

Świebodzice Unit revisited – kinematic, structural and facial evolution till now

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Zapadlisko Świebodzic:
strukturalno-facjalne i kartograficzne przesłanki
budowy geologicznej, możliwy schemat rozwoju tej
jednostki oraz sugestie dalszych badań

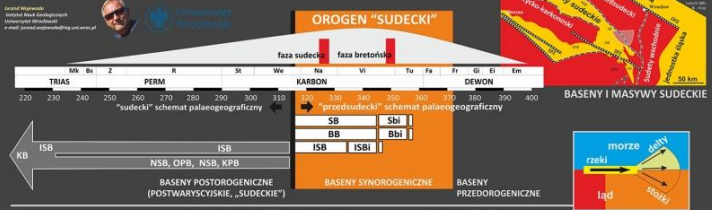




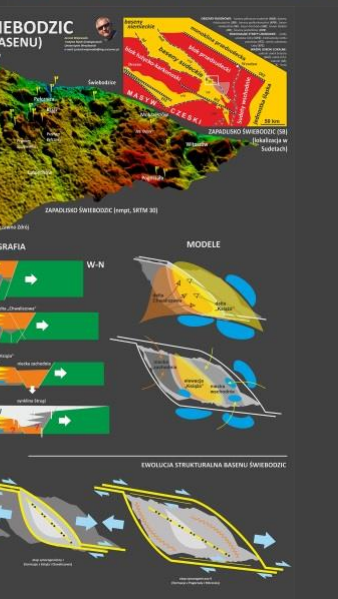
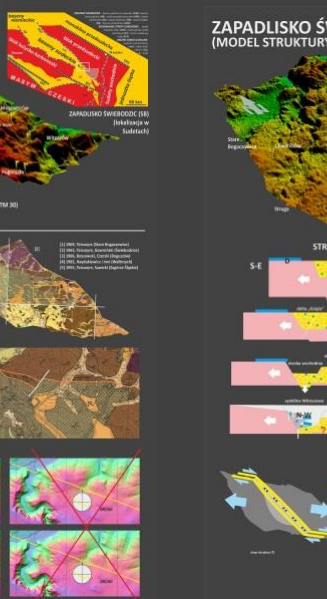
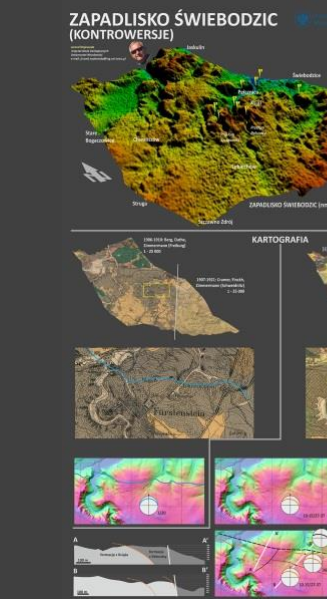
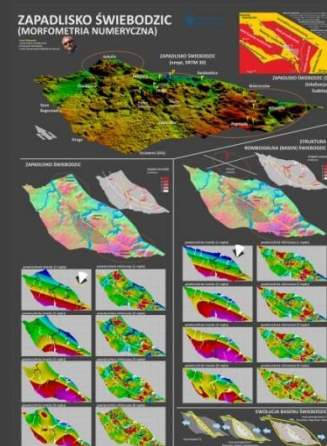
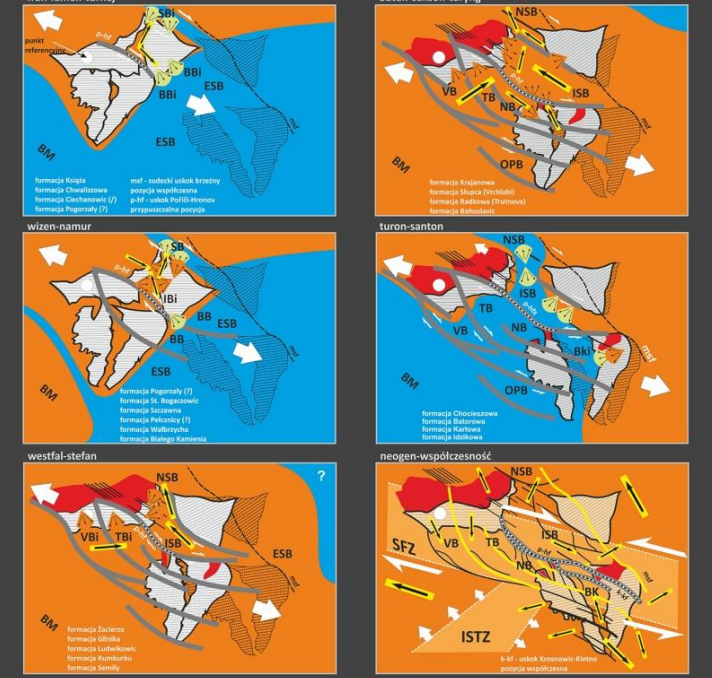
jednostka Świebodzic Świebodzice Unit

The evolution of the Sudetes in the sedimentological record: 30th Anniversary of the qualifying session of the Regional Meeting of IAS 86 , (Kudowa Zdrój, 23-25 May 2014)

BASENY SEDYMENTACYJNE SUDETÓW (EKSTENSYJNY MODEL ROZWOJU)



