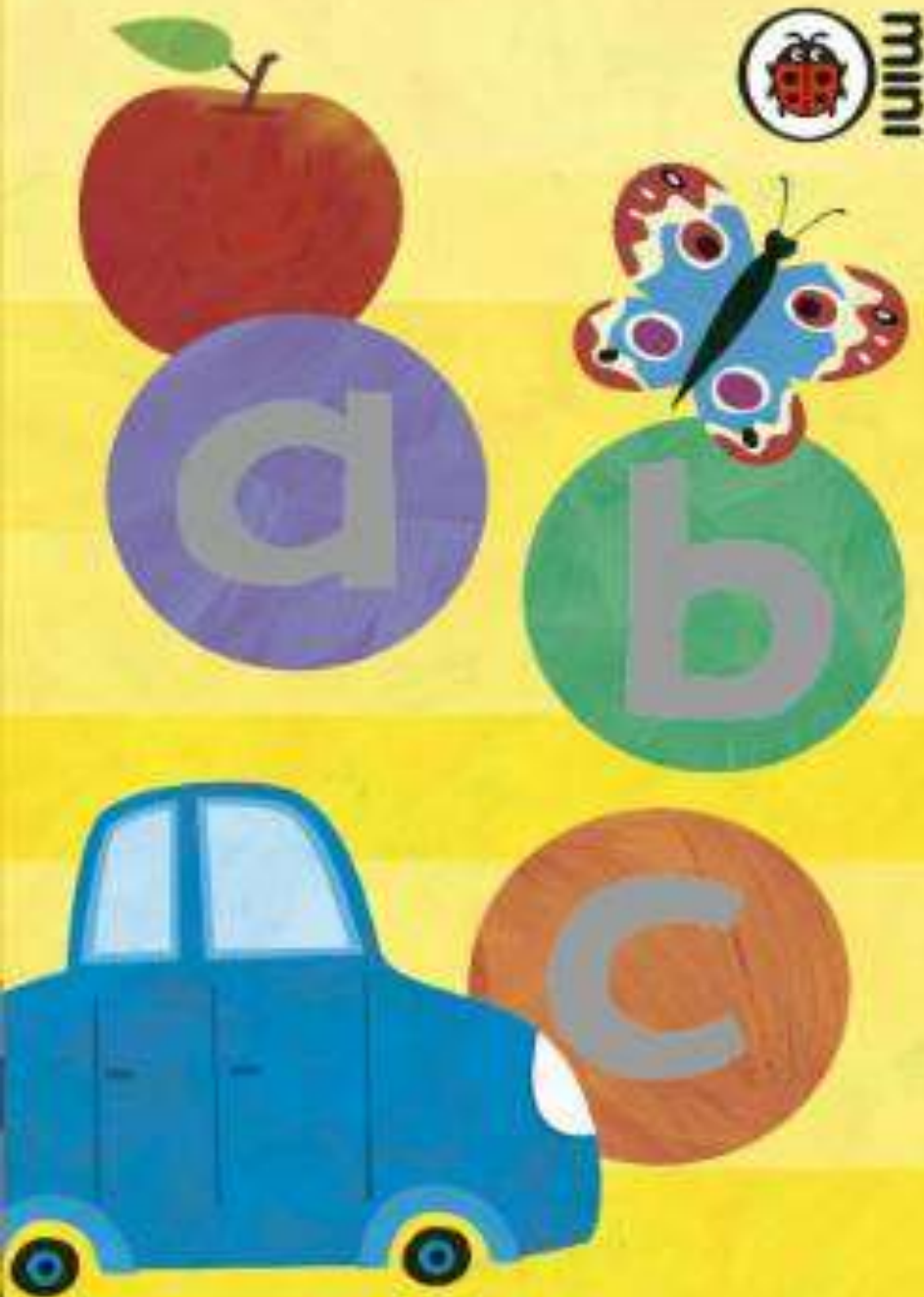


TRANSITIONS IN PRACTICE

climate change and everyday life

Elizabeth Shove, ESRC climate change leadership fellowship





the
ABC of
sustainable
behaviour
and climate
change policy

A

is for Attitude

Individuals have attitudes.

Attitudes towards personal consumption, waste and responsibility need changing

Attitudes are changed by persuasion and information.

Attitudes drive behaviour.



apple

B

is for Behaviour

Behaviour is what individuals do.

Behaviours need changing.

*Behaviours are driven by attitudes
and prices.*

People choose how to behave.



balloon



C

is for Choice

Choices are made by individuals.

If individuals chose not to use so much energy, water and other natural resources we'd not be in the fix we are.

Policy makers need to encourage individuals to make different choices.



