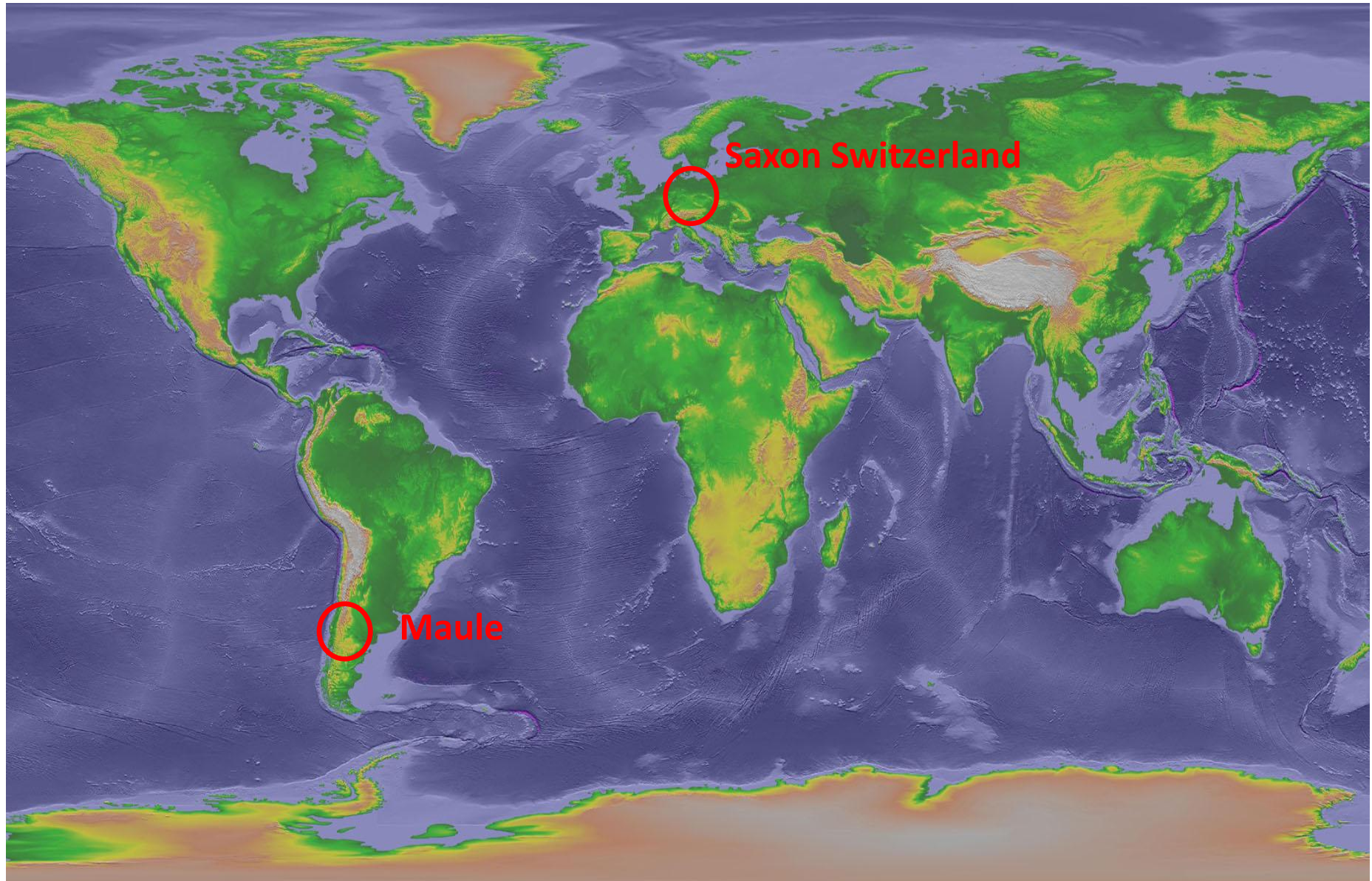




Development of a true-3D animation of landscape formation and comparison to other geological visualization methods. Examples: Saxon Switzerland, Germany and Maule, Chile

