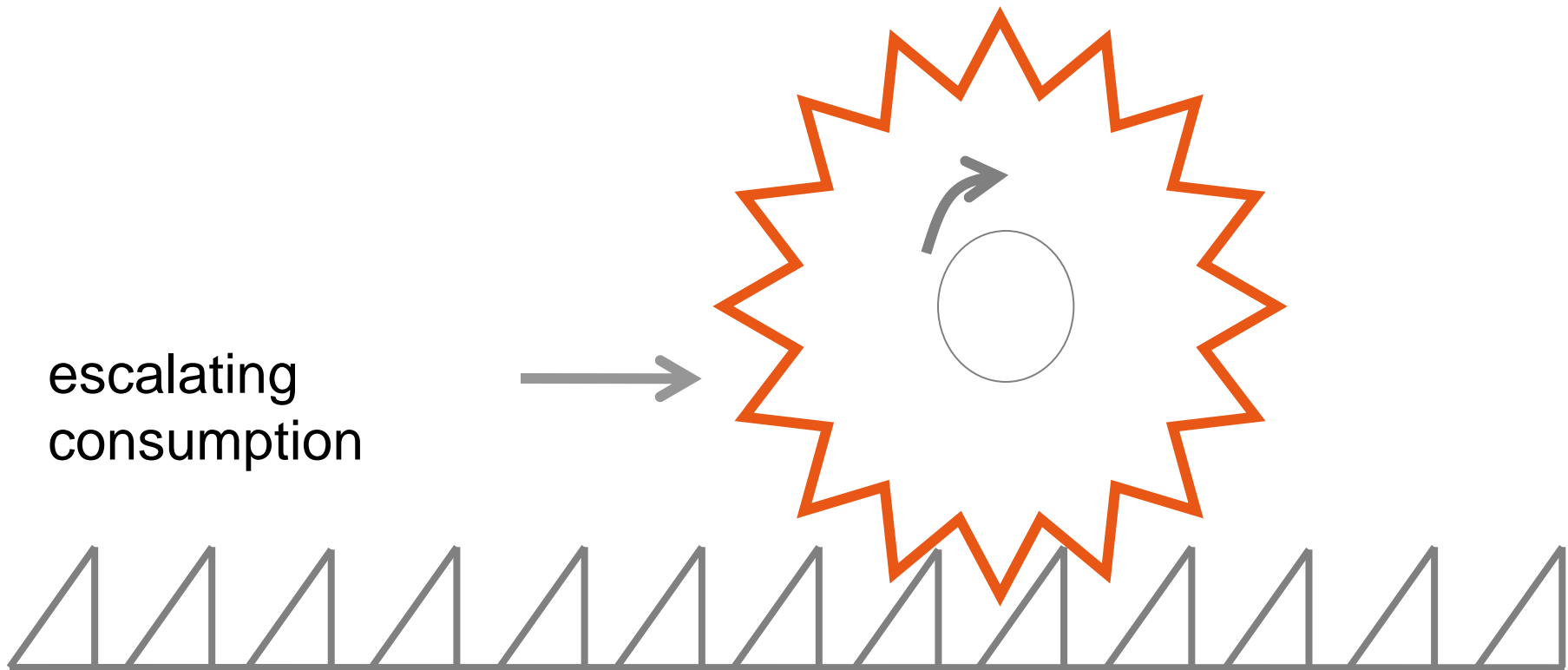
SAFETY
WARNING

If a building is set, regularly at, say, 22 °C the occupants will choose their clothing so that they are comfortable at that temperature.

If enough buildings are controlled at this temperature, it becomes a norm for that society at that period of its history, and anything different is regarded as 'uncomfortable'

(Humphreys 1995: 10)

escalating
consumption



GETTING WET ALL OVER

- **something to be avoided: leaky bodies, water and danger**
- **an occasional activity undertaken by a small section of the population**
- **a regular practice for most people**
- **a daily routine for most people**

