

# Virtual Soil Museum



World Soil Information

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# World Soil Museum

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- Founded in 1966. FAO Soil Map of the World.
- 1100 monoliths (>85 countries); 90 in museum.
- All monoliths are completely described, sampled and analysed. Collection built up over a period of 50 years.
- Represent the great variety of soils in the world.
- Valuable collection for scientific research and education.
- ~2500 visitors per year. From primary and secondary school kids to scientists.
- 2015: Indonesia, Surinam, Georgia, Bhutan



# Soil monoliths

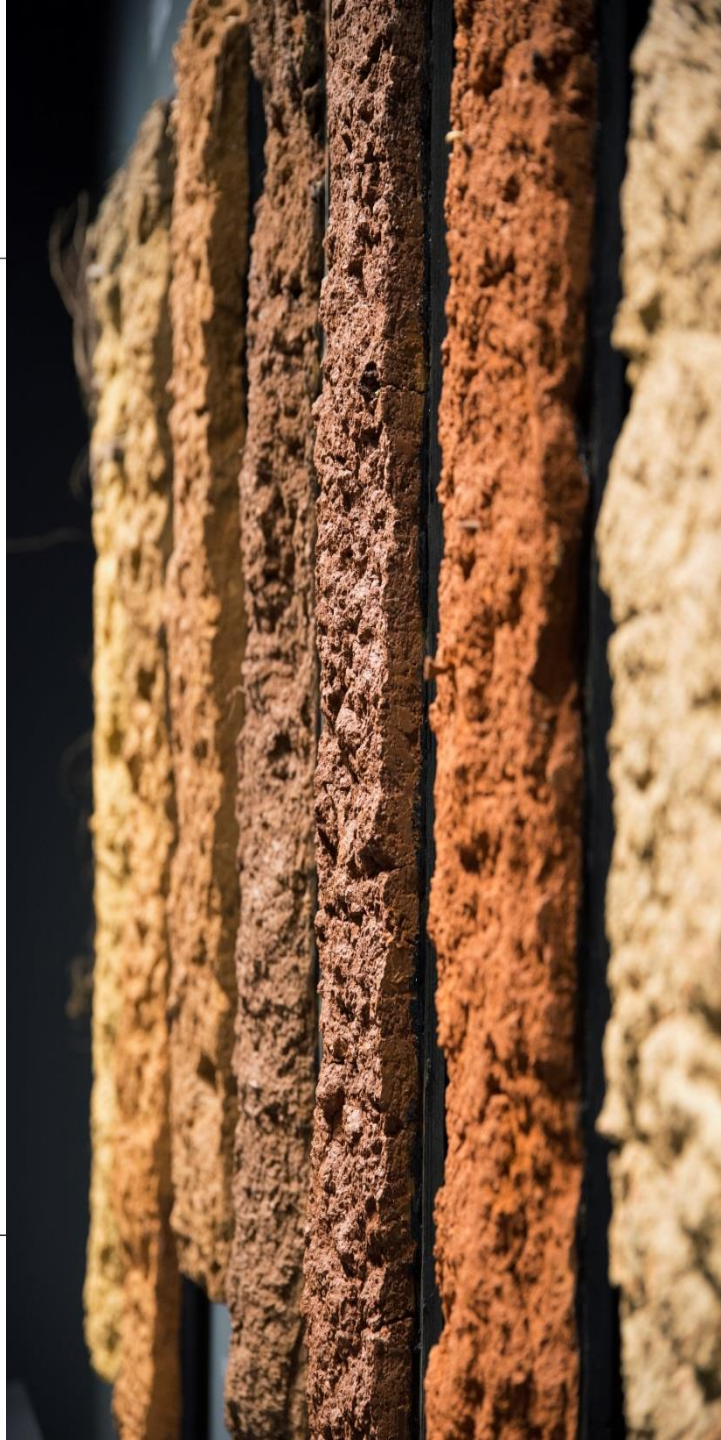
A way to preserve and display soils for education and advocacy