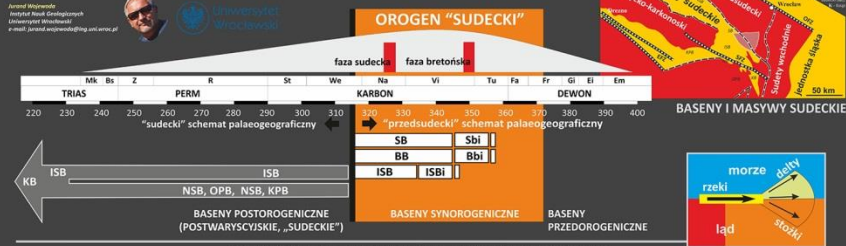
SCHEMATY STRUKTURALNO-PALEOGRAFICZNE



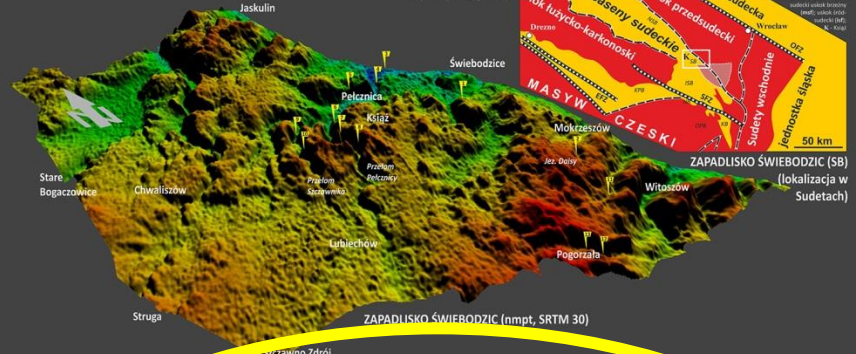


jednostka Świebodziec Świebodzice Unit

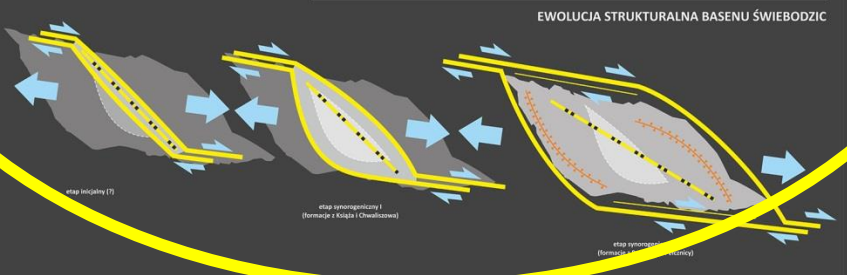
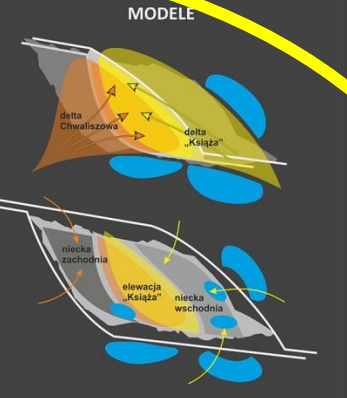
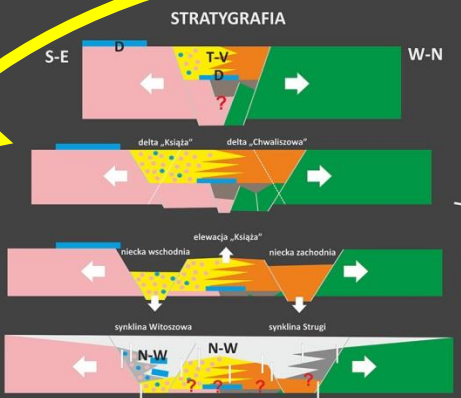
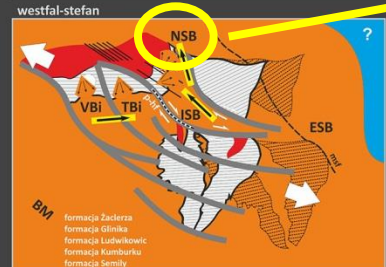
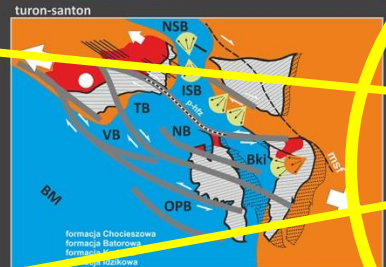
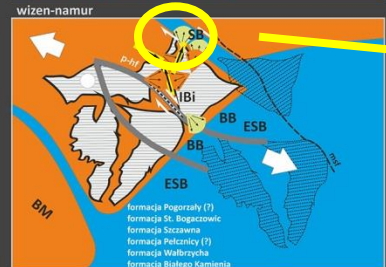
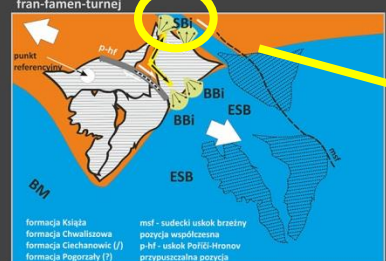
BASENY SEDYMENTACYJNE SUDETÓW (EKSTENSYJNY MODEL ROZWOJU)



ZAPADLIŚKO ŚWIEBODZIC (MODEL STRUKTURY BASENU)