The needle shower

1850s, Motts Catalogue

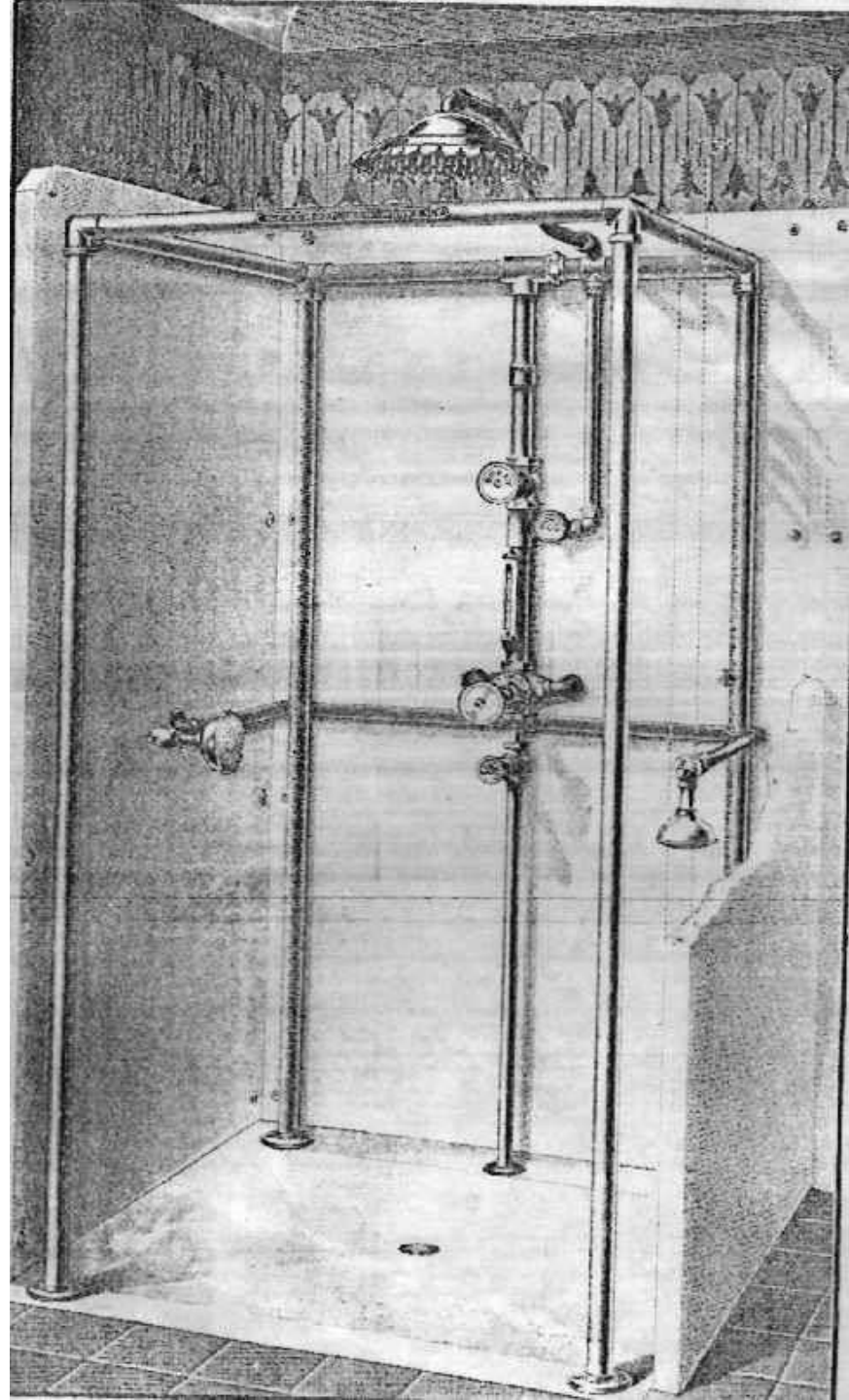
'a most complete bath ...the four different sprays may be used together or separately, at the immediate control of the bather'

Not suitable for women (too bracing)

