

Keep the Balance

10 approaches to sustainable storage facilities



Auktionshaus Weidler, Nürnberg

Too much of everything?

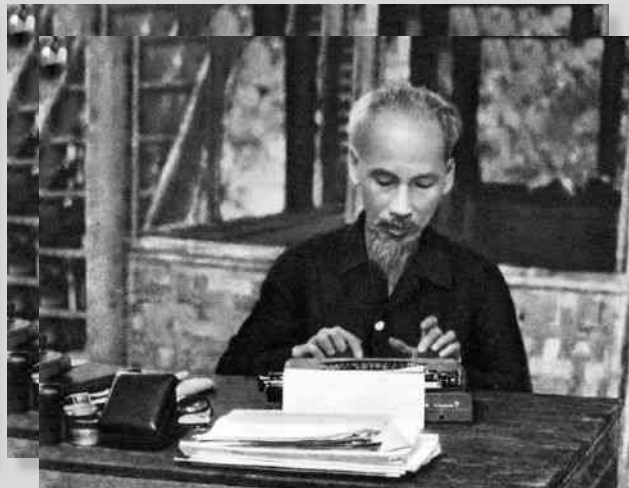


Too much of everything?



sources: internet

The context makes it work



Quellen: Internet

*Not every object makes
sense everywhere*



I, Type Writer Museum, Partschins (Südtirol)

Image: Rudolf Bloch

*Not every object makes
sense everywhere*



I, Type Writer Museum, Partschins (Südtirol)



What is a storage facility?

A storage facility is above all a repository for cultural heritage objects.

It provides reasonable protection to cultural heritage.



D, München, Stadtmuseum

Image: Prevalt



source: internet

3 big challenges for cultural heritage preservation today



Storm on Atlantic coast



JP, Mega City Tokyo



1. Climate change



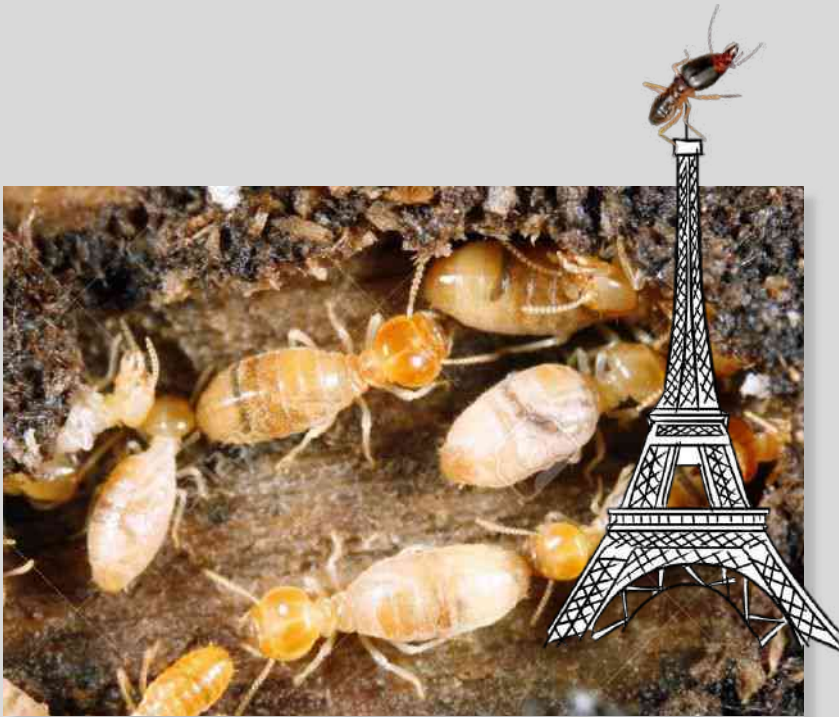
Pests

Quelle: <http://www.greentermite.com.au>



CH, Sarnen, flooding of cloister treasure 2005

1. Climate change



Termites

Quelle: <http://www.greentermite.com.au>



© Tom Martin (martinundmartin.eu)

1. Climate change

«Our house is still on fire. Your inaction is fueling the flames by the hour.
And we are telling you to act as if you loved your ^{collection} children above all else.»

Greta Thunberg at the World Economic Forum, Davos, January 21st 2020



2. Use of resources

- land
- material
- energy
- money



3. Contamination

- Biocides (DDT, Lindan, PCB ...)
- Volatile particles (fine dust, Ozone, VOC ...)



DDT-Crystals on wooden plank 2009

Quelle: Wikipedia



Steelindustrie in Benxi (China 2013)

Image: Andreas Habich

Storage facilities compared - Where are we today?



CH, Schwyz, Archive Tower
Archive since the late 15 th century



F, Paris, Bibliothèque Nationale de France
Dominique Perrault, built 1989 - 1995

Building strategies I (location)

past

intelligent location
choice



CH, Sitten, Valeria

present

“do what you like” –
technology will fetch it

energy doesn't matter



D, Köln, Chocolate Museum (2005)

future

Intelligent location
choice

outside high risk zones

not in water
not below water level

Building strategies II (materials)

past

durable materials

massive and/or
simple construction

low tech (experience)



I, roman wall (year 0).

present

short living materials
and composite systems

lightweight, but energy
consuming constructions

high tech (expensive)



D, München, Allianz Arena (2005)

future

durable materials and
durable systems

optimizing of material
use, construction and
technologies

"intelligent" low tech

Building strategies III (maintenance)

past

little maintenance

simple maintenance

present

complex maintenance

replacement of whole components

future

simple maintenance
least possible maintenance

repairable



E, Dominio de Aranleon / Burjassot



air conditioning system

Building strategies IV (climate)

past

*no standards,
experience*

*seasonal adaptive
climate*

*passive climate
natural ventilation*



IR, Abarkuh, wind tower

present

*narrow standards,
not experience based
same climate all year*

*active climate control
high control effort*



air conditioning ducts on roof

future

*“intelligent” guidelines,
experience*

*seasonal adaptive
climate*

*“intelligent” passive
climate control
natural ventilation*

Building strategies V

(energy consumption)

past

no or little energy
consumption
low operating costs

present

waste of energy
high operating costs

future

least possible energy
consumption
low operating costs

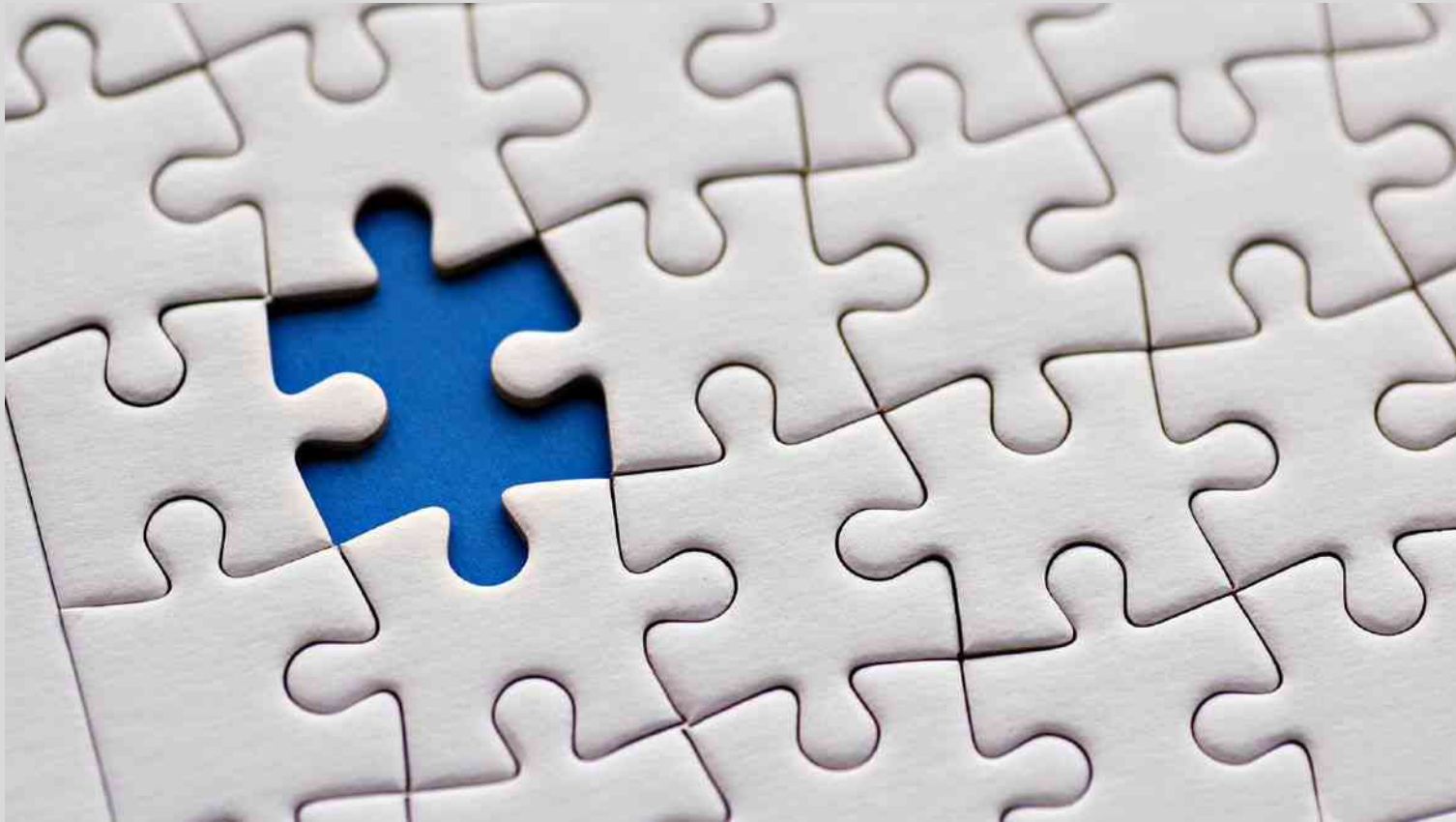


GR, church on Santorin island



GB, Norwich, Sainsbury Centre for Visual Art (1977)