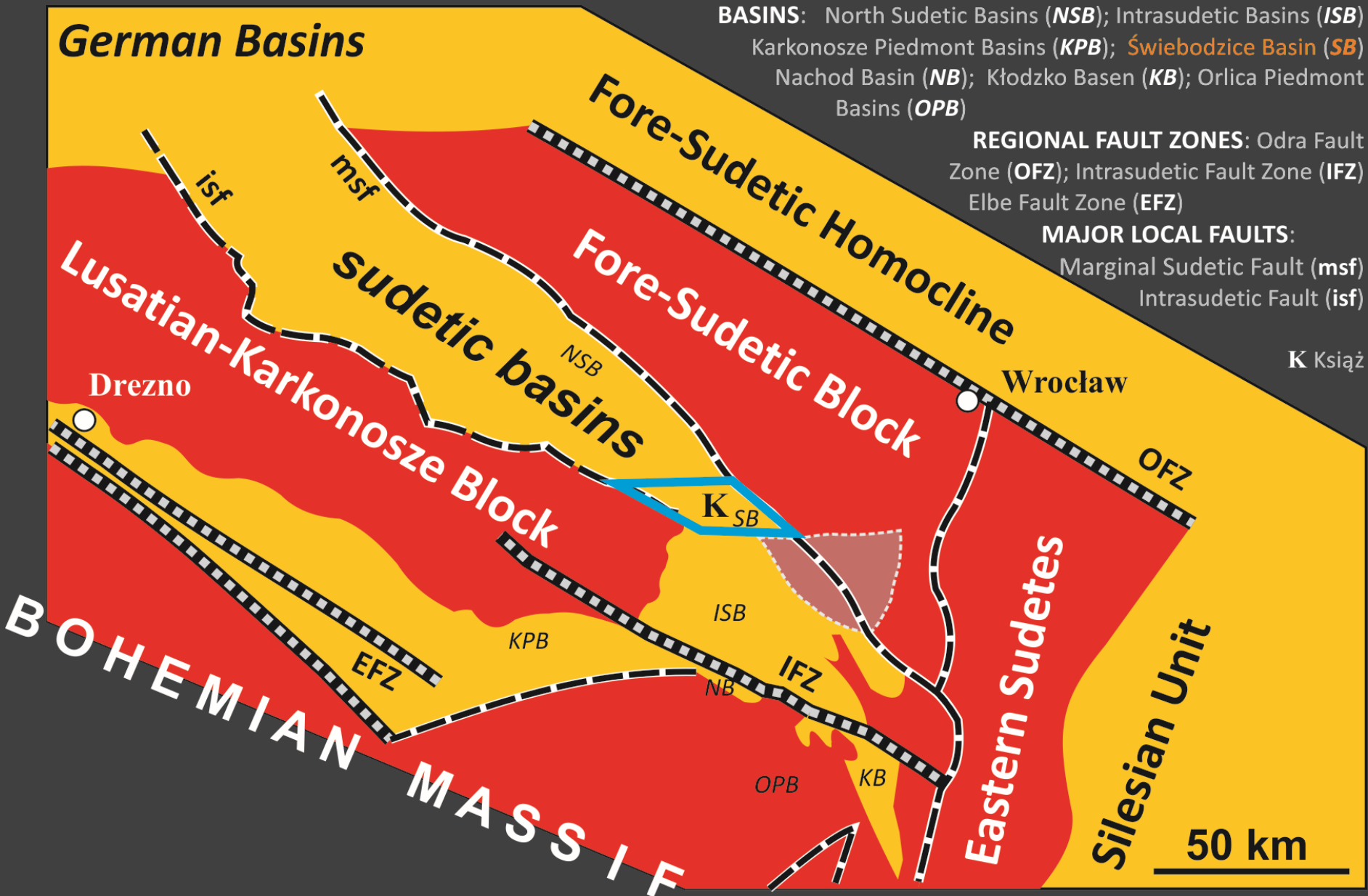
SCHEMATY STRUKTURALNO-PALEOGRAFICZNE



ŚWIEBODZICE UNIT IN THE SUDETES

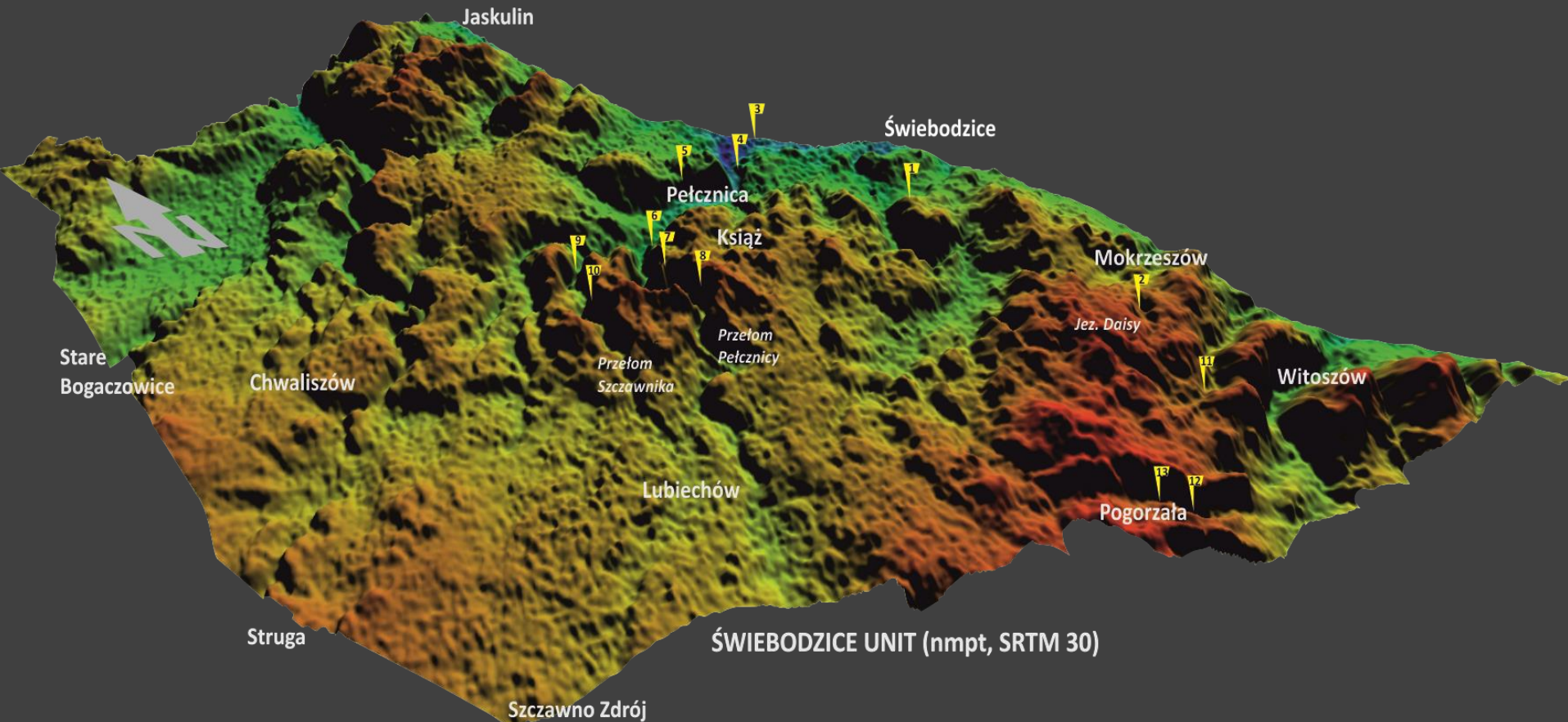


German Basins



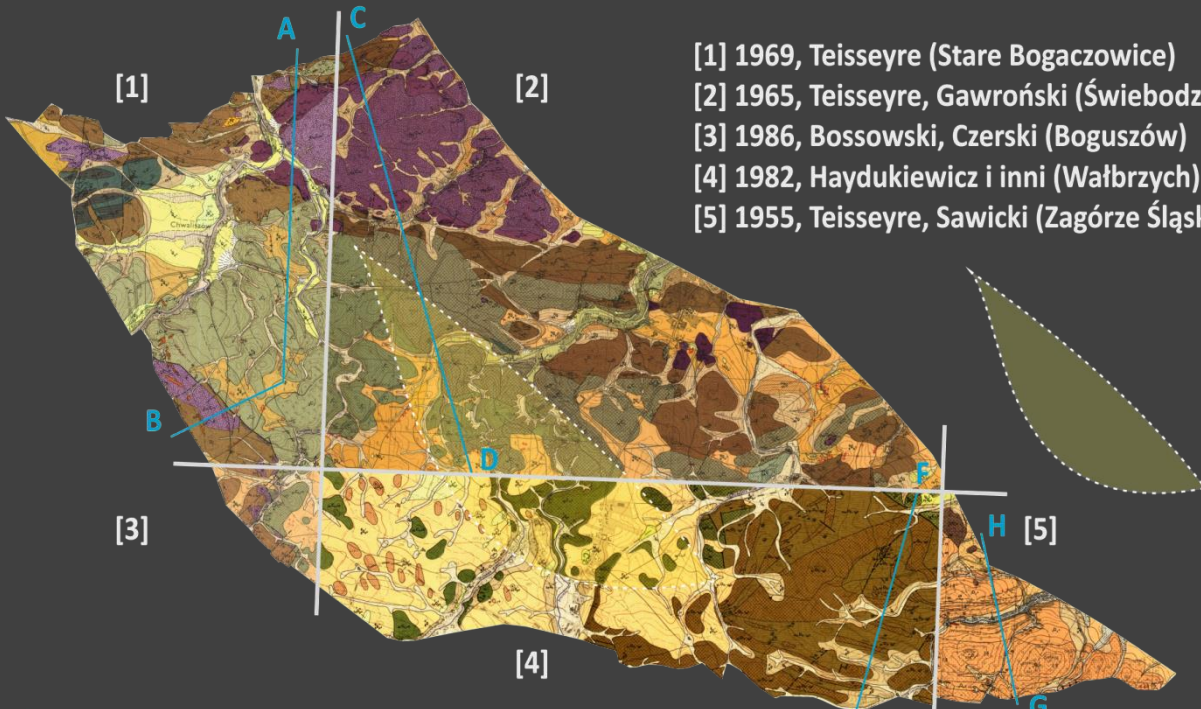


ŚWIEBODZICE UNIT IN THE SUDETES (DEM, SRTM 30)





ŚWIEBODZICE UNIT, GEOLOGY (maps after 1945th)



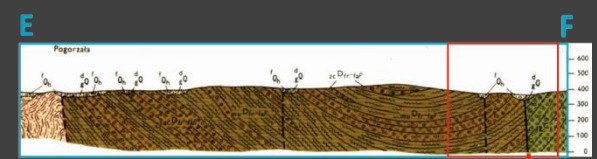