Undisturbed depth samples of soil, that show the 'natural' appearance of the soil:



- Colour
- Texture
- Structure
  - Depth
  - Roots
  - Pores
- Artefacts



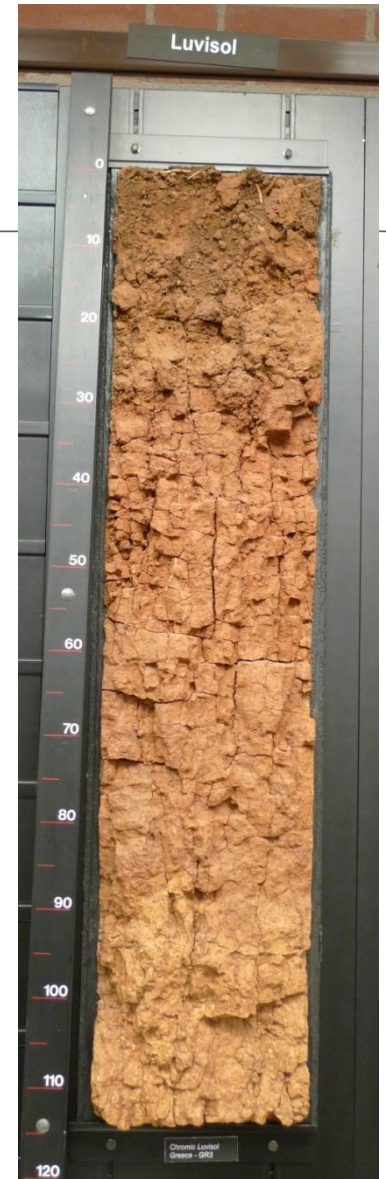


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# Monoliths and the World Soil Museum

- The monoliths are the core objects of study and carriers of information for education in the museum
- Soil monoliths are an excellent medium for:
  - Creating soil awareness
  - Soil education and research
  - Soil classification practice





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# Soil judging during ISRIC's Spring School course on World Soils and their Assessment (WSA)



World Soil Information



# Soil monoliths and education / wareness

- Level 1: Soils are diverse across the globe and at the landscape level
- Level 2: What factors contribute to this variation and influence soil types and their specific properties
- Level 3: What is the importance of the variation of soil and their properties

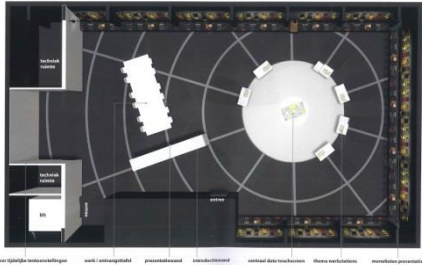


# Level 1: Soils are diverse across the globe and at the landscape level

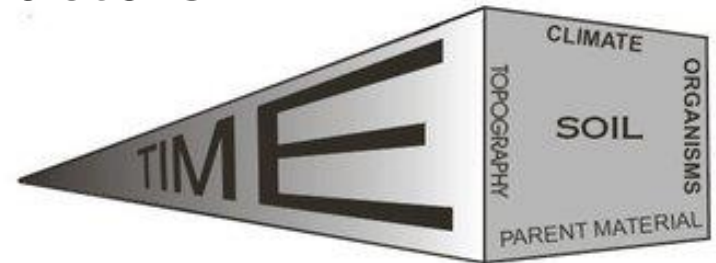
- No visibility obstructing objects
- All monoliths visible from most spots in the museum