10 sustainable approaches for storage facilities



1. The 95% to 5% – principle

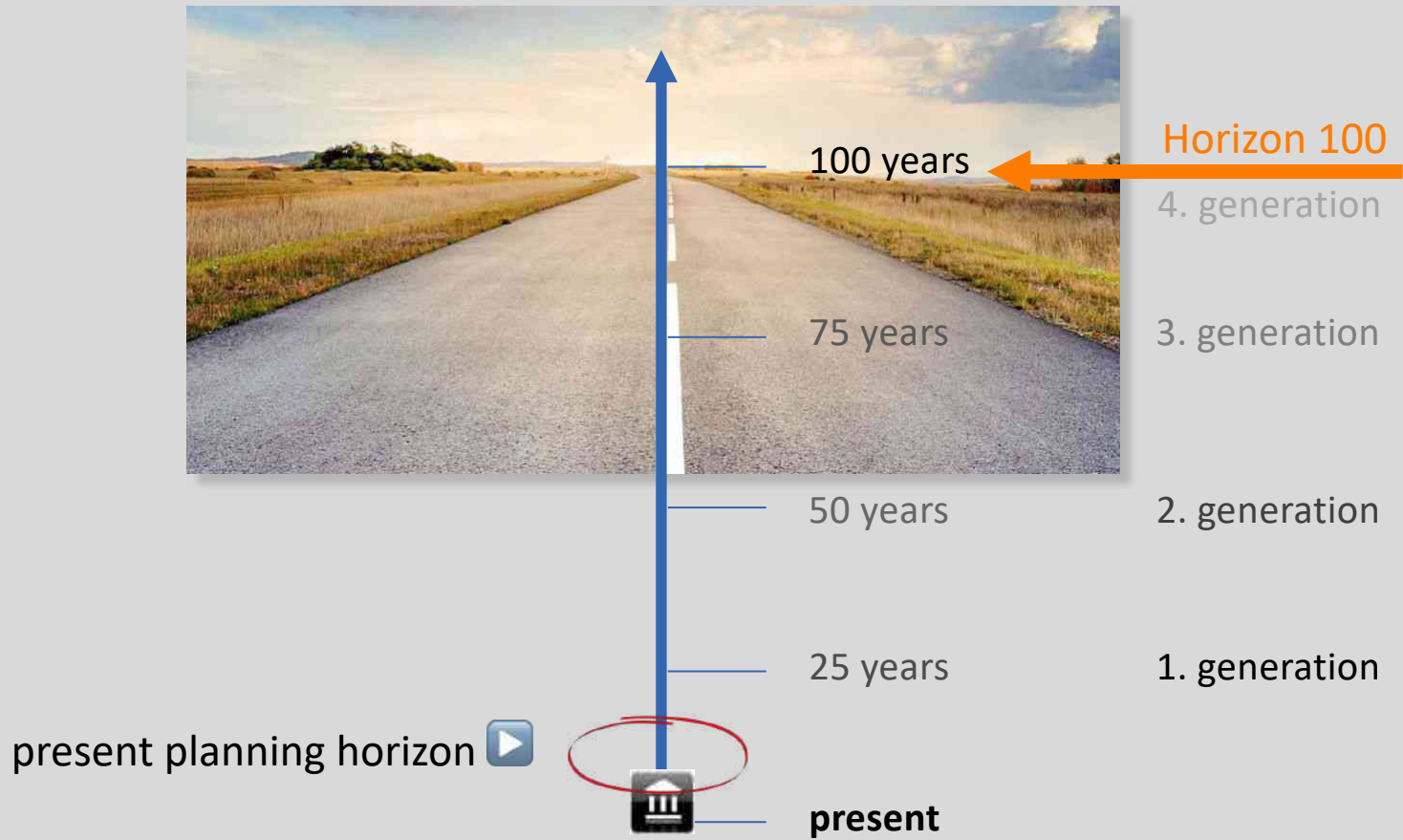
It's the aim to find a good solution for 95 % of the cases – and to find compromises or special solutions for the remaining 5% of cases.