Joseph-Hermann Lademann, Manfred Buchroithner, Benjamin Schröter

Technische Universität Dresden, Institute of Cartography







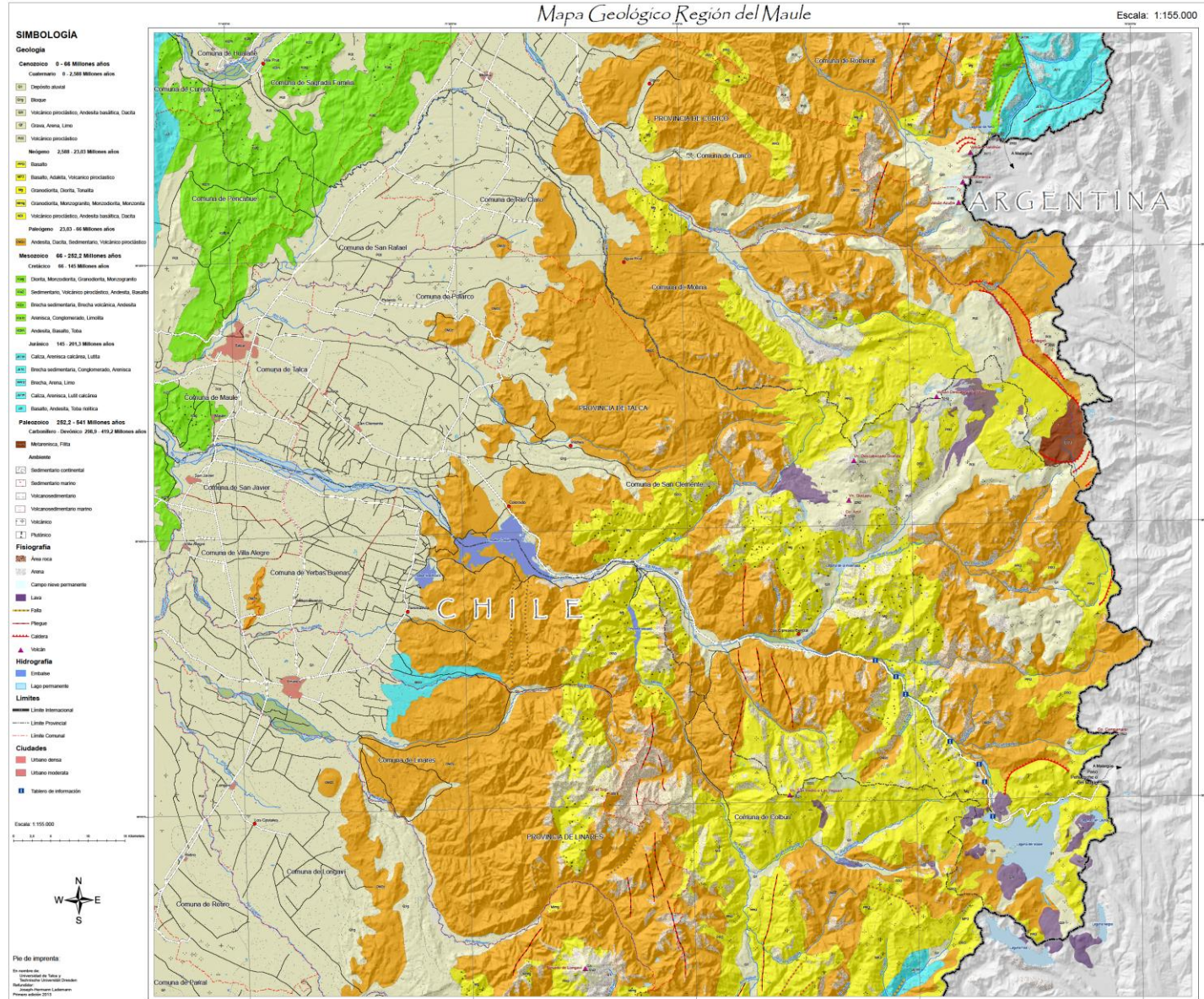
Some Information

1. Very different areas – Saxon Switzerland and Region del Maule
2. Geological issues can be visualized in different ways – 5 options shown here and compared with each other regarding three-dimensionality and spatio-temporal change:
 - A – Geological map (2D)
 - B – Lenticular foil map with three-flip (true 3D)
 - C – Physical geological model/puzzle (true 3D)
 - D – Non-temporal computer animation (pseudo 3D)
 - E – Temporal computer animation (true 3D *if on 3D screen*)