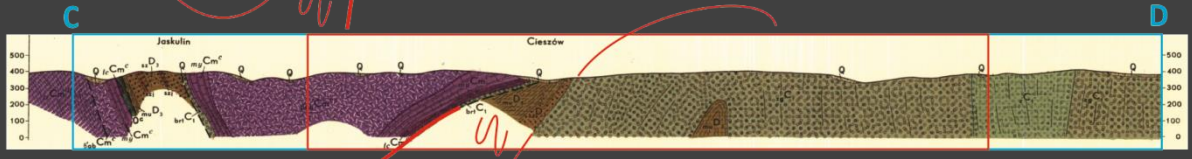
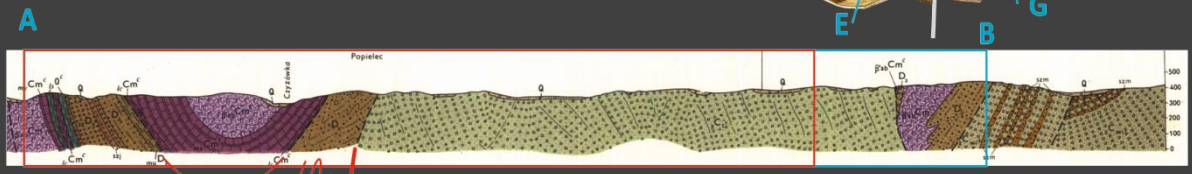
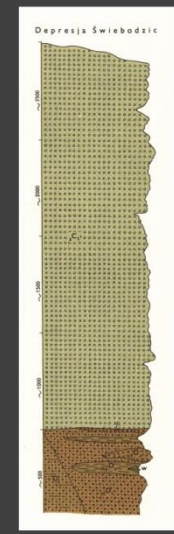
- [1] 1969, Teisseyre (Stare Bogaczowice)
- [2] 1965, Teisseyre, Gawroński (Świebodzice)
- [3] 1986, Bossowski, Czerski (Boguszów)
- [4] 1982, Haydukiewicz i inni (Wałbrzych)
- [5] 1955, Teisseyre, Sawicki (Zagórze Śląskie)

[4]

[2]