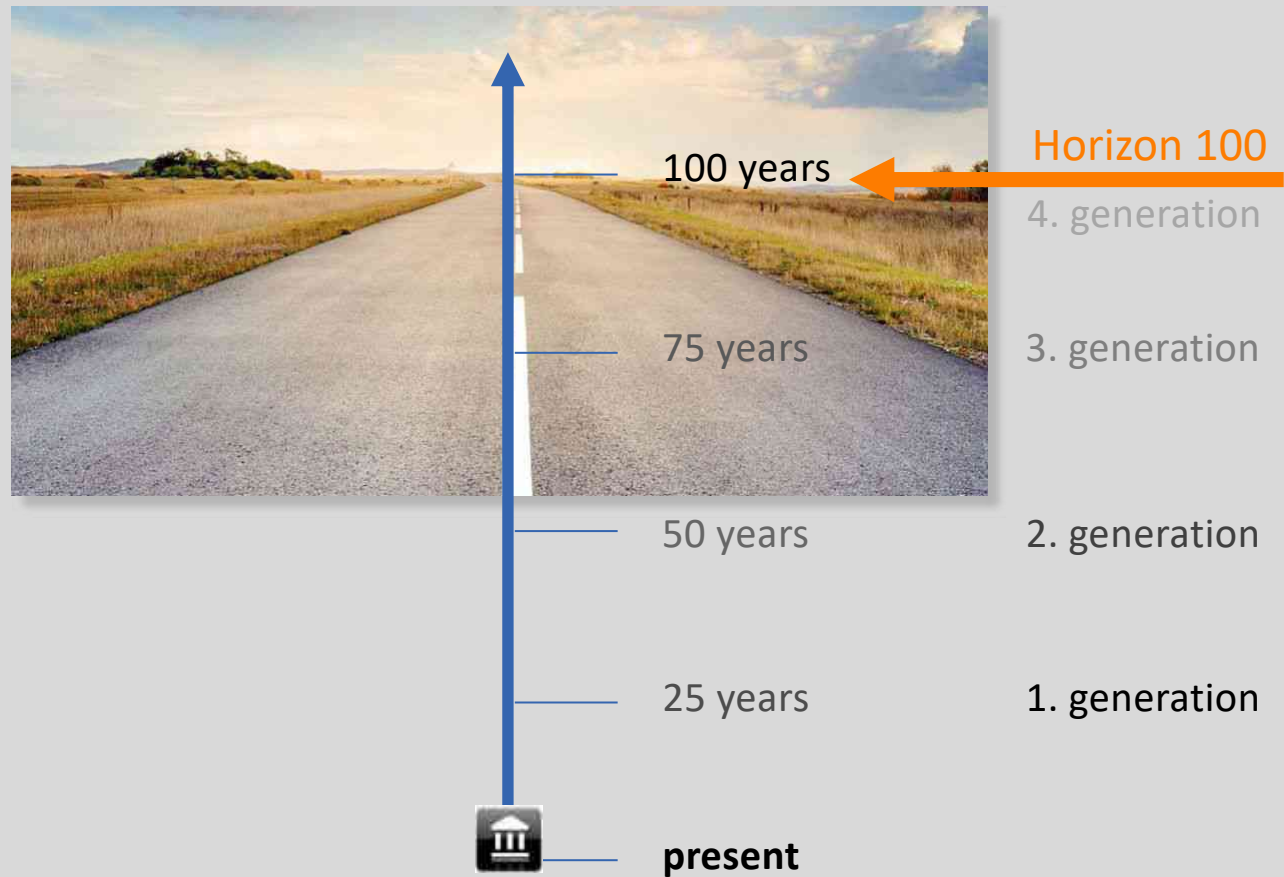
Do not head for 100% perfection



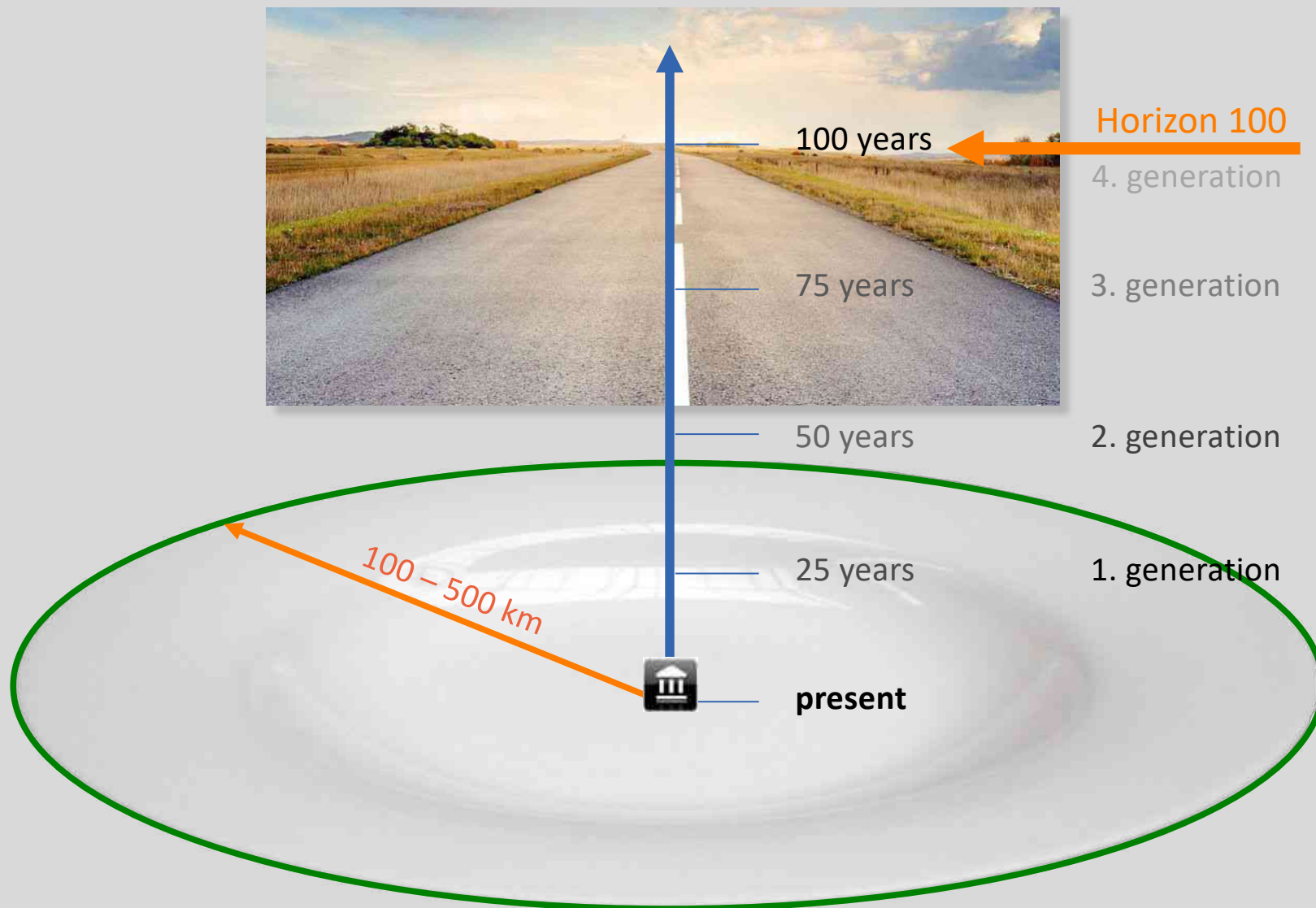
2. Horizon 100







What shall we do **nowadays** that **in a 100 years time** the most relevant part of our collections still remains.



Horizon 100



reasonable
action



3. A thoughtful collection policy for every collection

- Why do we collect?
- What is our aim in collecting?
- What are we collecting?
- What do we not collect?
- What are the criteria to accept an object as an entry to the collection?
- How can we improve the quality of our collection?
- How do we store our collection?



USA, Smithsonian NMNH, Washington DC

A Museum Storage is not a Flee Market



N, Bergen, second hand shop

Image: Kevin Rechsteiner, 2015

4. Keep only what is worth to be kept

- very restrictive collection growth
- entry in the collection only according to collection policy
- no redundant objects (internal, local, regional)
- „keep best object available only“ (by condition, context, quality, content, message)