Geological map

Experts





Lenticular foil map

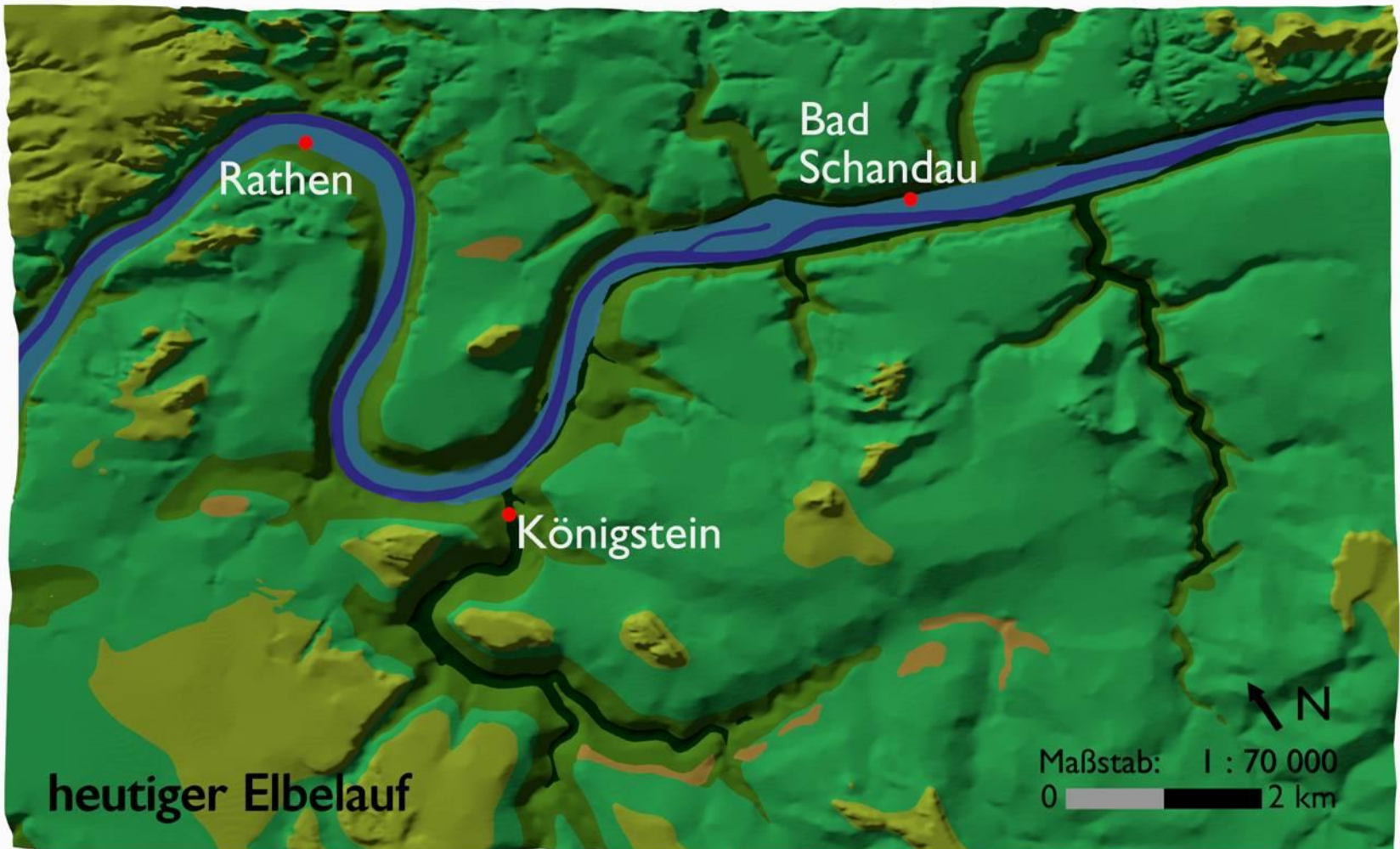
Good 3D impression

Laymen, children



Elbelaufentwicklung in der Sächsischen Schweiz

■ eiszeitl. Ablagerungen ■ Schrammstein Formation ■ Postelwitz-Schrammstein F. ■ Postelwitz F. ■ Schmilka F.