Features the latest thermostatic controls

Offers hydrotherapy in the home

Incredibly expensive



Bathing and civilisation

National identity

Cleanliness and
godliness

Dirt and social
disorder

Sanitary science

Moral duty





Bathroom
infrastructure



Lots of
stuff



Ideal Home 2003

exhibition model includes

Telephone

Radio

Seat

Aromatherapy option

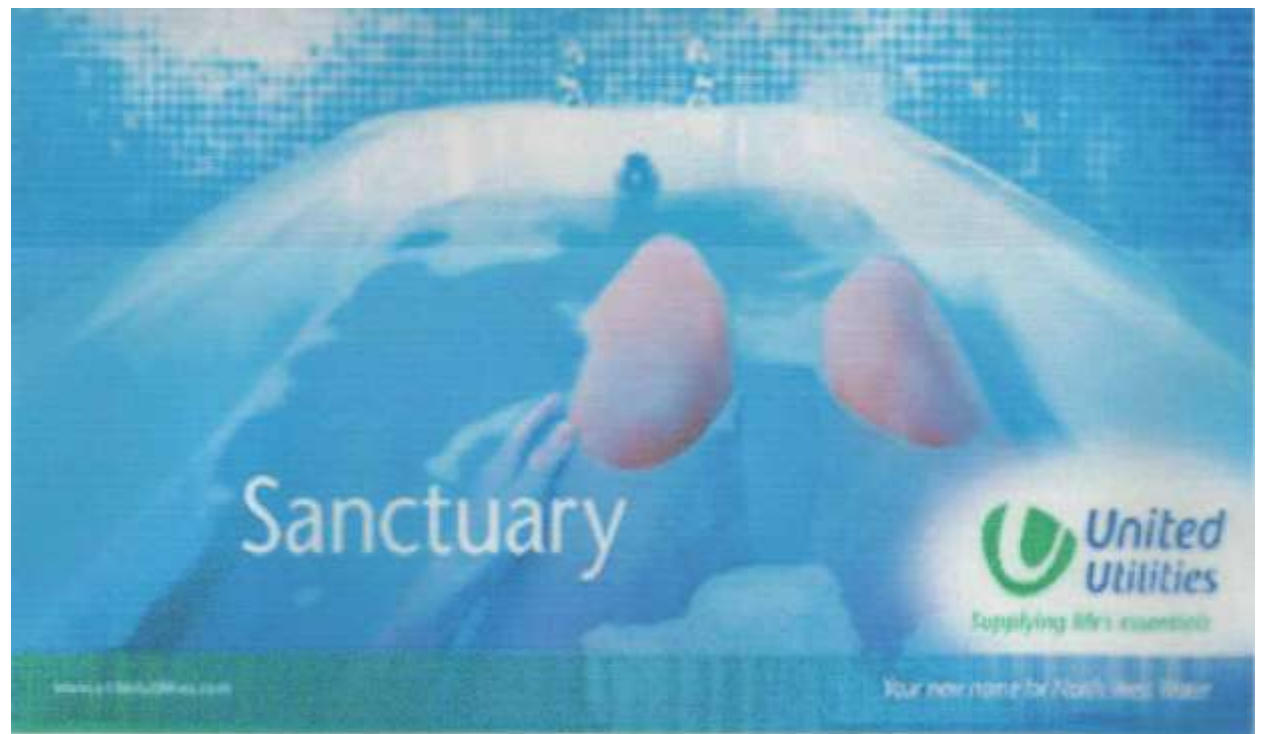
Steam option

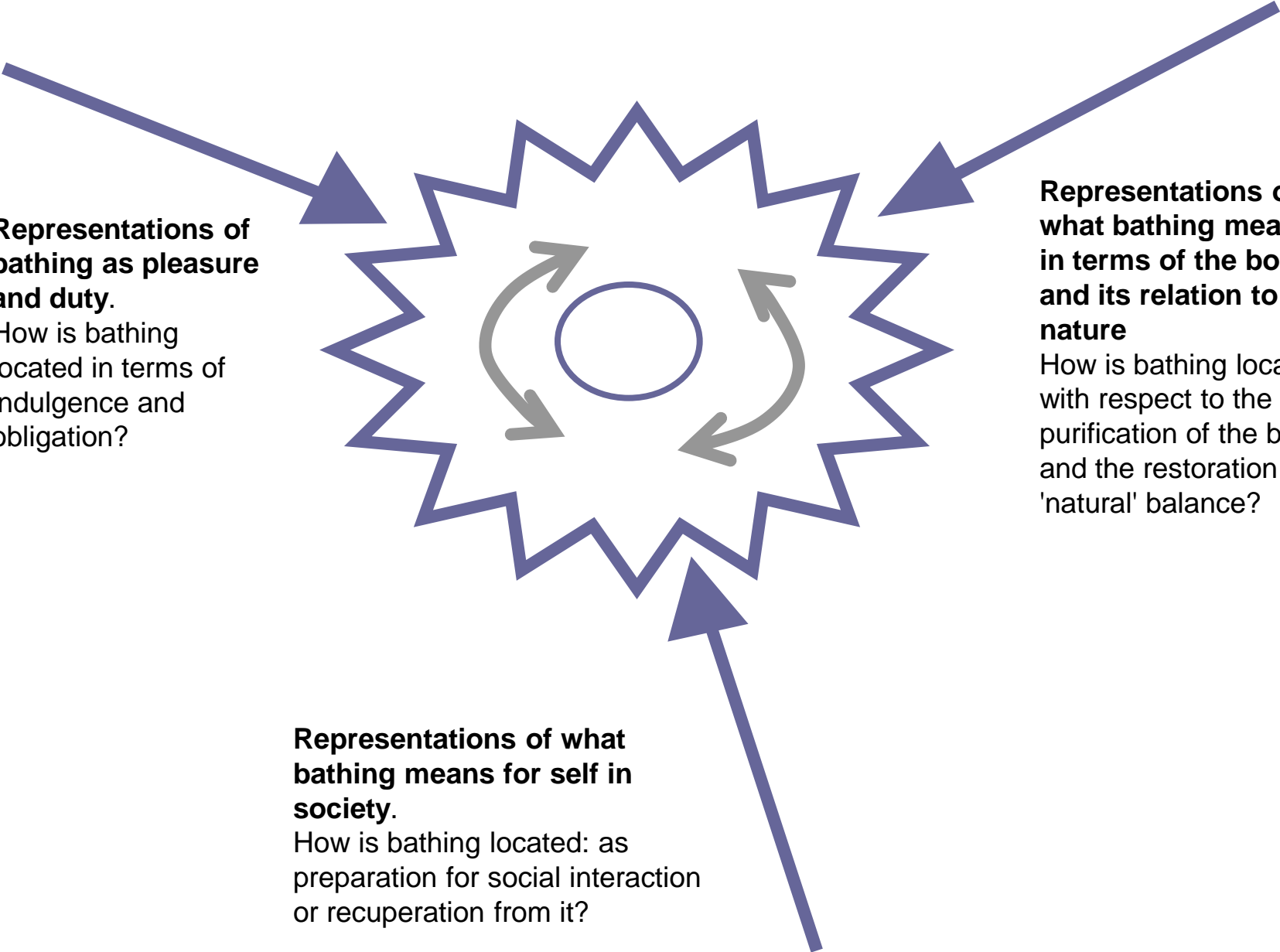
De-luxe version for two
persons

Offers instant
relaxation, quick
release from stress



What might
showering
become?





Representations of bathing as pleasure and duty.

How is bathing located in terms of indulgence and obligation?

Representations of what bathing means in terms of the body and its relation to nature

How is bathing located with respect to the purification of the body and the restoration of 'natural' balance?

Representations of what bathing means for self in society.

How is bathing located: as preparation for social interaction or recuperation from it?

laundering

Increasing frequency

- 21% of per capita domestic indoor water use in the USA and 12% in the UK
- 40-60 litres per wash in the UK but 80 in the USA
- 274 cycles per year in the UK but 340+ in the USA

Decreasing temperatures

- 92% homes have washing machine in the UK
- 1970s - 25% washed at 90 degrees C.
- 1998 - 7% washed at 90 degrees C.

Freshness and frequency

I So do things feel different as well when you haven't washed them?