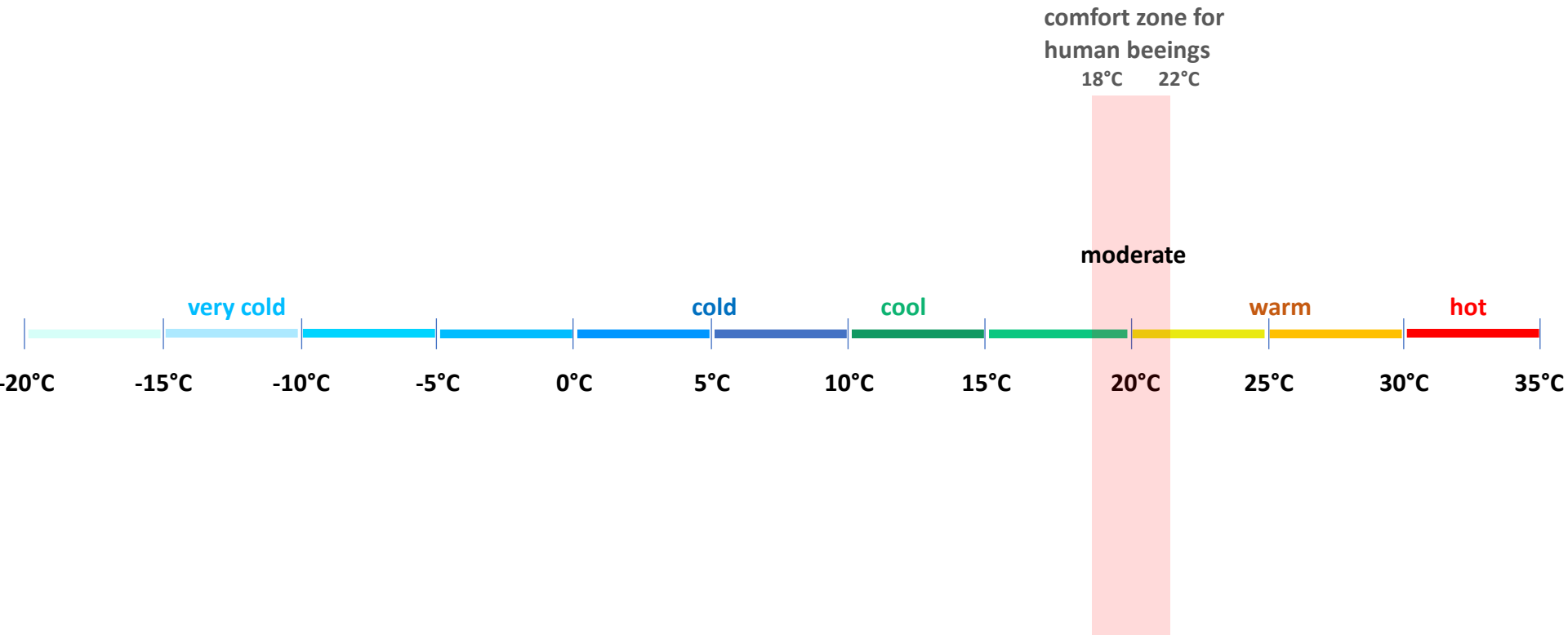


source: internet

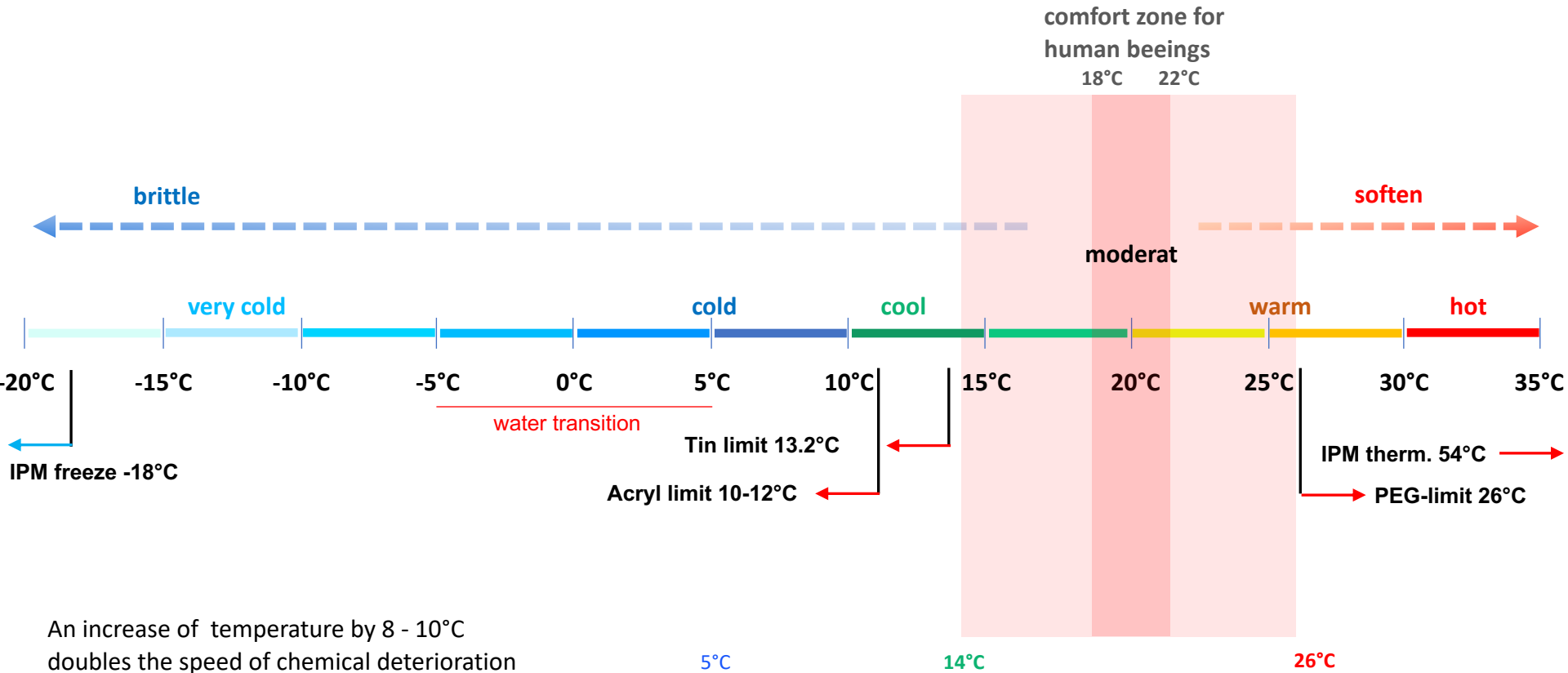
5. Realistic climatic specifications



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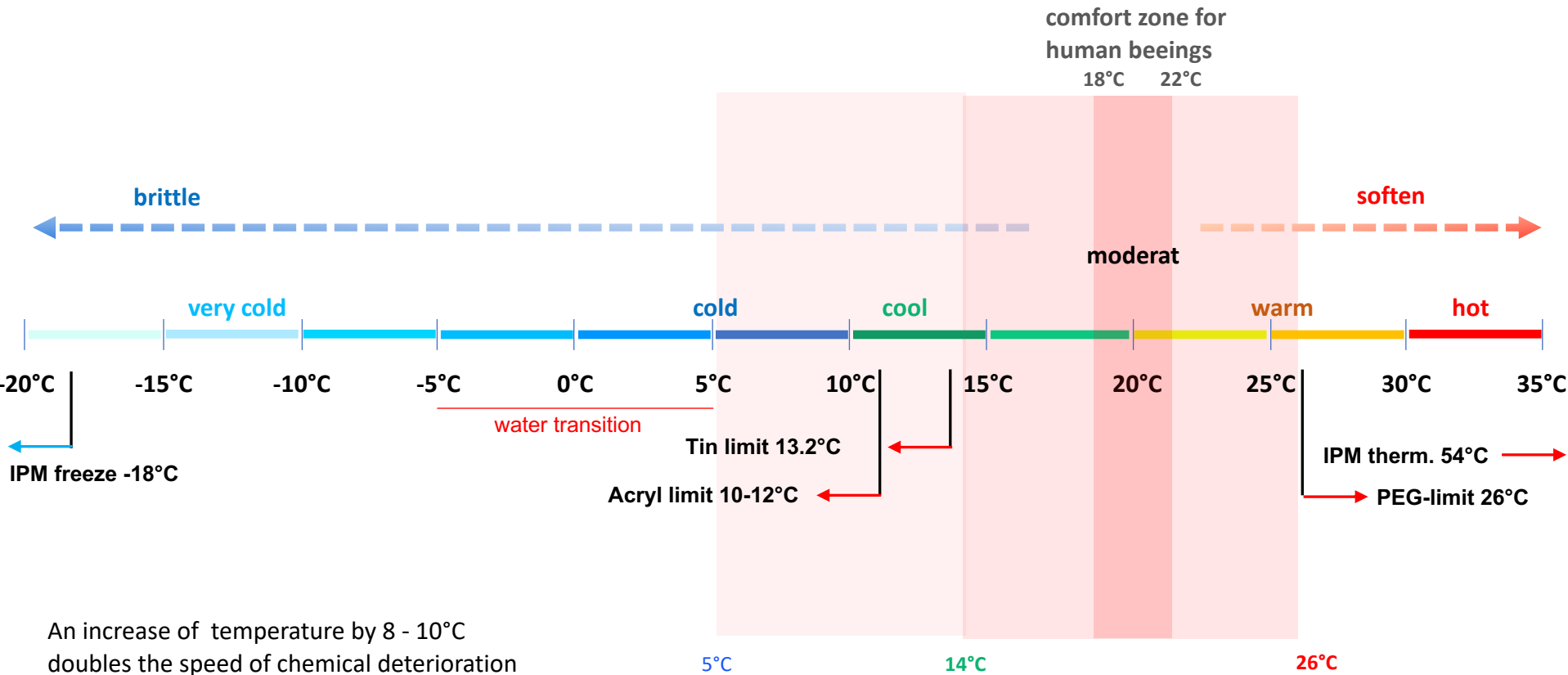


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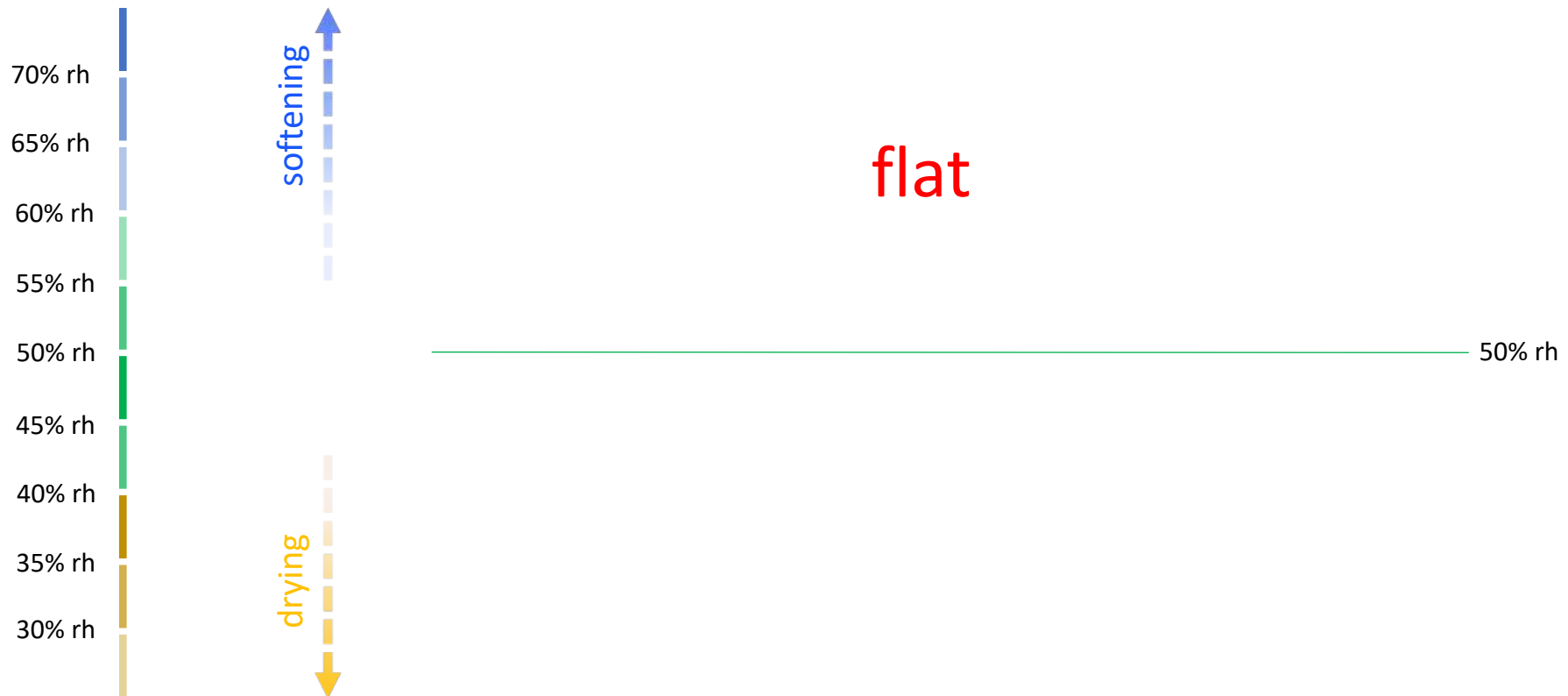
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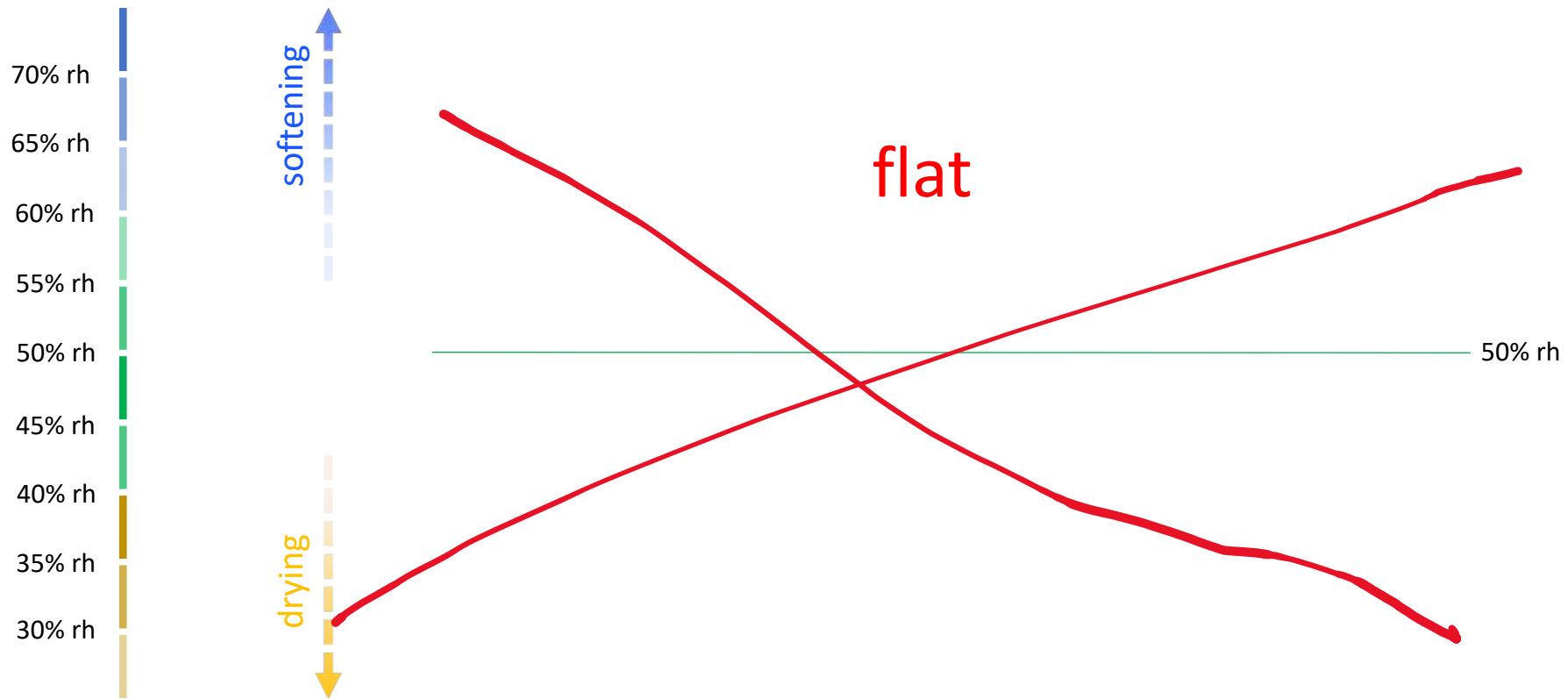