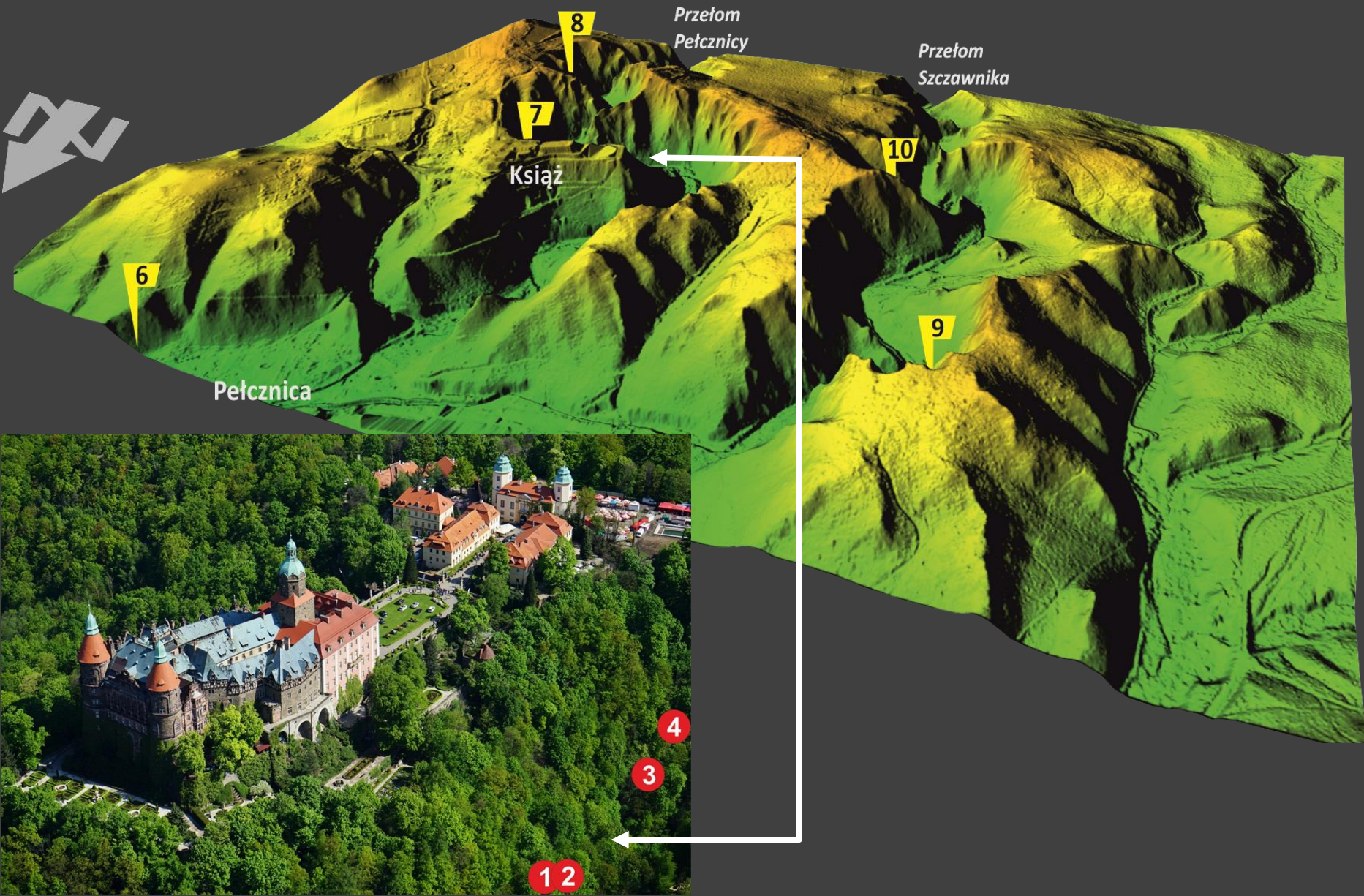


[1]