R I feel different -

I I know I'm clean - I know I've put all clean clothes on - so I'm alright - do you know what I mean? . . . it wasn't dirty, it wasn't smelly or anything, it just really wanted freshening in my mind

From disinfection to reflection

A generation ago, 'boiling was considered essential for getting the wash really clean and germ free'

Whiteness as the measure of cleanliness – the reflectometer

“Whatever comes out of the machine, to me that is clean”

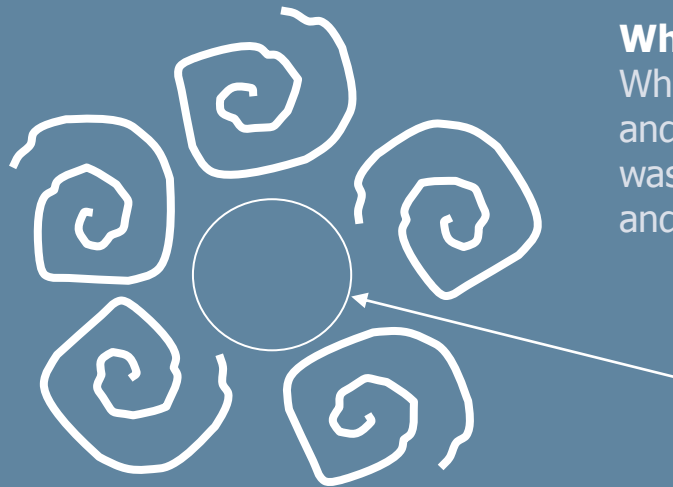
Laundry as a system of systems

What are the tools of laundering?

What devices, appliances and chemicals are involved?

How is laundry done?

What steps and stages? What skills and expertise? Who does it?



When to launder?

What are the cycles and flows of washing, wearing and appearance?

Understandings of service – of what it means to do the laundry – emerge as consequence of constituent practices, technologies and conventions

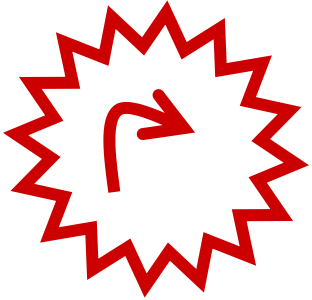
Why launder?

For sensation, display, disinfection, deodorisation or routine.

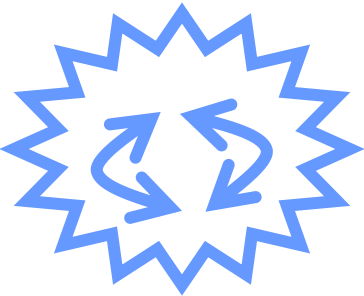
What is there to launder?

What stocks, fabrics and types of clothing are involved?

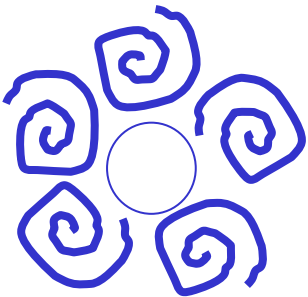
Ratchet



Pinwheel



Systems of systems



Questions for energy policy

to which energy-consuming practices do these models apply?

In which direction and at what rates are ratchets, pinwheels and systems of systems turning?

What are the 'windows' of opportunity for policy intervention in each case?

Could this be the
future of comfort?



スーツ

COOLBIZ



28℃

私たちはチーム・マイナス8%の一員として
地球温暖化防止を推進するため、
消費時の室温を28℃にしています。
5月では、28℃で快適に仕事をするため
スーツからCool Bizへ衣替えしています。



セイコーインスツル株式会社
E-4-0177001

セイコーインスツル グループ



The future of clothing care?

Freshening machines - not washing at all

Re-introduce commercial laundries -
electronic tagging

Renting clothing, shifting fashions
(commercial and domestic cleaning), fully
serviced clothing