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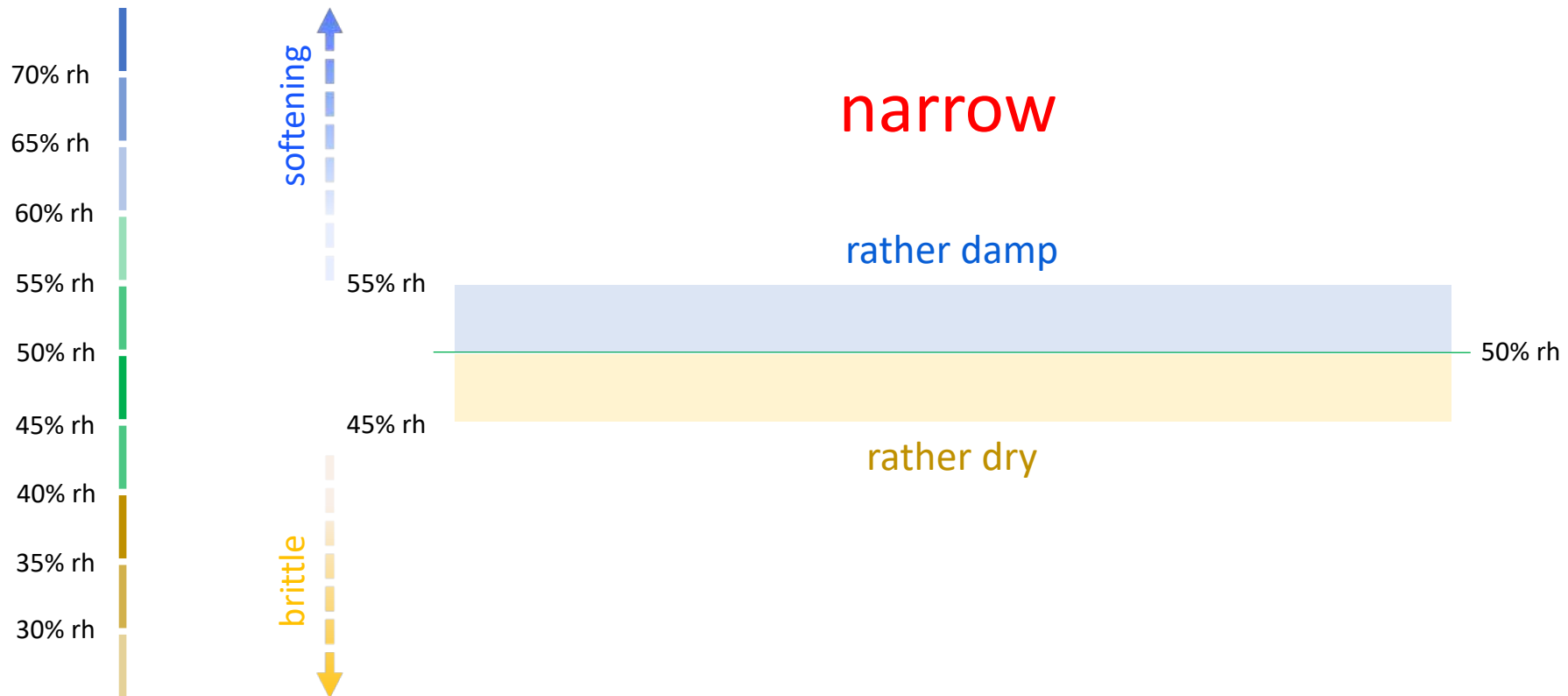


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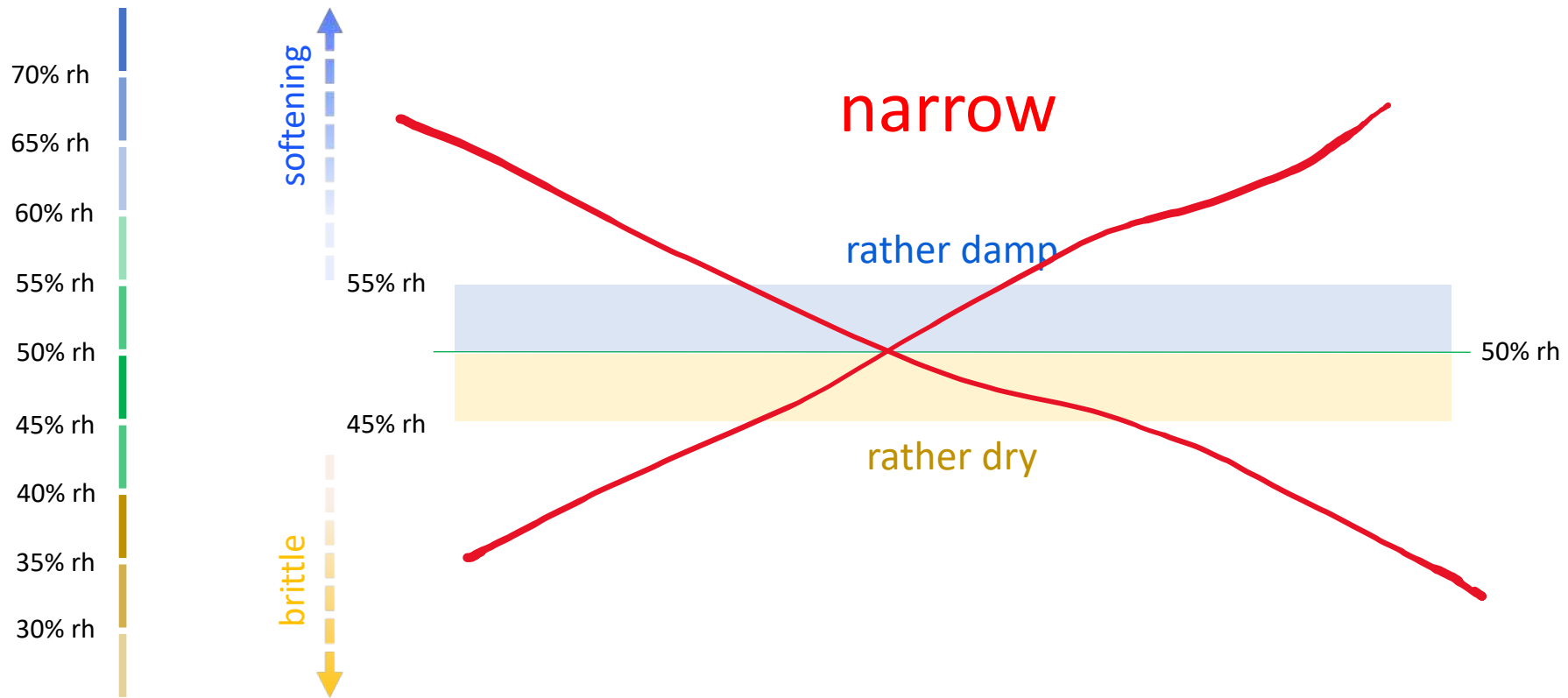