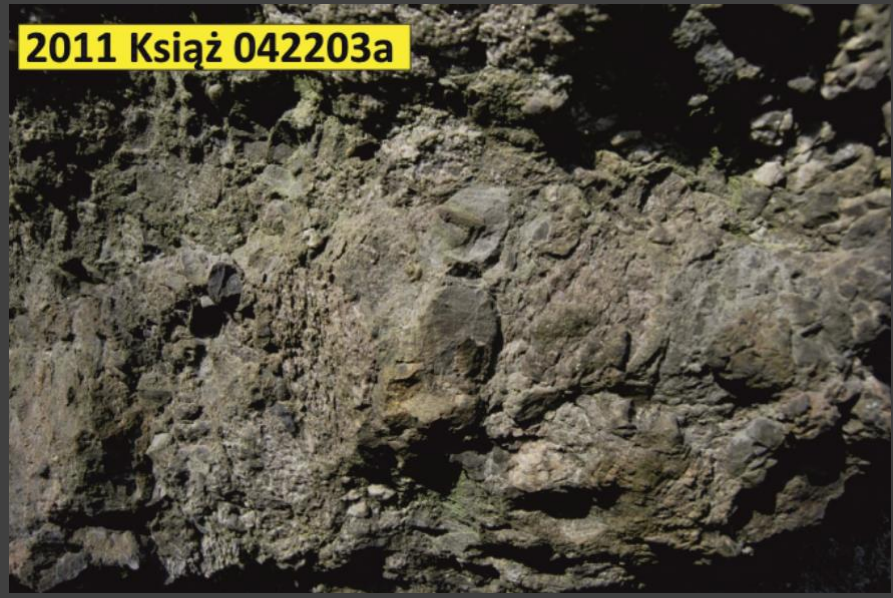
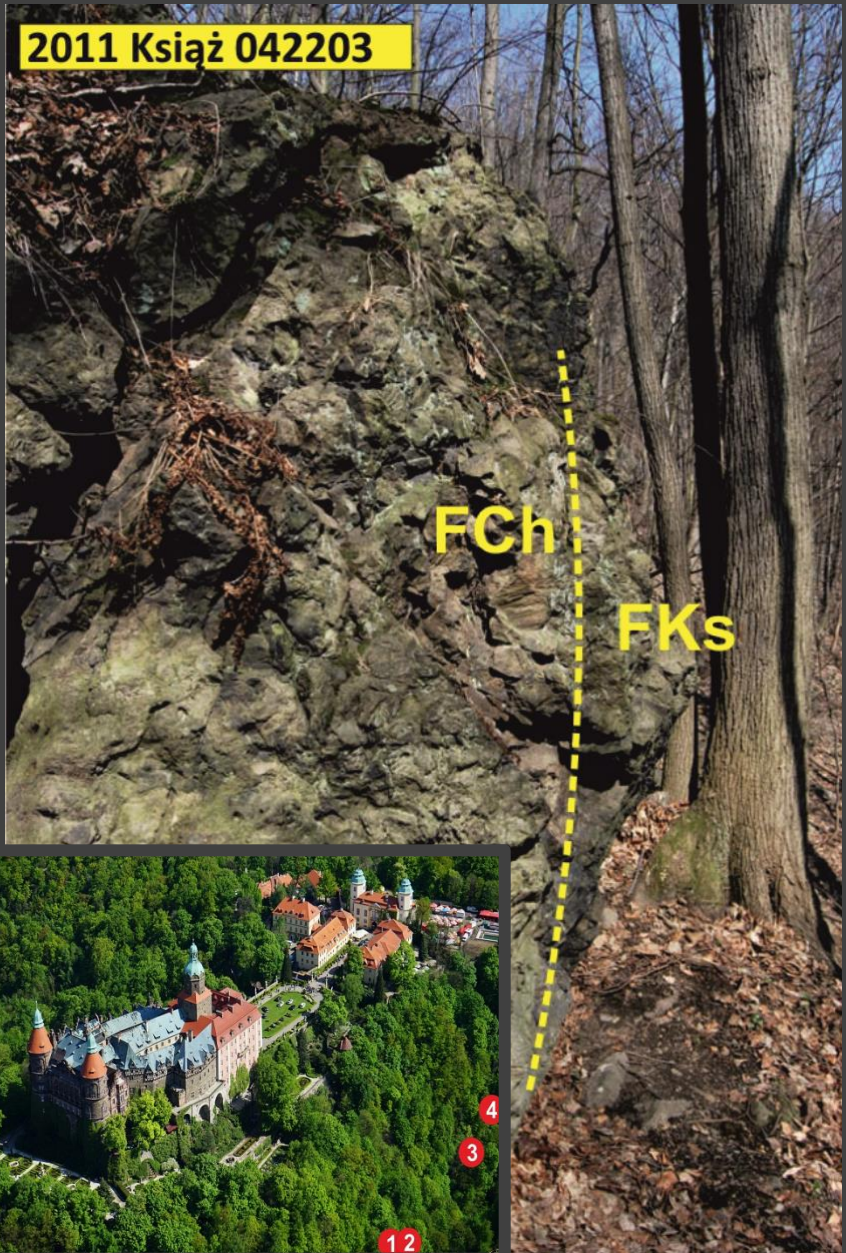


ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (nmpt, LIDAR, 0.3 m)





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)

2011 Książ 052203

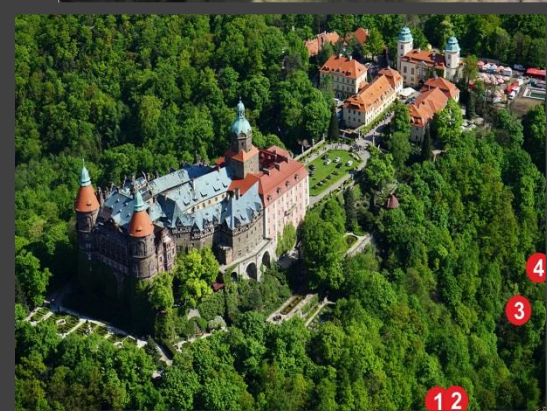
FCh



2011 Książ 052203a

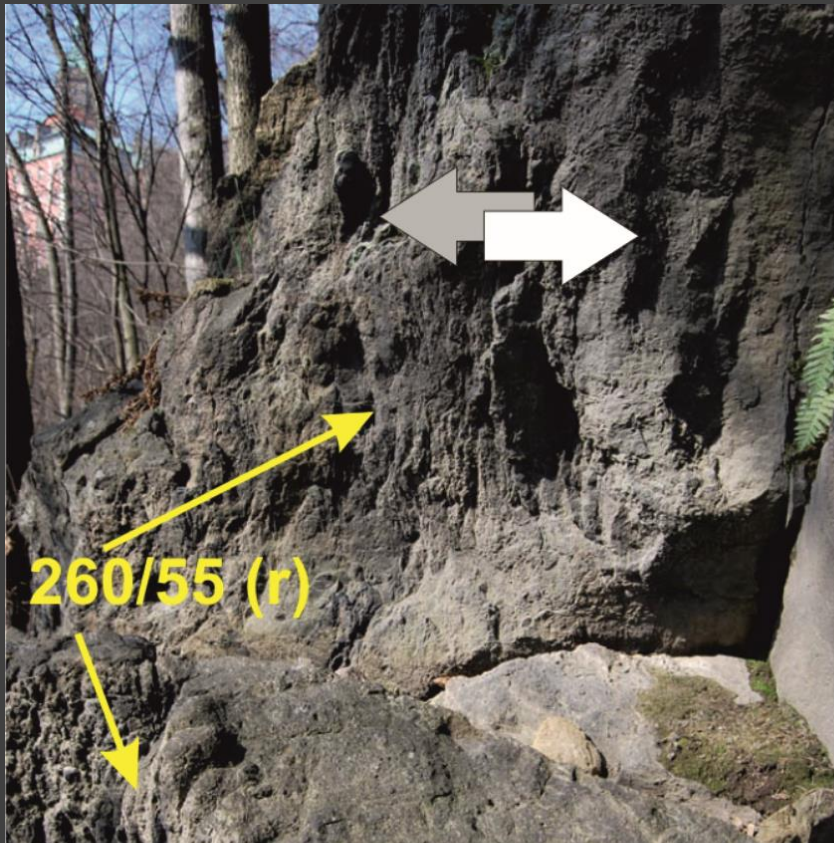


2011 Książ 052203b





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)





ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)

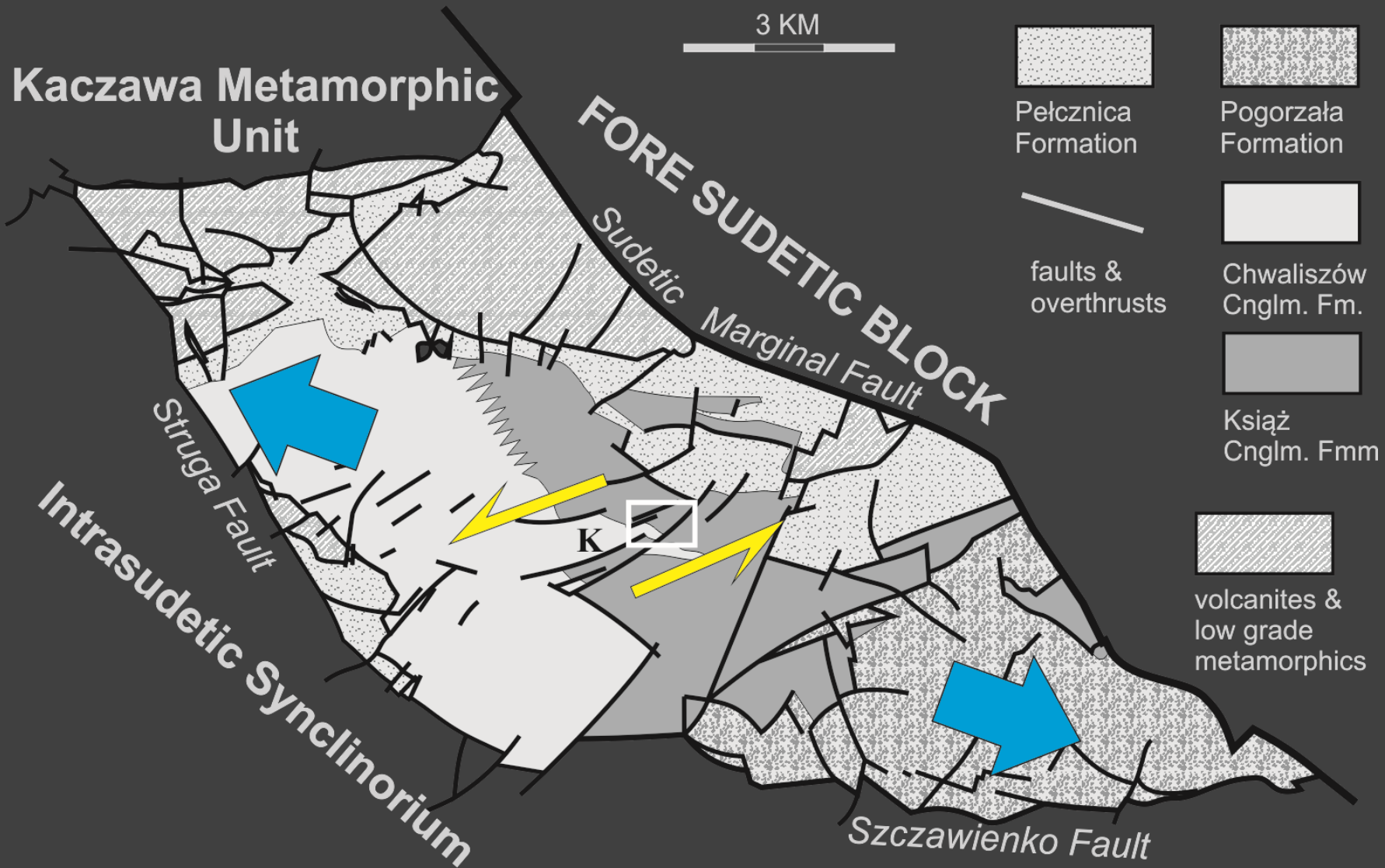


ŚWIEBODZICE UNIT, KSIĄŻ MASSIF (facies, joints, faults...)