From foul to fragrant

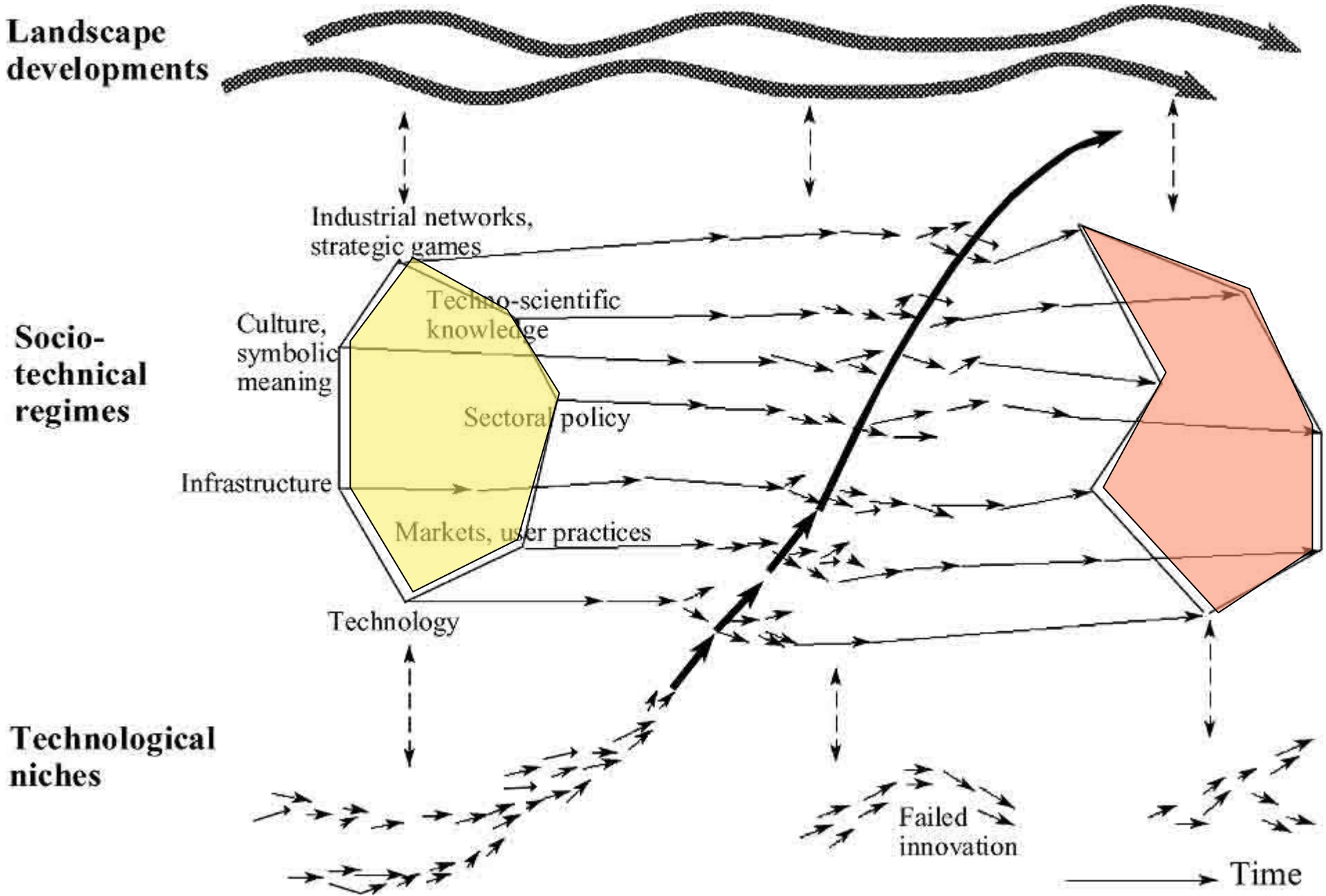
Textures and textiles

Merino Fresh

Is a revolutionary concept. This technology enables woven products made from merino wool, such as suits, trousers or skirts, to be simply cleaned and refreshed using a domestic shower.

Australian wool
innovation





Geels 2002.

Social theory of practice: explaining daily showering

Image

Regeneration
of whole body
and of civic
order

Stuff

Public
provision,
collective
infrastructure

Procedure

Collective
event, shared
social
calendar

Image

Moral-medical
discipline,
disease and
disorder

Stuff

State
investment in
public health

Procedure

Regular
private habits,
weekly
schedules.