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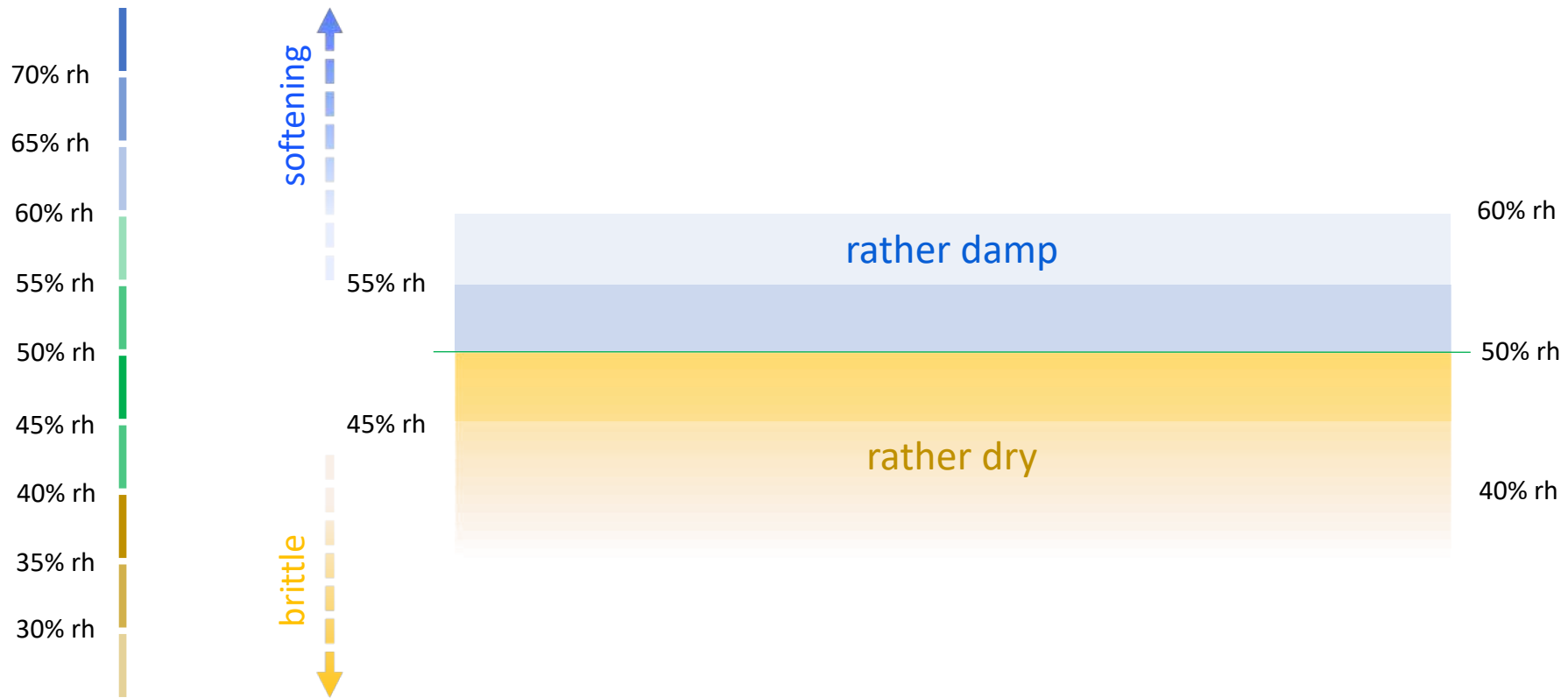
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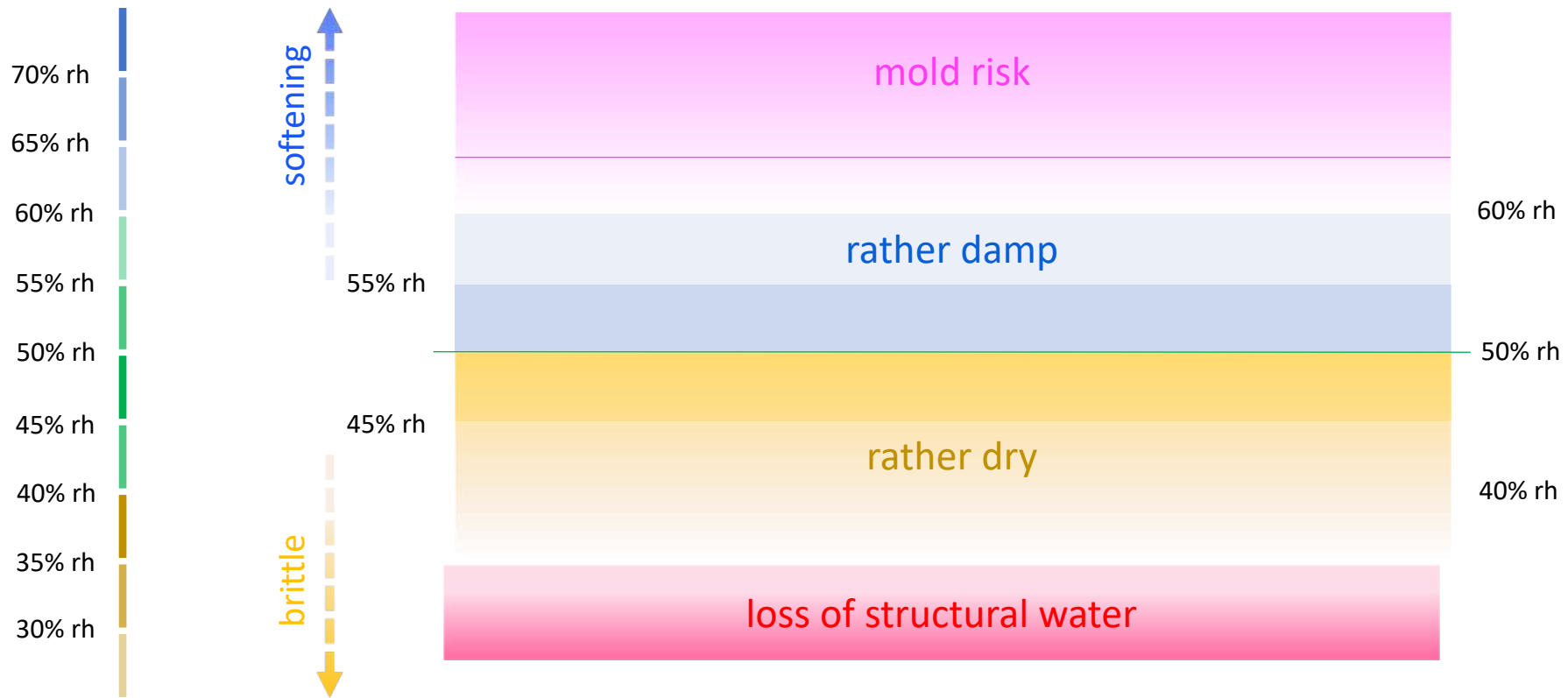
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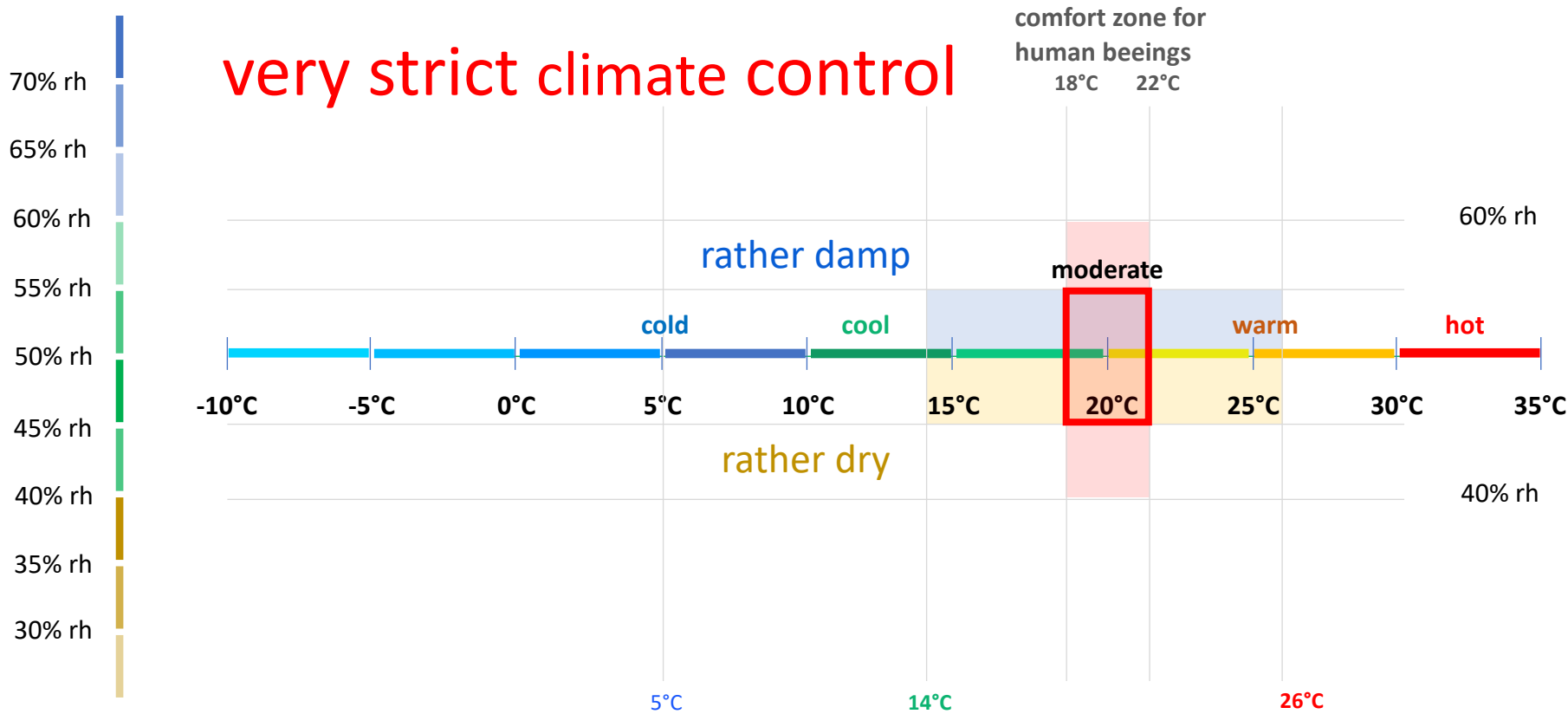