cake



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

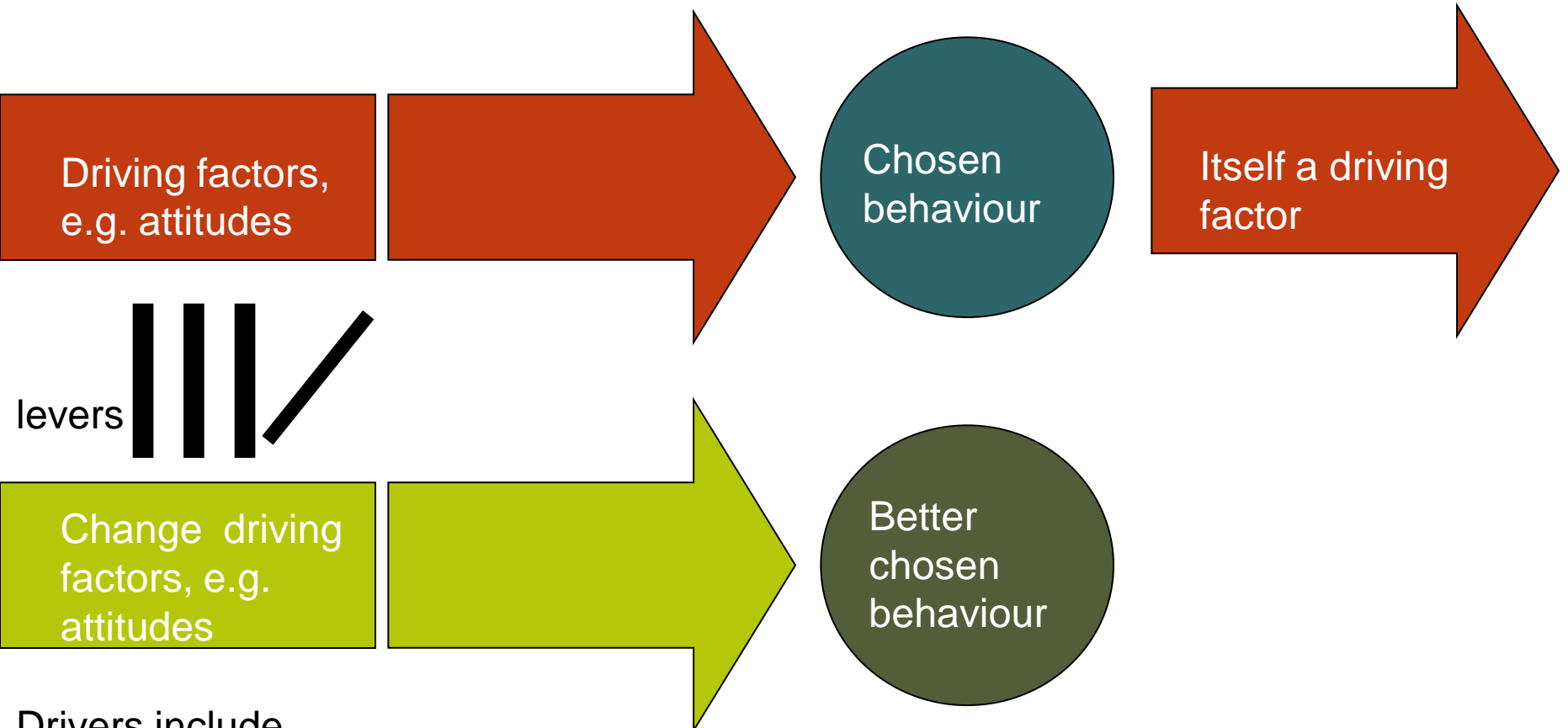
The headline behaviour goals

-**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



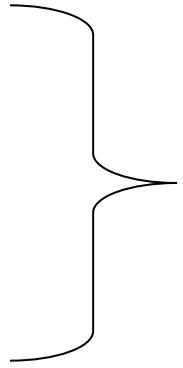
cake

Representation of social change

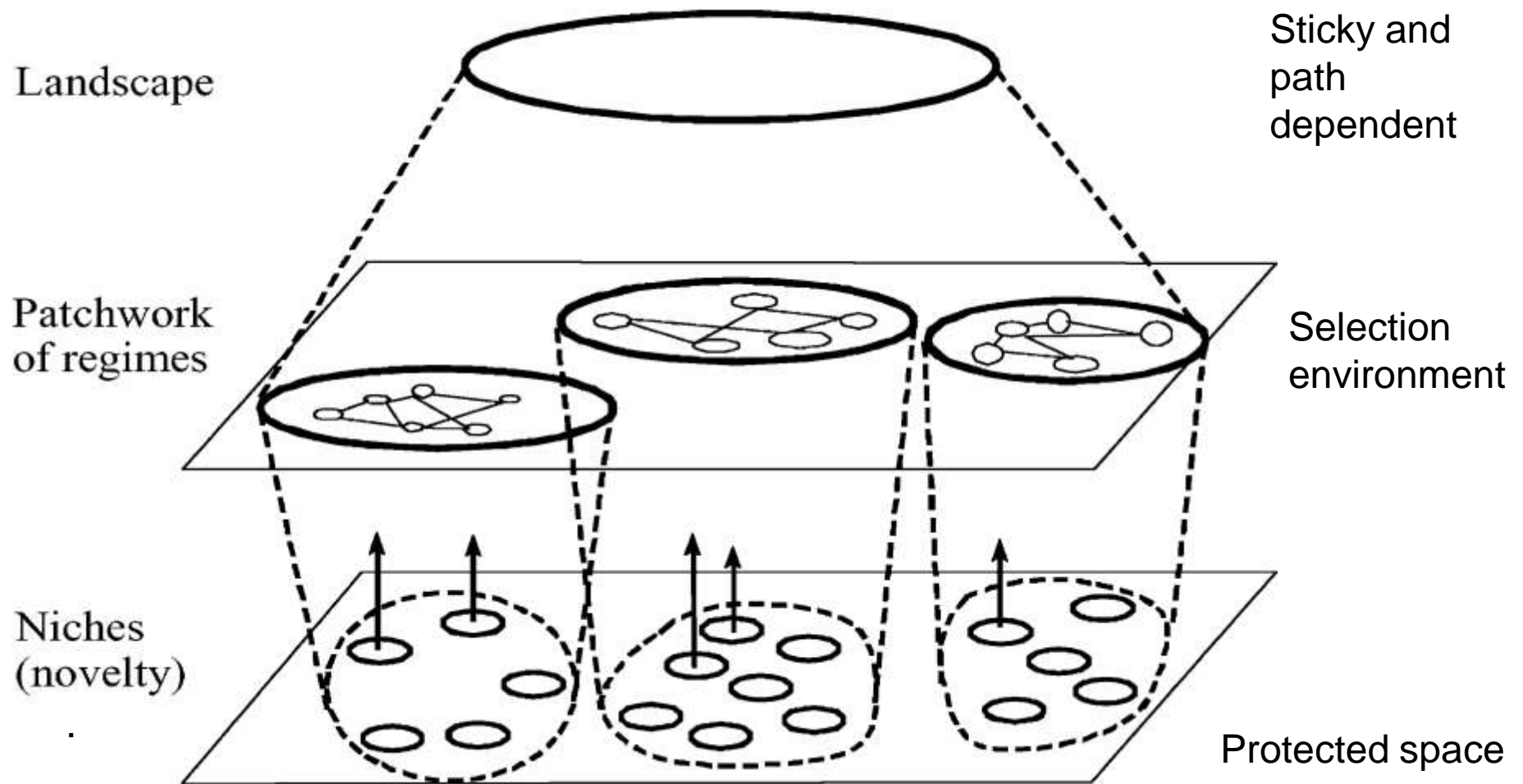


Drivers include

- Attitudes
- Society
- Economics
- Other people
- Habit

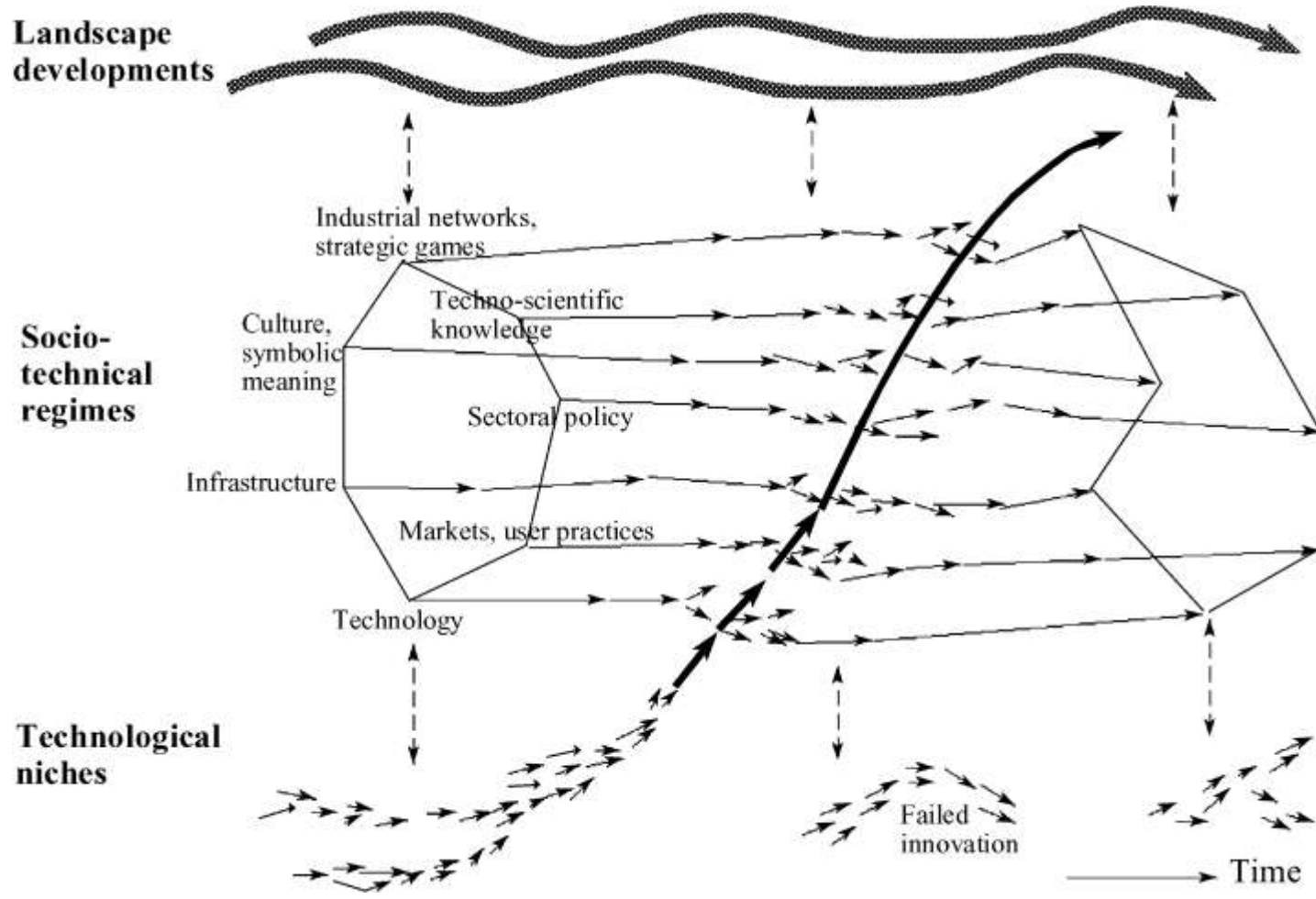


Externalise pretty much anything, including own role



Frank Geels, technological transitions 2002

Sail to steam; emergence of automobility etc.