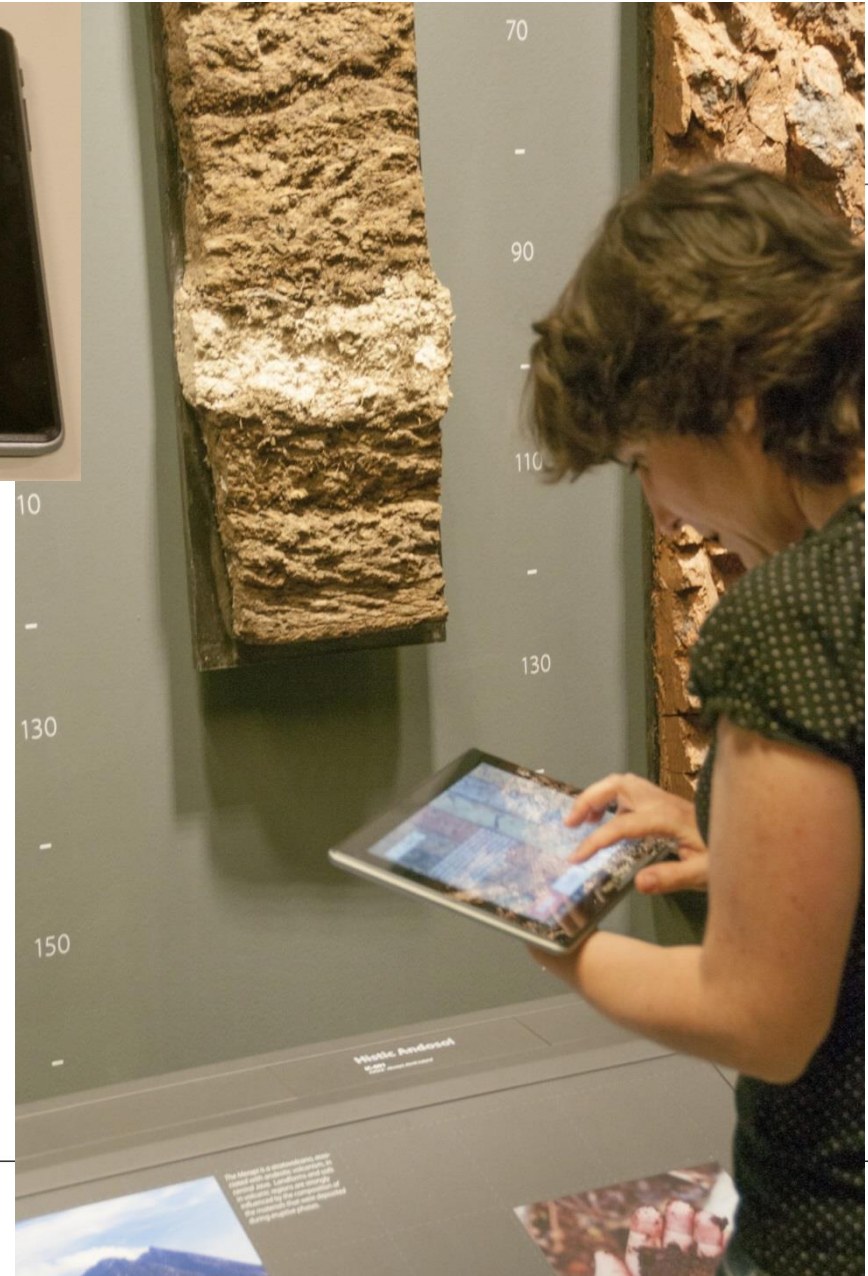


## Level 2: What factors contribute to this variation and influence soil types and their specific properties

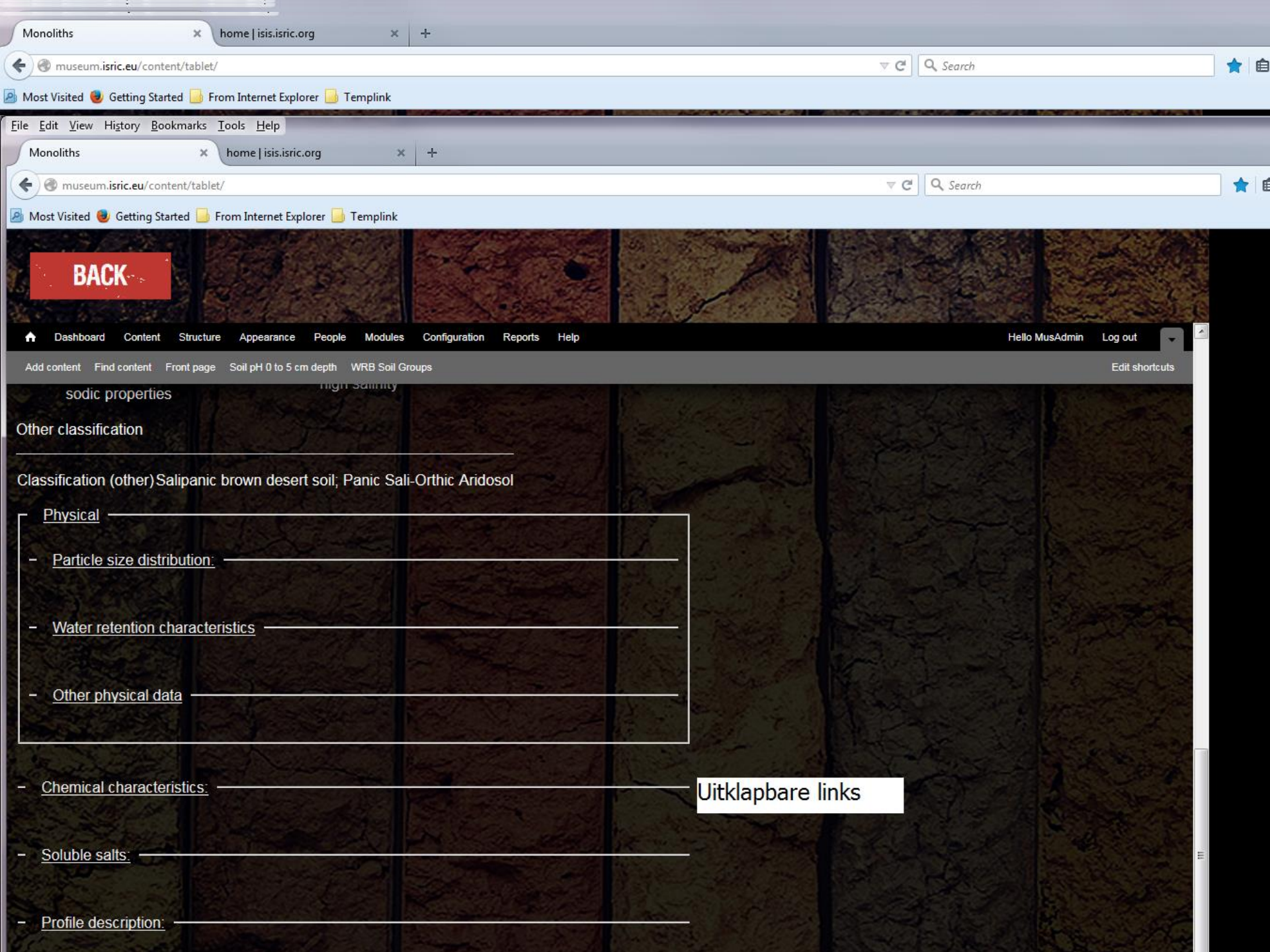


- By and large soil monoliths are displayed in sections representing the soil forming factors
- Additional sections include:
  - Soils of the Netherlands
  - Man and soil
  - Soils and land management
  - Soils and colour