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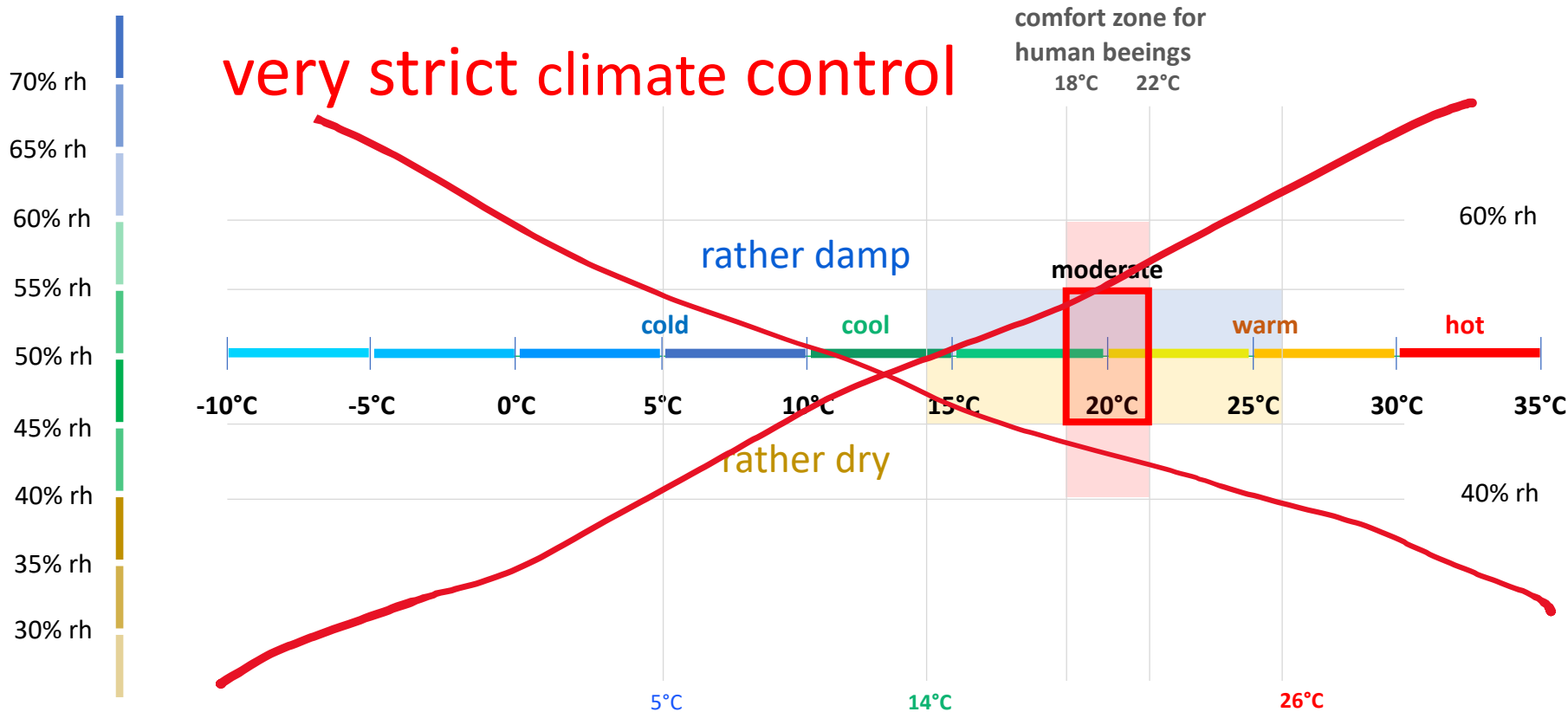
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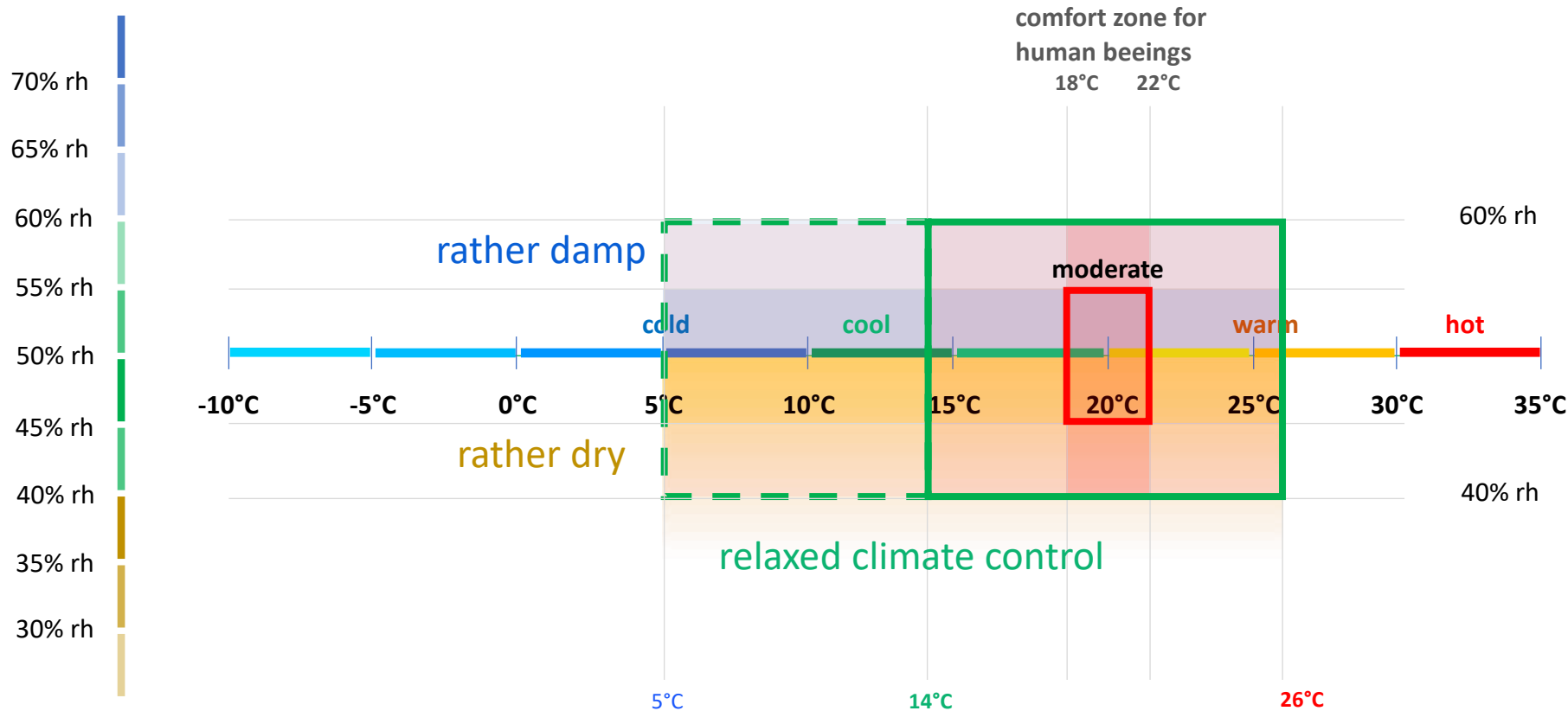
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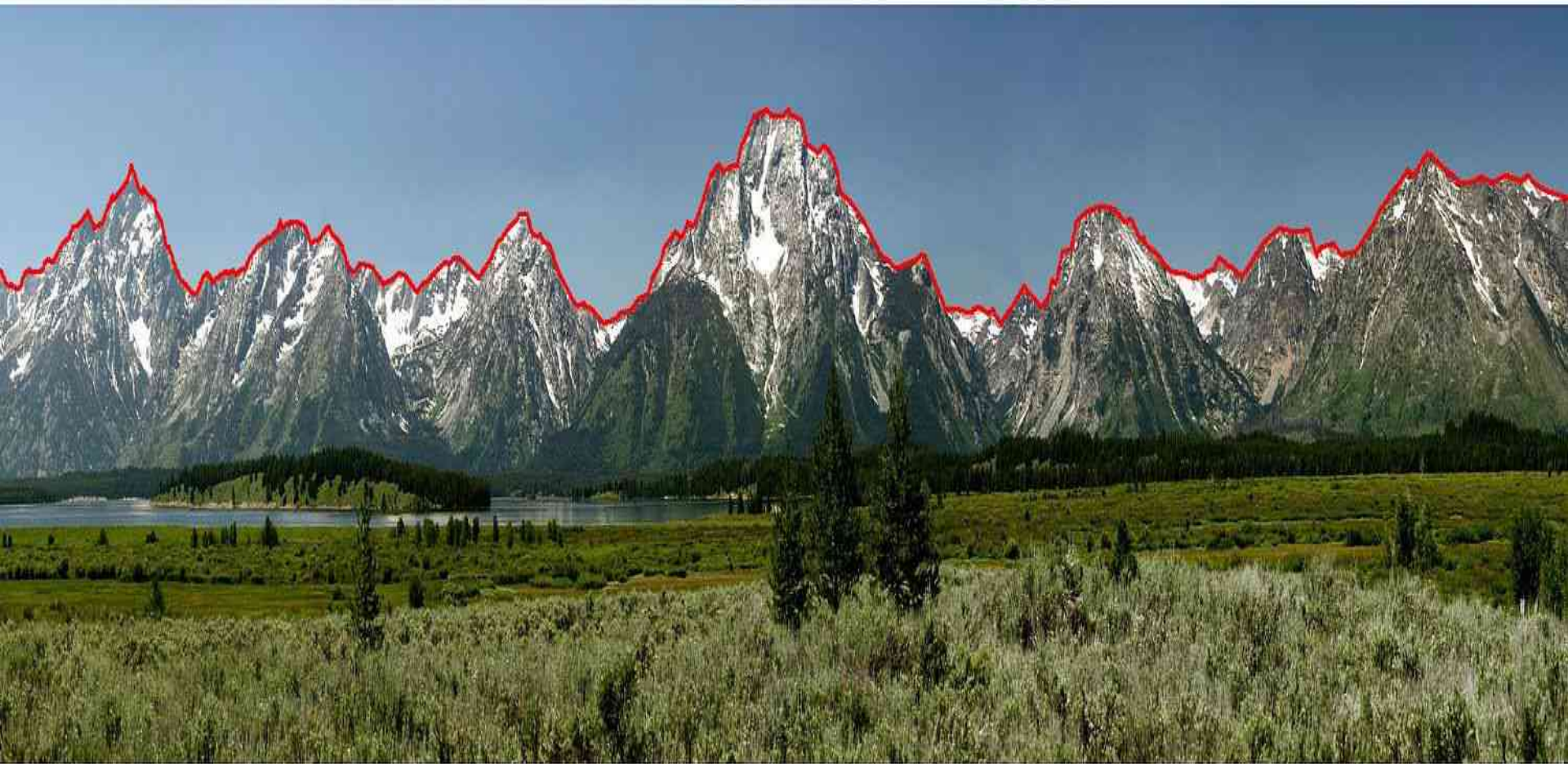
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USA, Teton mountains (Wyoming),