Frank Geels. 2002 – same story but the temporal aspect



Practices are
**Reproduced and
changed through
performance**

**Carried from one
performance to the
next**

**Exist beyond
individual
users/practitioners**

(Giddens 1984, Schatzki
2002)

Practice as a process of integration

Competence

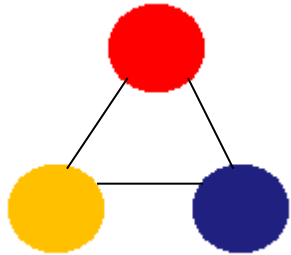
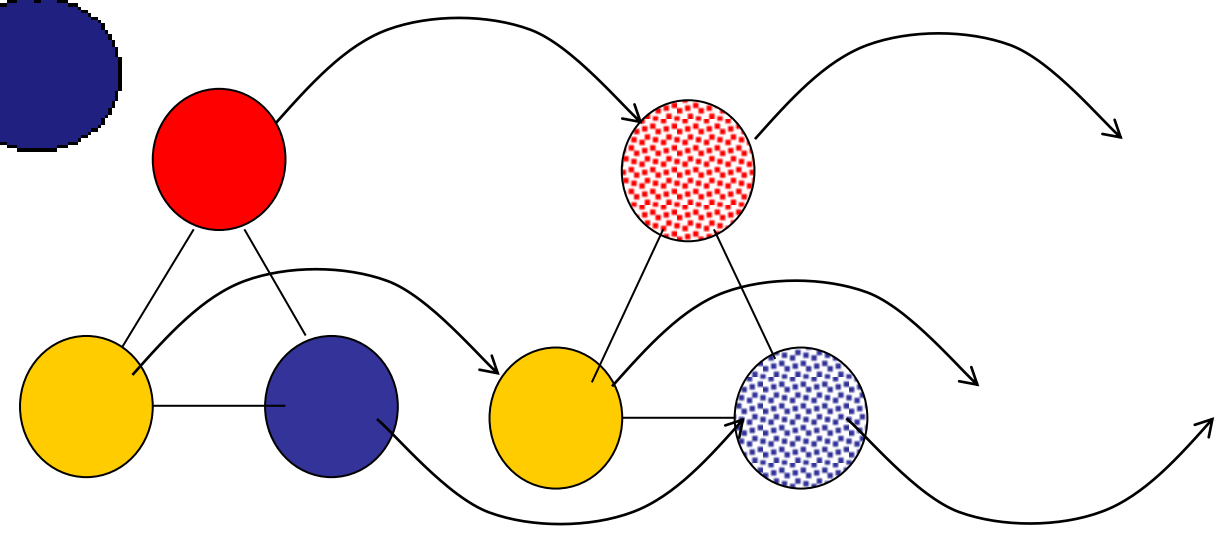
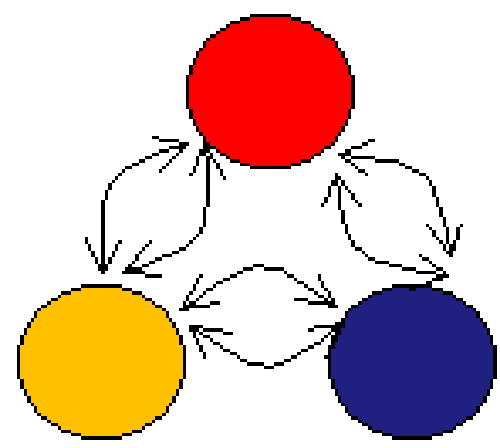
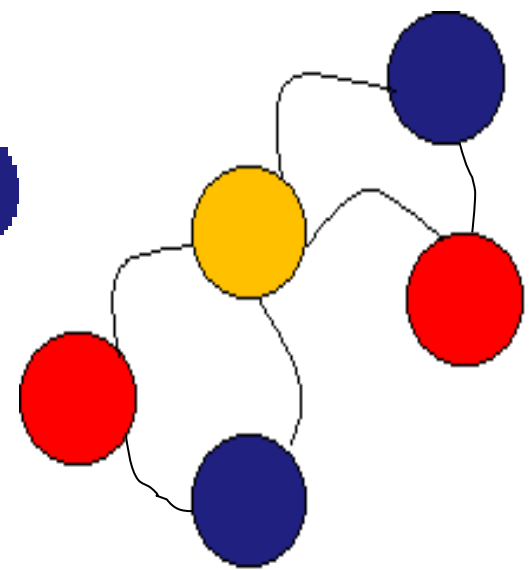
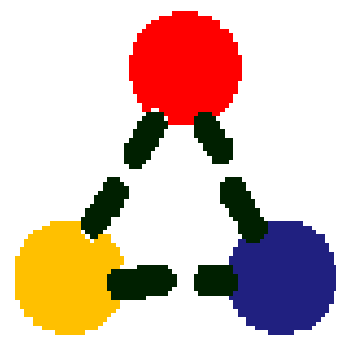
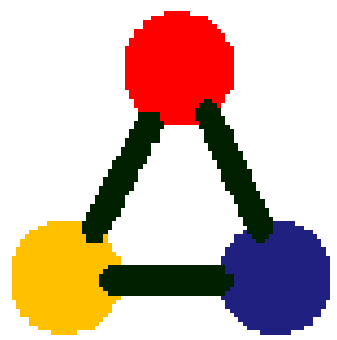
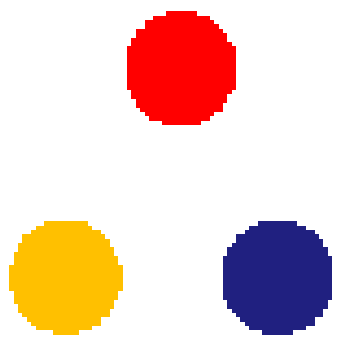