Image

self image,
invigoration
freshness, and
fitness

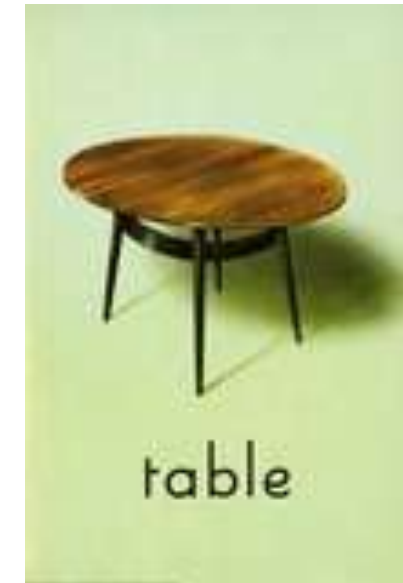
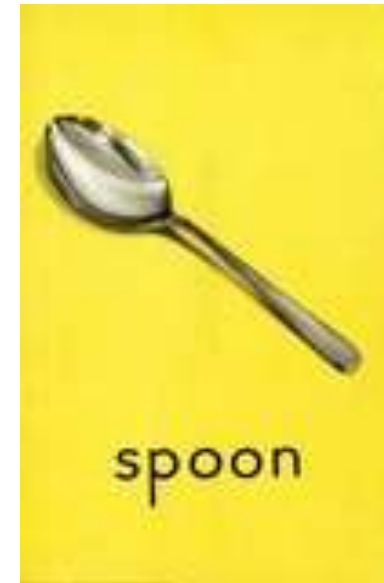
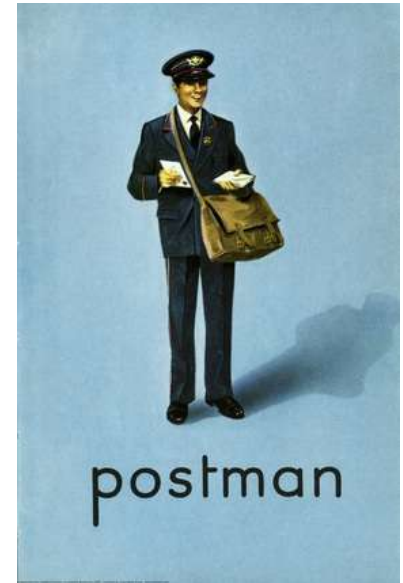
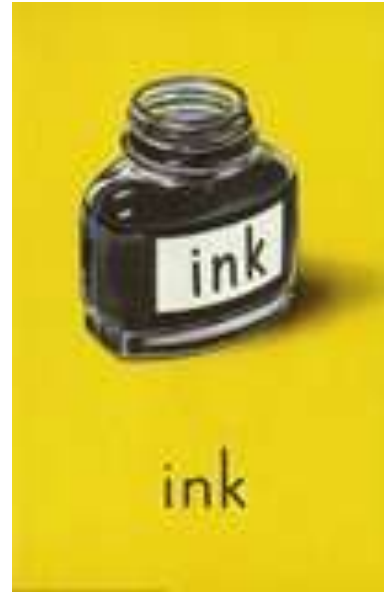
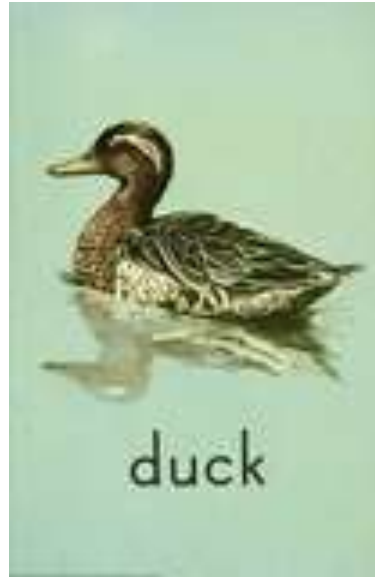
Stuff

Instant hot
water, private
bathroom(s)