Image: Astrid Herzog

5. Realistic climatic specifications



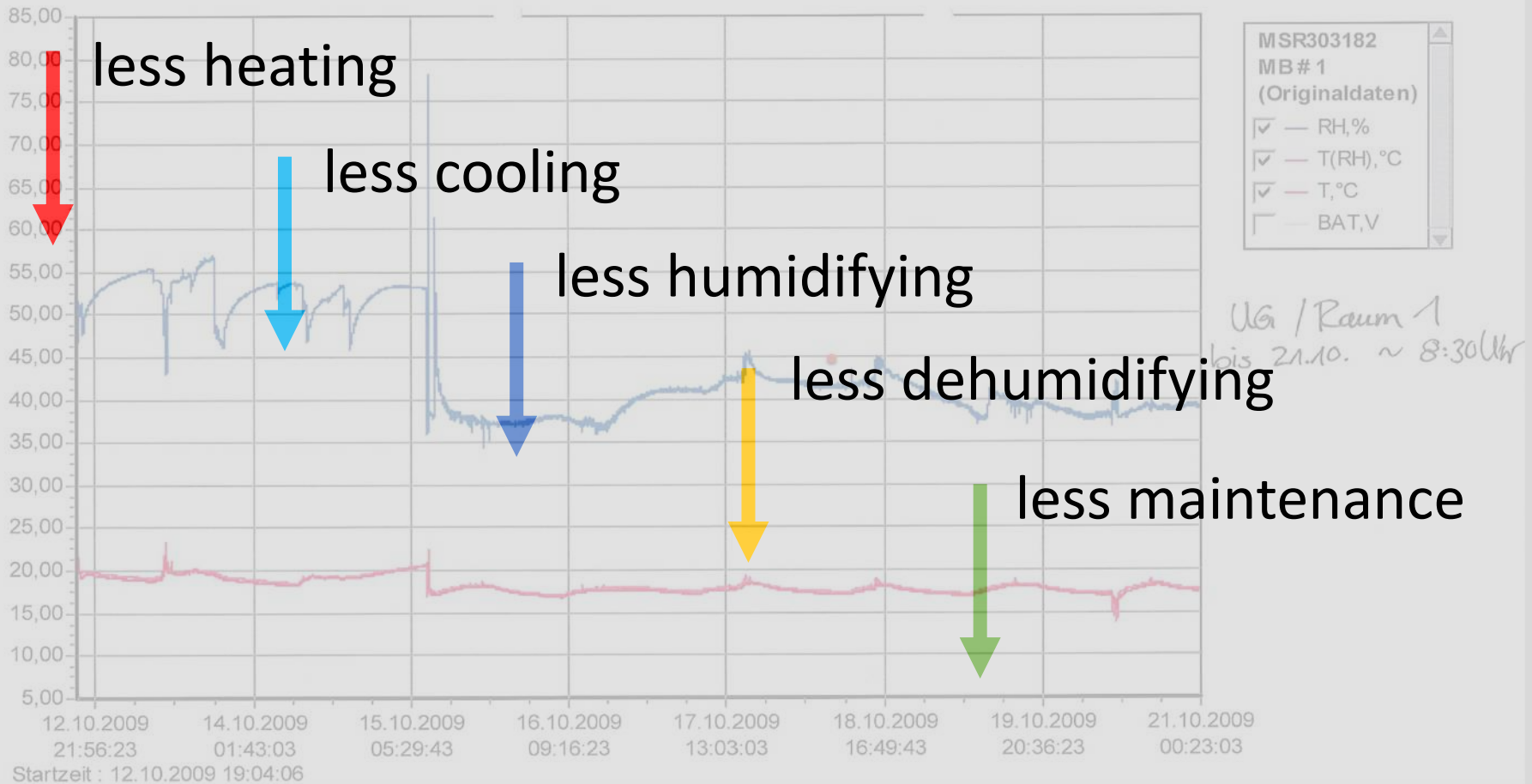
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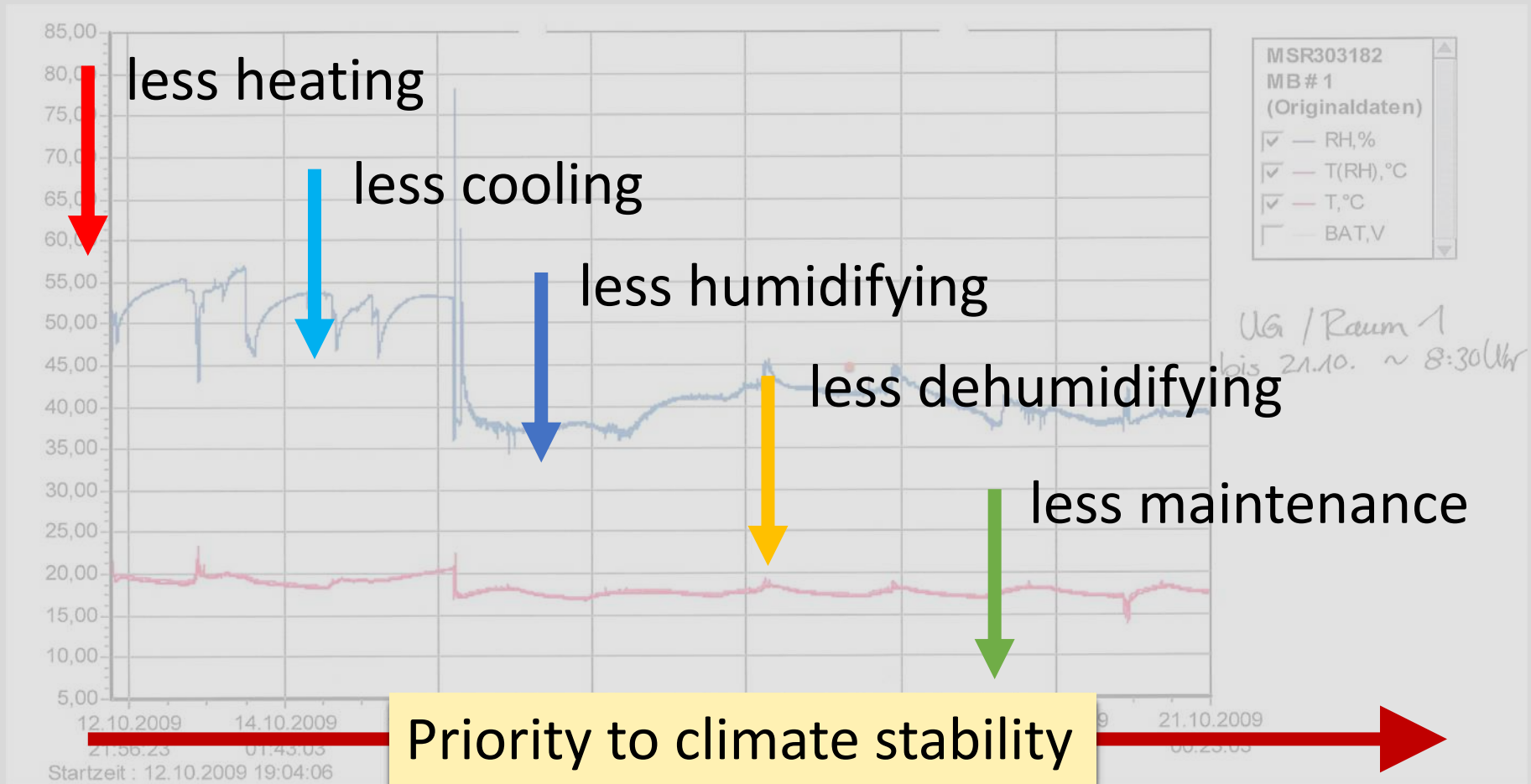
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5. Realistic climatic specifications



6. passive instead of active

Passive actions are to prefer over active actions (e.g. in air condition) to keep the use of resources as low as possible.



IR, Abarkuh, airing chimneys



Extensive active climate control

7. Reduce Contamination

Worrying levels of biocides found on cultural heritage

Goal is to protect staff and reduce over all contamination

- cleaning objects & space
- dividing space
- seal objects
- higher air exchange
- deaccessioning
- personal safety equipment



8. Systematic IPM

As biocides are no longer the choice to fight pests, systematic IPM is getting more and more important

- tight building
- cleaning, good house keeping
- strict pest control
- double door system (sluice)
- reasonable storage equipment
- reasonable climate



9. Reasonable demands for storing our precious collections.

It is the aim to meet the requirements of our collections in storage, considering their need, their cultural value and our financial resources.



Paintings on movable rack

Image: Prevalt



Paintings on mobile shelves

Image: Prevalt

10.Compacting Storage

The goal is to **store in a compact way** to reduce over all space needed

A compact room volume is cheaper in investment and more reasonable to run (CO₂ footprint, energy consumption).



César Baldacchini, Compression Renault 977 VL 06, 1989

one more goal ...

humility and modesty in our demands . . .



one more goal ...

humility and modesty. . .

. . . cultural heritage is just one part of our world



copyright by www.weissenetz.de

I have a dream



where our environment is vital and important,
cultural heritage may be (only) relevant

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I have a dream

Museum directors

sustainable strategies

Curators

reasonable collection policies

Conservators

reasonable conditions

Architects

sustainable, simple buildings

Visitors

close attention to our heritage

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How much cultural heritage is enough?



Too much of all and everywhere the same?

It's up to you to decide



source: internet

to us to tackle this mission
It's up to ~~you~~ to decide



source: internet

Fairness

This presentation is available as a handout
for download @ www.prevalt.ch/download

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17.11.17

Building strategies V (energy consumption)

past	present	future
no or little energy consumption	waste of energy	least possible energy consumption
low running costs	high running costs	low running costs



10 sustainable approaches for storage facilities



1. A thoughtful collection policy for every collection



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A Museum Storage is not a Flea Market



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