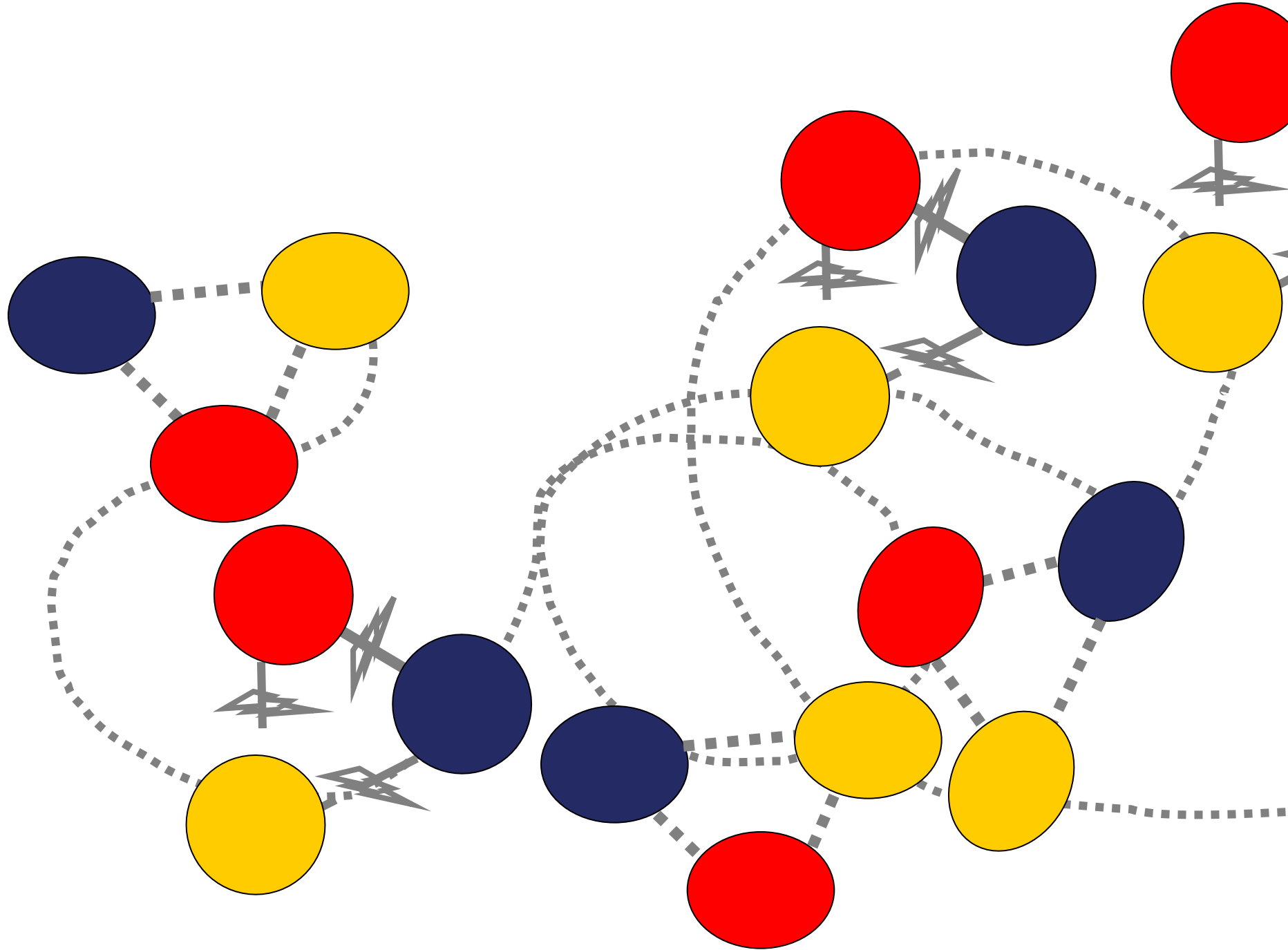
Image Material

Practice is a *process* of integration resulting in a structured arrangement - i.e. resulting in a *practice* that exists (for a time) as a recognisable *entity*.