Procedure

Fragmented
moments,
speed and
convenience

*Requires an
extended
vocabulary*



Routine/ordinary consumption

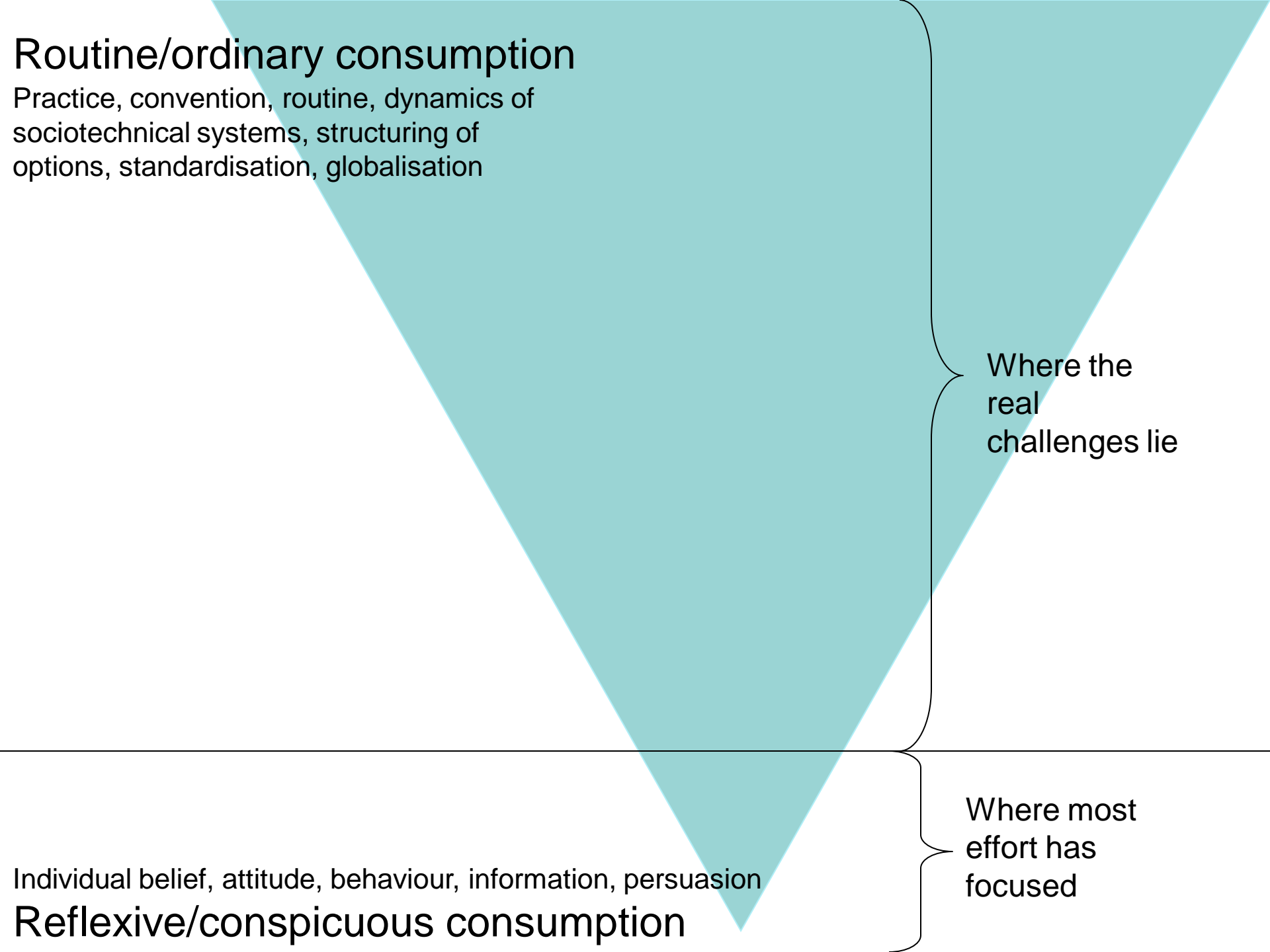
Practice, convention, routine, dynamics of sociotechnical systems, structuring of options, standardisation, globalisation

Where the real challenges lie

Individual belief, attitude, behaviour, information, persuasion

Reflexive/conspicuous consumption

Where most effort has focused



But old habits die hard.....

WORLD ENVIRONMENT DAY 5 JUNE 2008



TOWARDS A LOW CARBON ECONOMY



UNEP

UNITED NATIONS ENVIRONMENT PROGRAMME

Twelve Steps to Help You Kick the CO₂ Habit

“The day's agenda is to give a human face to environmental issues; empower people to become active agents of sustainable and equitable development”

.... Or, “The day’s agenda is to position CO₂ as an matter of personal addiction, thereby denying the social and institutional reproduction of habit, or any wider politics of consumption, production and demand”