Physical geological model/puzzle

Good 3D impression

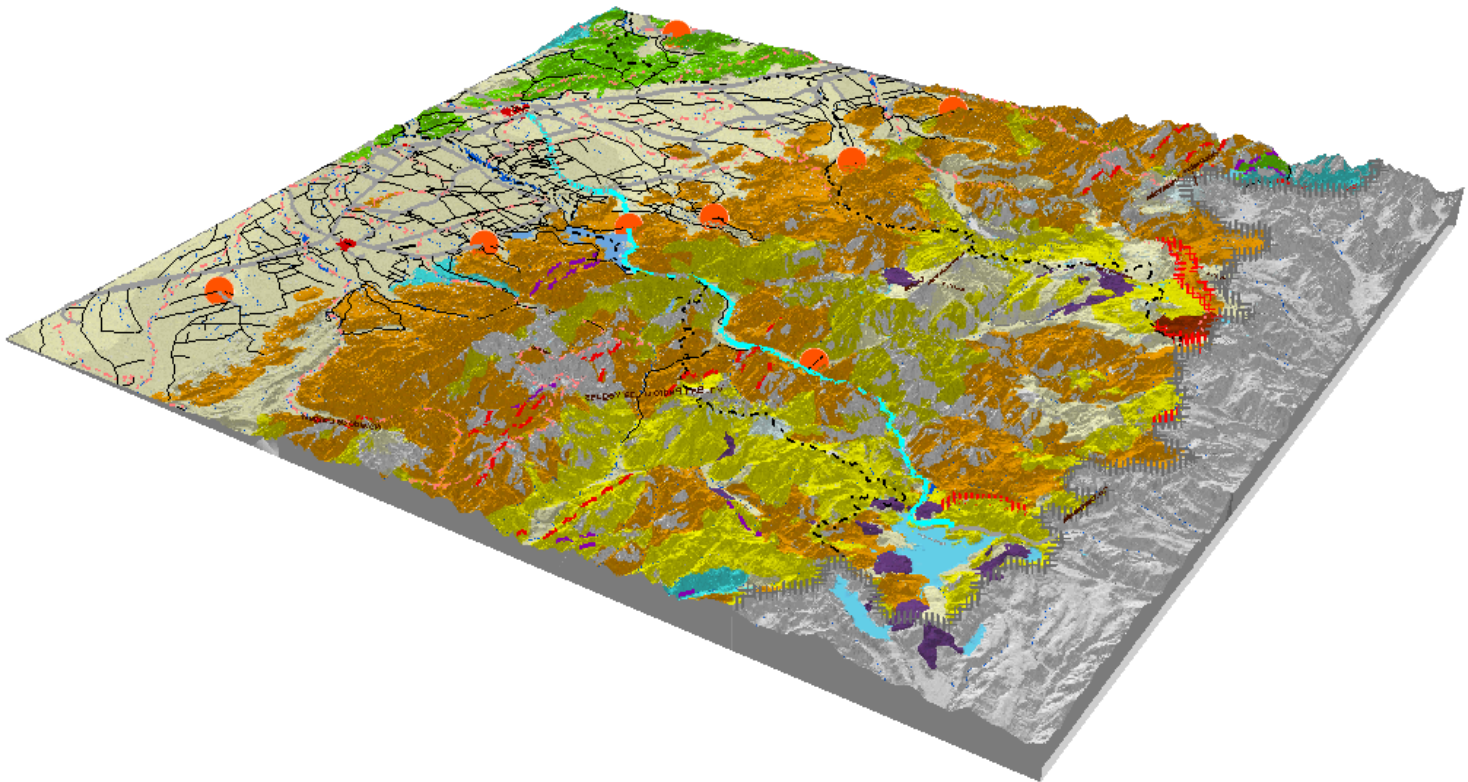
Laymen, children





Non-temporal computer animation

No constraints – all groups





Temporal computer animation

No constraints – all groups

Good 3D impression

Lot of knowledge in a short time

The Saxon Switzerland animation

1. Drill core samples, geological maps and literature, 5 m DEM
2. ArcGIS, Photoshop, Blender, Cinema 4D, Adobe After Effects



Thank you very much
for your attention!

Further questions: joseph.lademann@gmx.de