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BACK

sodic properties

high salinity

## Other classification

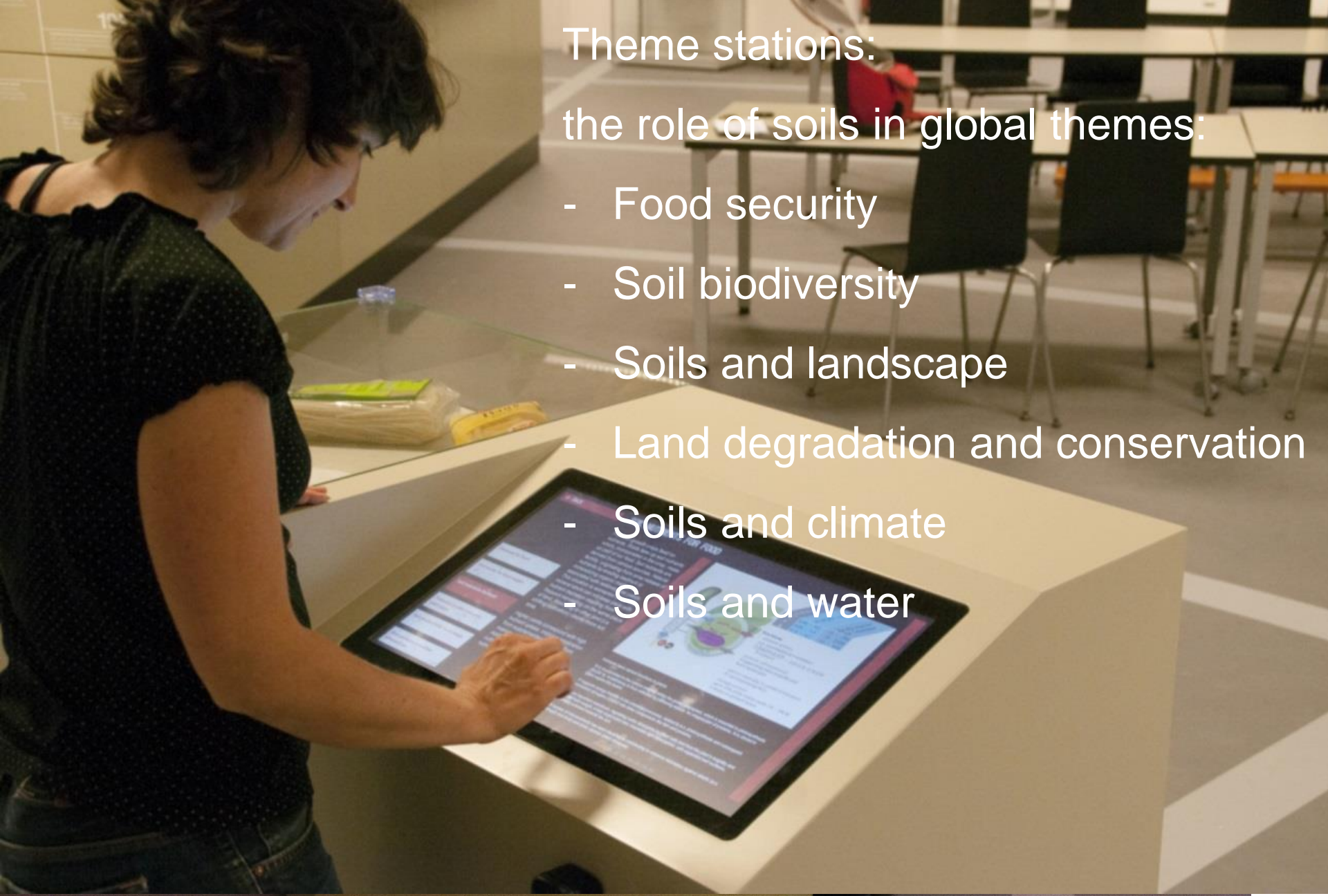
Classification (other) Salipanic brown desert soil, Panic Sali-Orthic Aridosol

### Physical

- [Particle size distribution:](#)
- [Water retention characteristics](#)
- [Other physical data](#)

- [Chemical characteristics:](#)
- [Soluble salts:](#)
- [Profile description:](#)

Uitklapbare links



Theme stations:  
the role of soils in global themes:

- Food security
- Soil biodiversity
- Soils and landscape
- Land degradation and conservation
- Soils and climate
- Soils and water