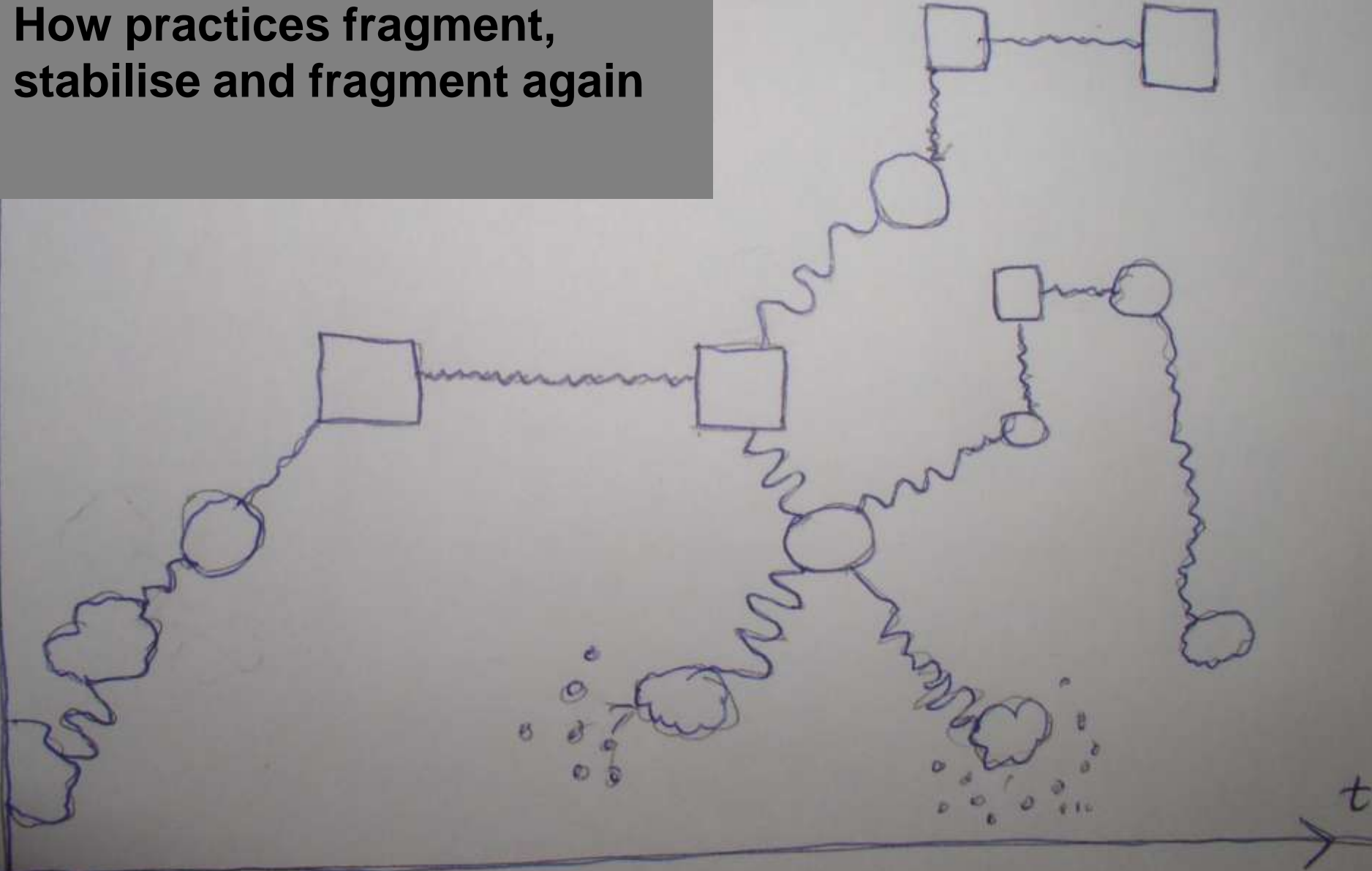
Elements that are integrated consist of material, **image** and **competence**

Innovations in practice occur when everyday entrepreneurs (people) – make new connections between existing or new elements of image, material or skill





How practices fragment, stabilise and fragment again



Transitions in cooling and comfort

carbon dioxide (CO₂) emissions from the building sector which accounts for 30-40 % of global energy use and about half of this relates to heating or cooling

The impact of refrigeration and air conditioning on climate change is twofold. If refrigerant fluids with high global warming potential are released to atmosphere, these have a direct effect on global warming.



Why humans and their fur parted ways

Nicholas Wade, new york times

Flickr creative commons

How come
22
degrees C?

physical
parameters and
cultural
concerns

sea breeze
or mountain air

what climate
to provide?

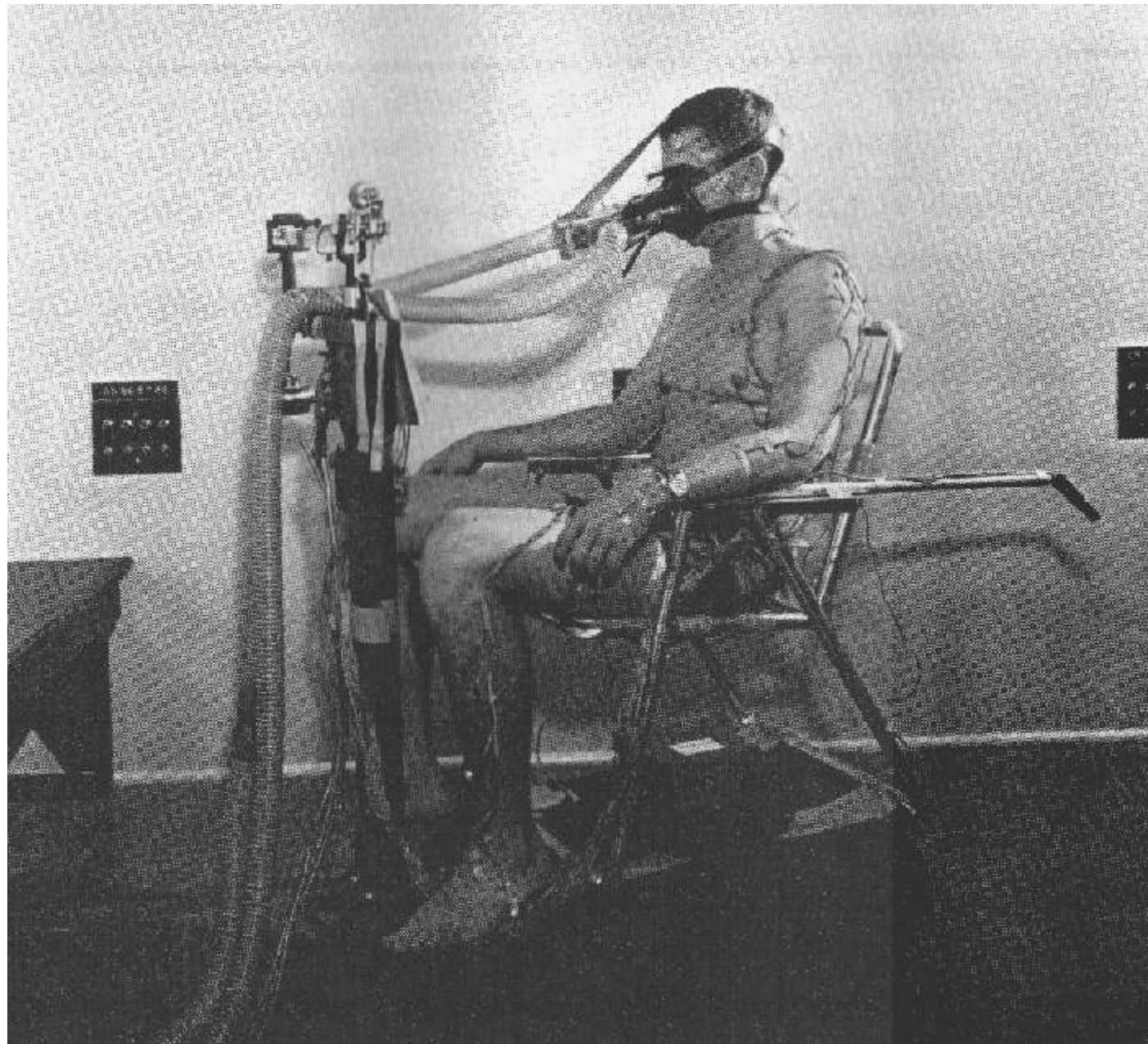
Controlled ... IN ONE HARNESS ...
THE SIX "CLIMATIC FACTORS"
OF TRUE AIR CONDITIONING



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."