# Virtual soil museum project

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- The museum concept and content will be made available online for distant access to the collection and in support of the real museum
- Thematic expositions that have a relation with soil, that could be art, soil (monoliths), or objects in the field of natural science



# Virtual World Soil Museum

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Online access to the museum and its collections

- A virtual tour of the WSM (Google tour)
- Interactive selection and browse facilities of digital collections (e.g. monoliths, maps, images)
- Using various platforms (e.g. Google Earth)
- Not bound to physical limitations of the WSM



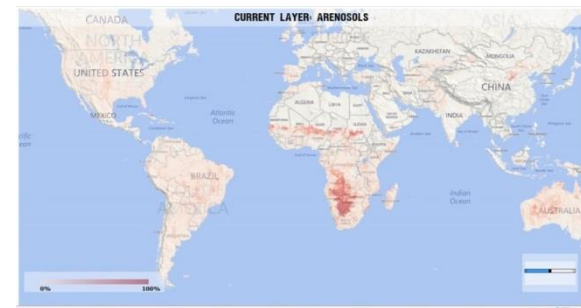
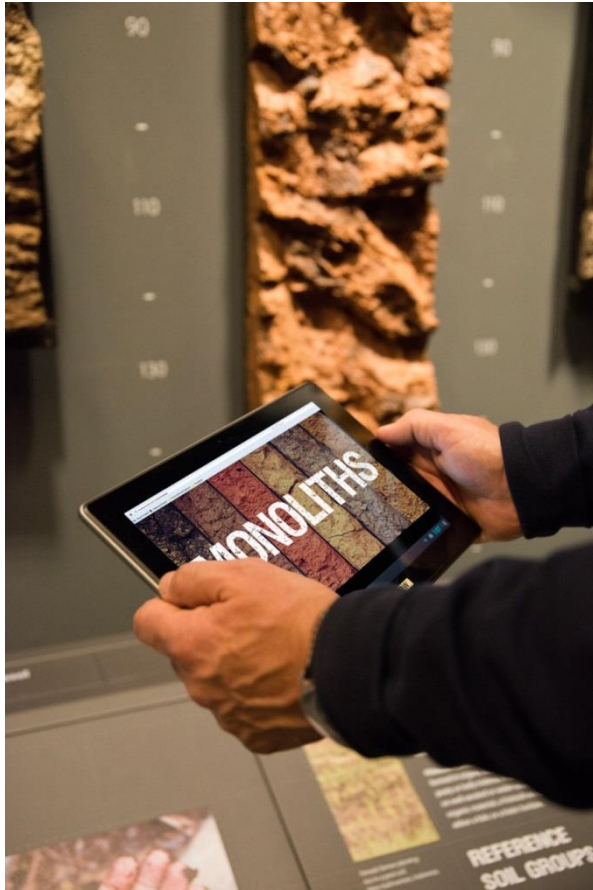
# Virtual soil museum project

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- The museum can be viewed as it is through a visual tour
- Online provision of access to multimedia in the museum and the information related to the soils in the exposition
- Not bound by physical limitations
- Can provide access to the whole collection and link with other relevant sources