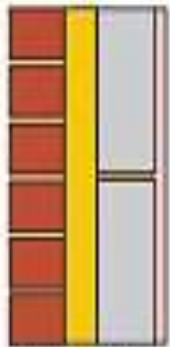
The **Olf** is a unit used to measure the scent emission of people and objects.

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.

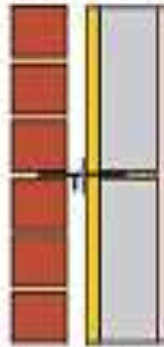


filled cavity



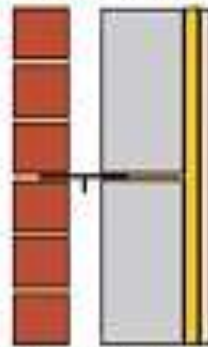
50mm cavity batts
100mm aerated block
13mm lightweight plaster

partial fill

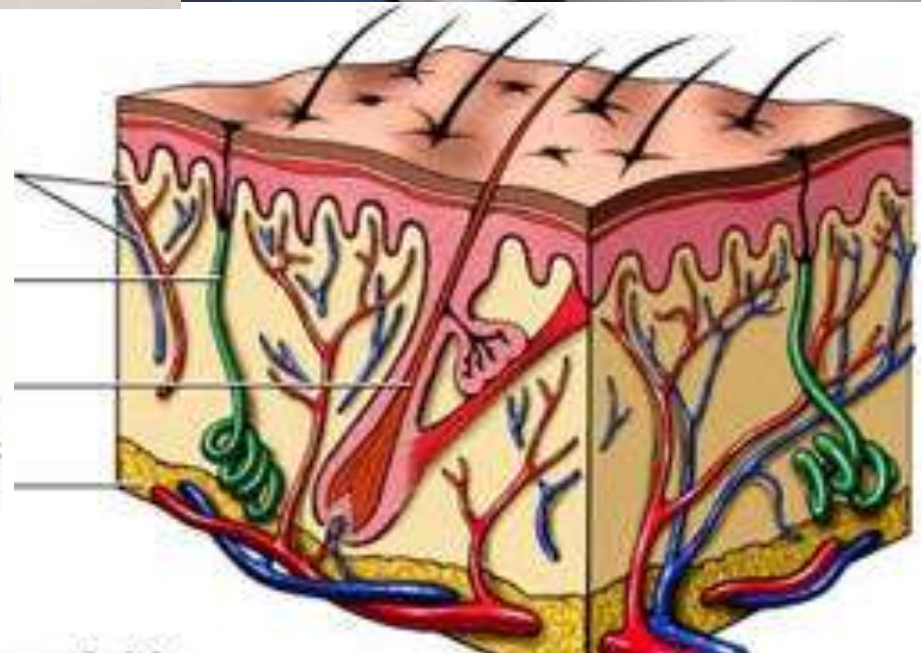


25mm cavity boards
100mm aerated block
13mm lightweight plaster

clear cavity



125mm aerated block
25mm thermal board



The arm pit – a
cultural history
of sweat and
odour



WHITE MARKS? NO THANKS.

Professionalism

Control

Anxiety

Appearance





LPG
HIGHLY
FLAMMABLE
NO DRINKING
NO BARED LIGHTS

63335555

The reproduction of
comfort involves
integrations of:

Clothing

Sweating

Building fabric and technology

Ideas about the human body

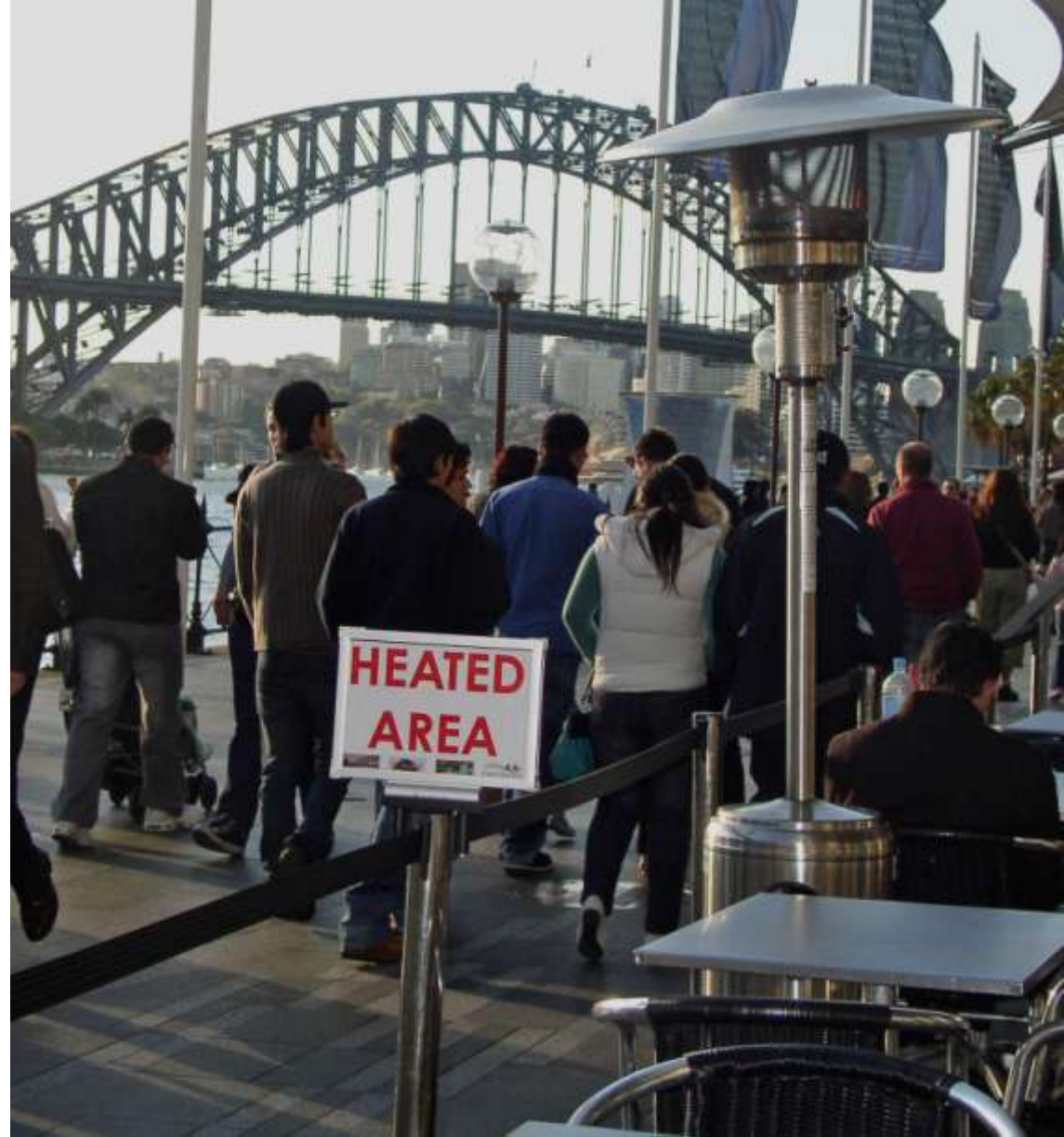
Seasonality

Regulation

Scientific research

Corporate interests

If a building is set, regularly at, say, 22 °C ... [and] ... 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)



How seasons are there?



Climate Control Clothing by Snowgum

Changing ideas and conventions of comfort: space, body, building?



6 to 30 degrees C; 20 to 28 degrees C; 22 degrees C.

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。



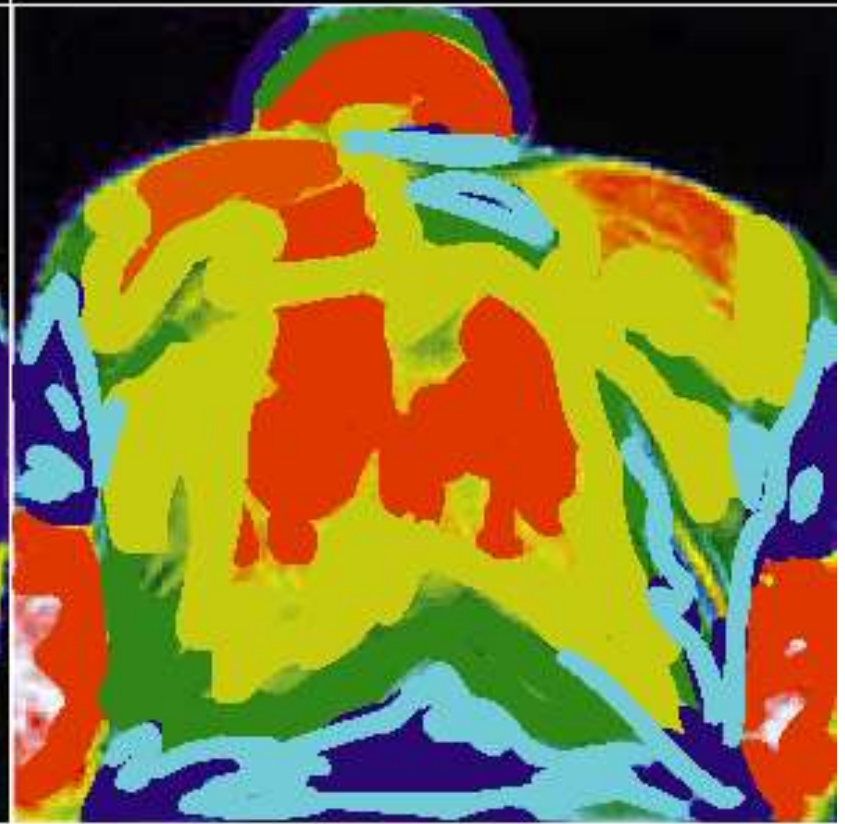
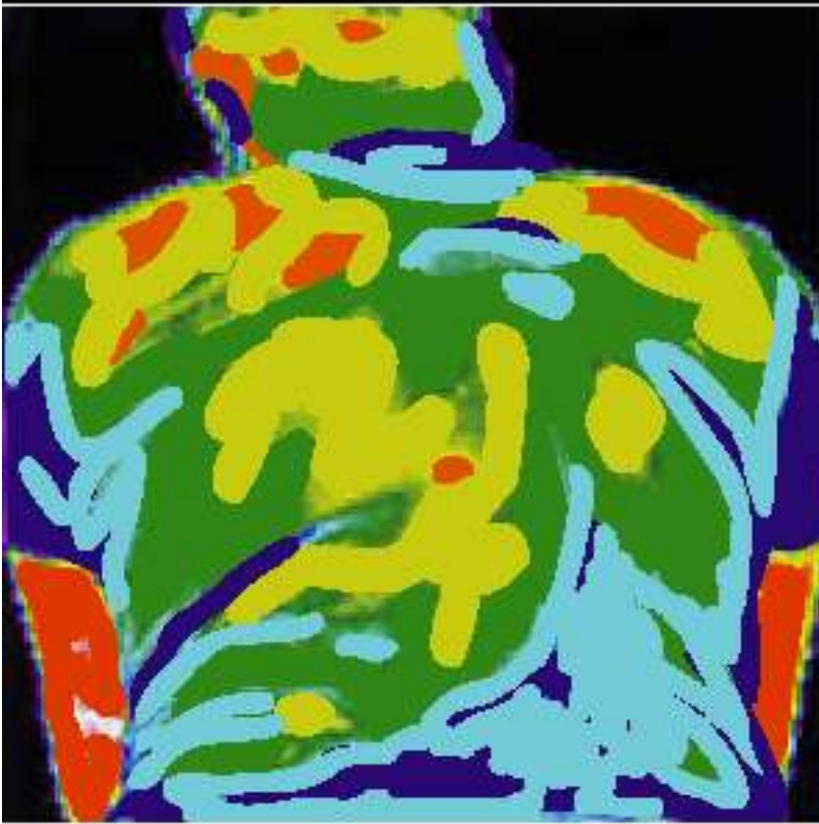
セイコーインスツル株式会社
E-4-0177001

セイコーインスツル グループ



SPORTWOOL

SYNTHETIC



TEMP



34 33 32 31 30 29 28 27 26 25 24 23

Practice oriented

How do concepts of comfort come to be as they are?

What is the assumed relation between the body and the indoor environment?

What sociotechnical systems sustain current practices of comfort and how might these be reconfigured?

Systemic intervention in the construction of demand and the reproduction of practice – (18-28 degrees C, rather than 22).

Scale of impact: potentially massive

Behaviour oriented

Why don't people turn the heating/cooling down at night?

Why don't they install more efficient technologies?

Why don't they install more insulation?

Promote efficiency: information, price etc. and 'retain current standards'

Scale of impact: limited

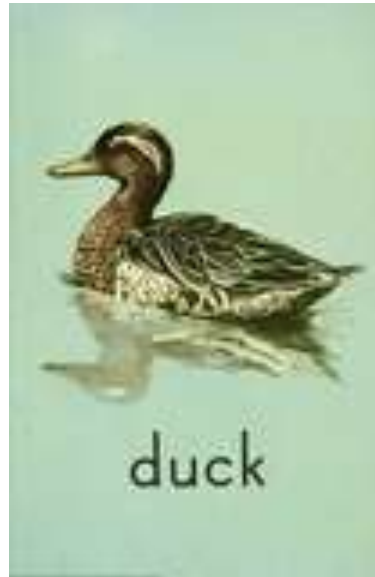
Relevant resources in social theory

Theories of
consumption, material
culture, actor network
theory, technology
studies, cultural
theory, theories of
practice, histories of
sociotechnical
change, transitions,
innovation studies....