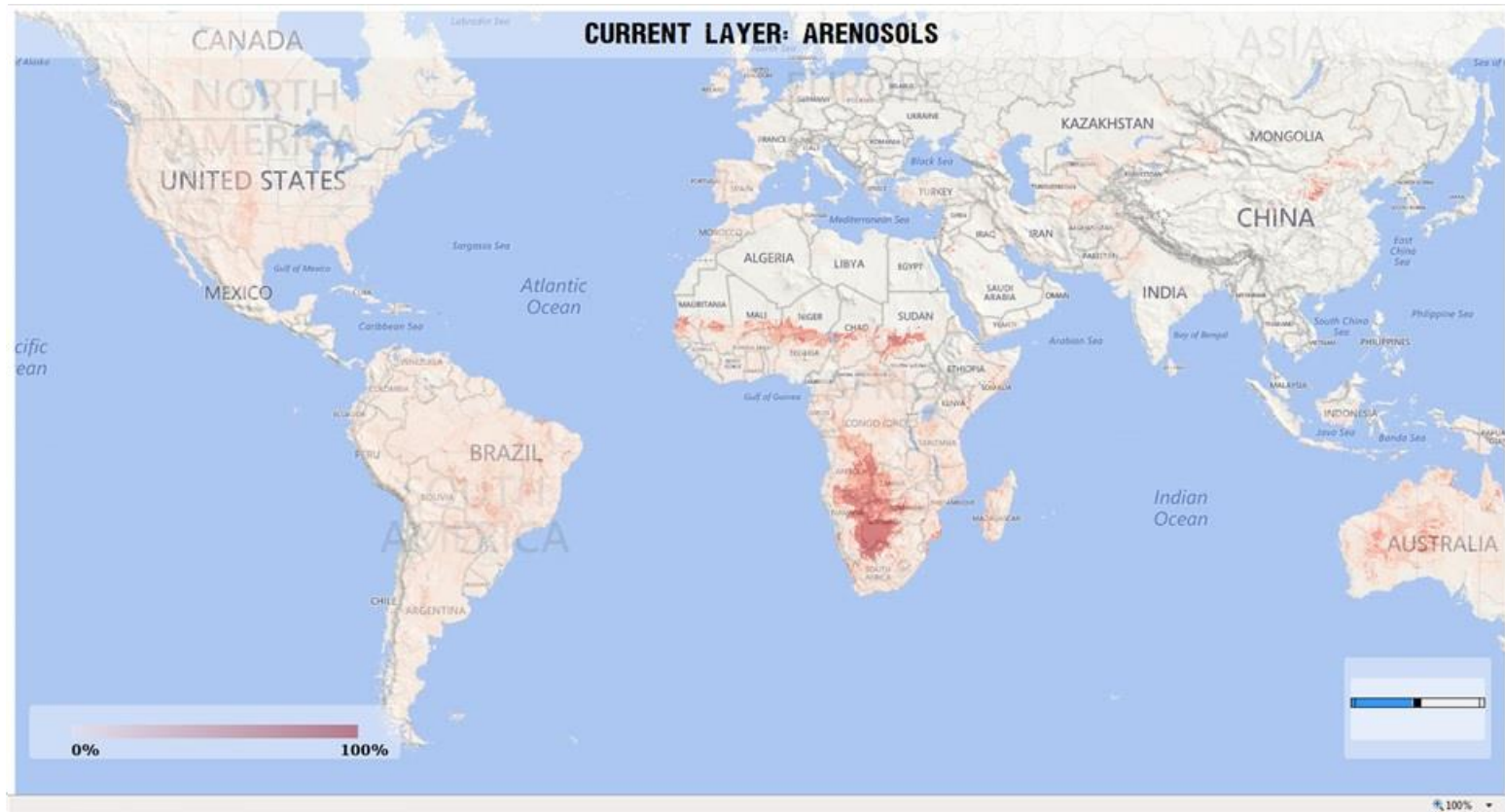
# Online access to the WSM soil collections and data



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# Example: Distribution soil reference groups



<http://museum.isric.eu/wrb/?wrb=Arenosols>



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# Example: Global soil degradation



<http://museum.isric.eu/glasod/index.html>



World Soil Information

World Soil Museum

Virtual Soil Museum

Physical collections

WSM exhibition space

Google tour

Content

software

IT hardware

Host

WSM multi-media

WSM website

Tour guide

Lecturer

Users



# WSM Website - Prototype



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<http://wsm.isric.org/>

# WSM Website - Prototype

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<http://wsm.isric.org/>

(DEMO - Prototype)

(SUGGESTION WELCOME !!!!)



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# Components of the VSM

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- Central table
- Collection search facility from the tablets
- Theme stations content and functionality
- Attractive new text content and presentation
- Make your own gallery facility
- Plan your visit to the WSM
- Links to ISRIC sources and platforms



# SOILS AND CLIMATE





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