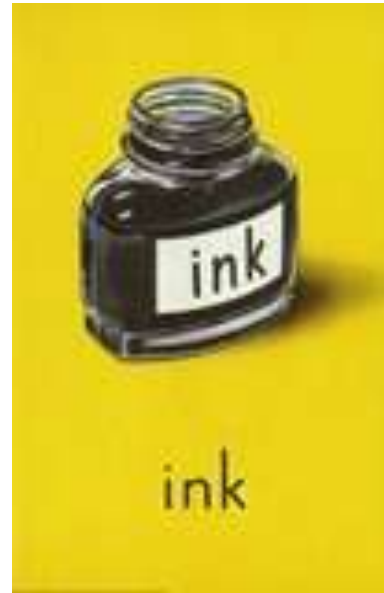


Ideas adopted in climate change policy
(business and government)

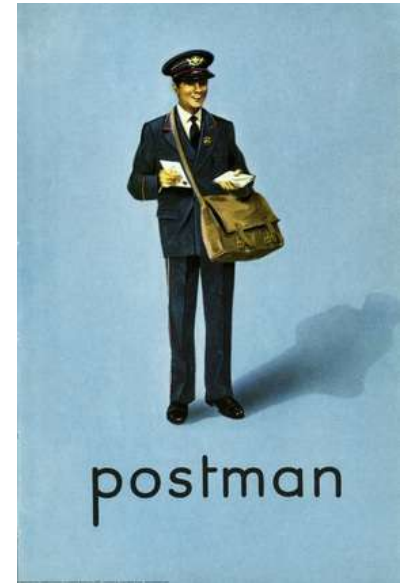
*Requires an
extended
vocabulary*



duck



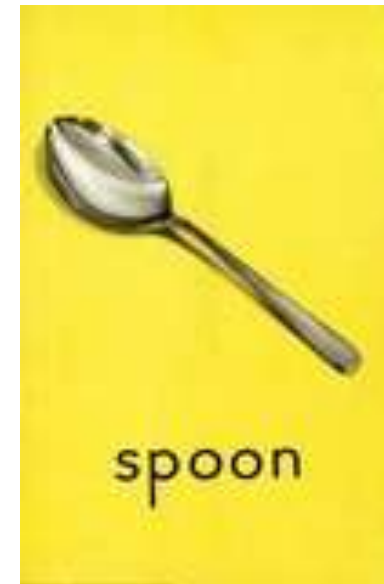
ink



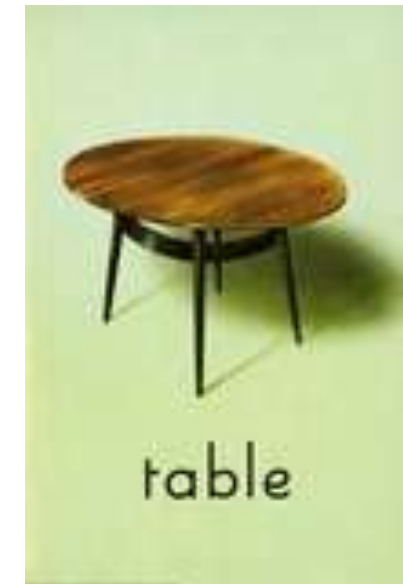
postman



rabbit



spoon



table



D

*is for dynamics and
demand*



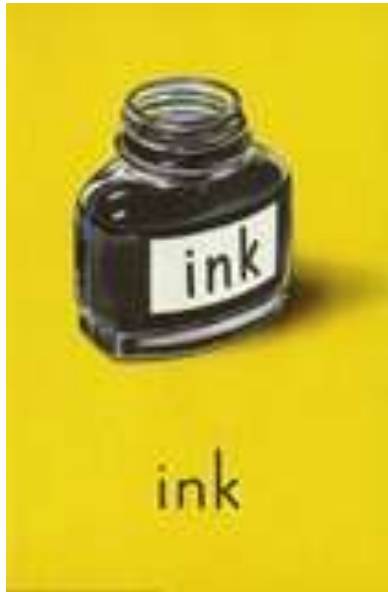
duck

Demand is an outcome of practice.

*Practices are dynamic, changing all
the time, emergent, systemic.*



is for infrastructure and institution



Practices are embedded in, and are reproductive of material and cultural infrastructures and institutions.

Though often invisible in policy debate, these are key sites of order and transformation.

p

is for practice

Practices exist beyond specific performances;

they consist of interconnected sets of norms, conventions, understandings, embodied know-how, states of emotion, arrays of material things;

they are made and transformed in and through moments of performance – doing, washing, eating, travelling, etc.



postman



r

is for routine and regime

Most environmentally significant consumption is routine, inconspicuous and habitual, e.g. washing, eating, travelling, etc.

Routines change, but not through price and persuasion.

For regimes of practice, see systems



rabbit

S

is for systems and services

Practices intersect to form bundles, complexes and regimes. These have different systemic qualities.



spoon

Services like comfort, cleanliness and convenience are relevant units of demand (not resources as such).

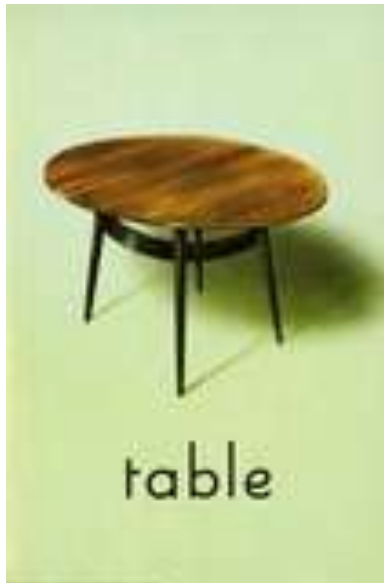
t

*is for transitions,
tipping points and
transformations*

*Practices and systems of practice
are not stable.*

*Transition and transformation is
normal.*

*For policy, the challenge is to
understand transitions in practice.*





imply new habits of thought
in sustainable policy

Relevant resources exist in social theory



Ideas adopted in climate change
policy (business and government)

Familiar, popular
discourse –if only
consumers would choose

Efficiency but assume
status quo in demand

Bundle together many
practices under the
heading ‘green’

Permits logical narratives,
models, strategies and
measures

Consistent with role;
legitimacy (choice
editing)

WORLD ENVIRONMENT DAY 5 JUNE 2008



TOWARDS A LOW CARBON ECONOMY



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 formation of habit, or any wider politics of consumption, production and demand”