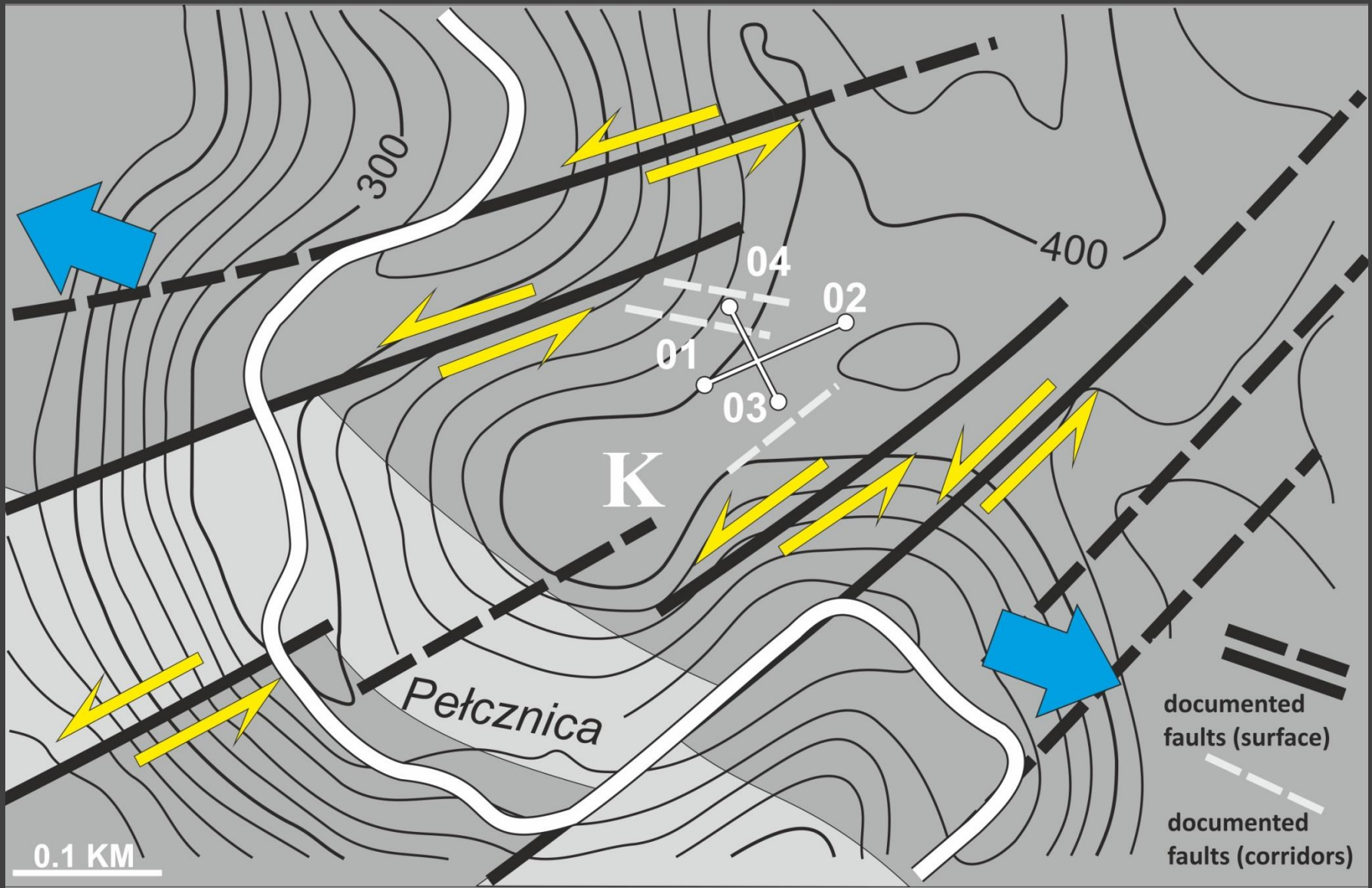


ŚWIEBODZICE UNIT (geology, kinematic scheme)





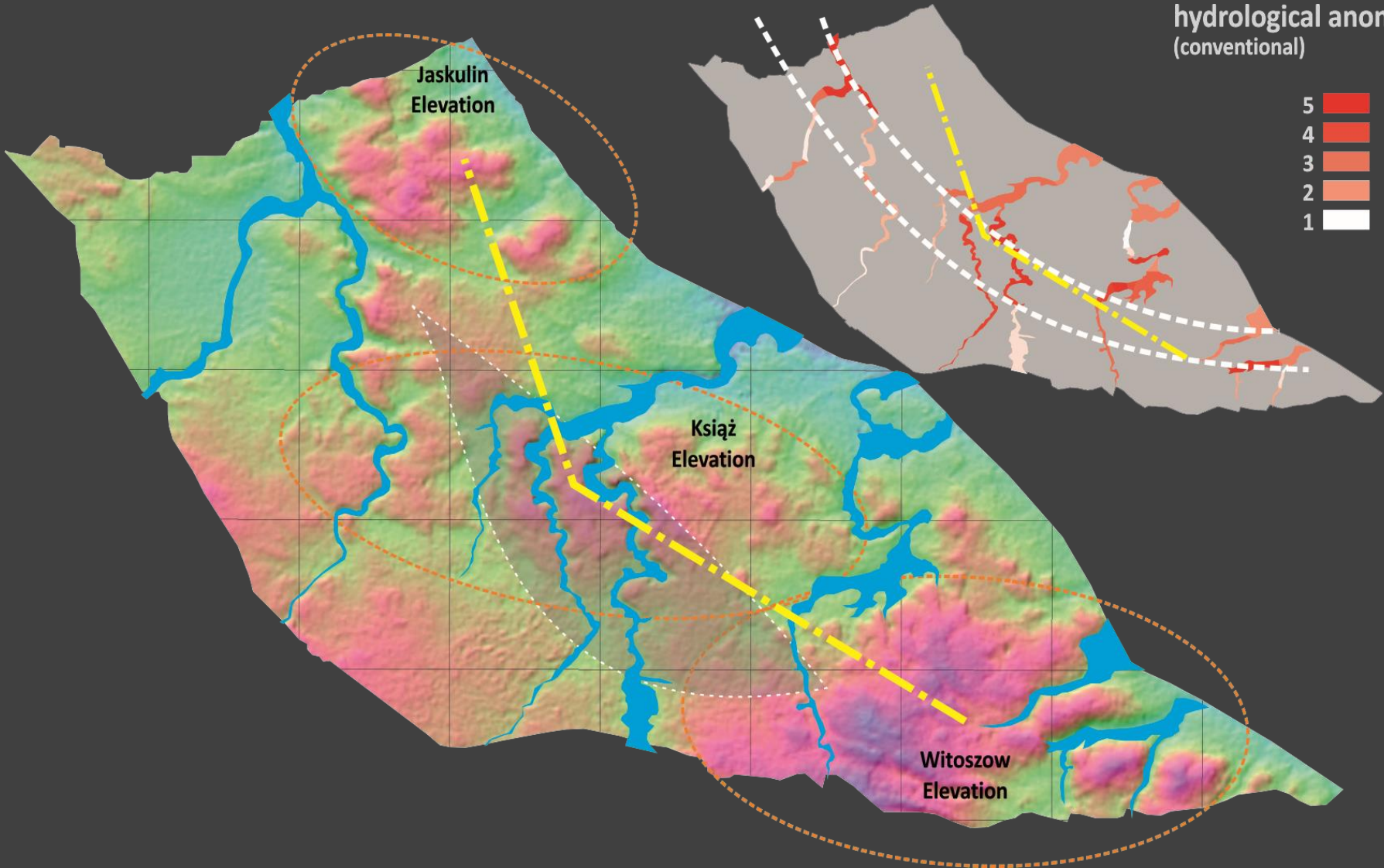
KSIĄŻ „MASSIF” (geology, kinematic scheme)



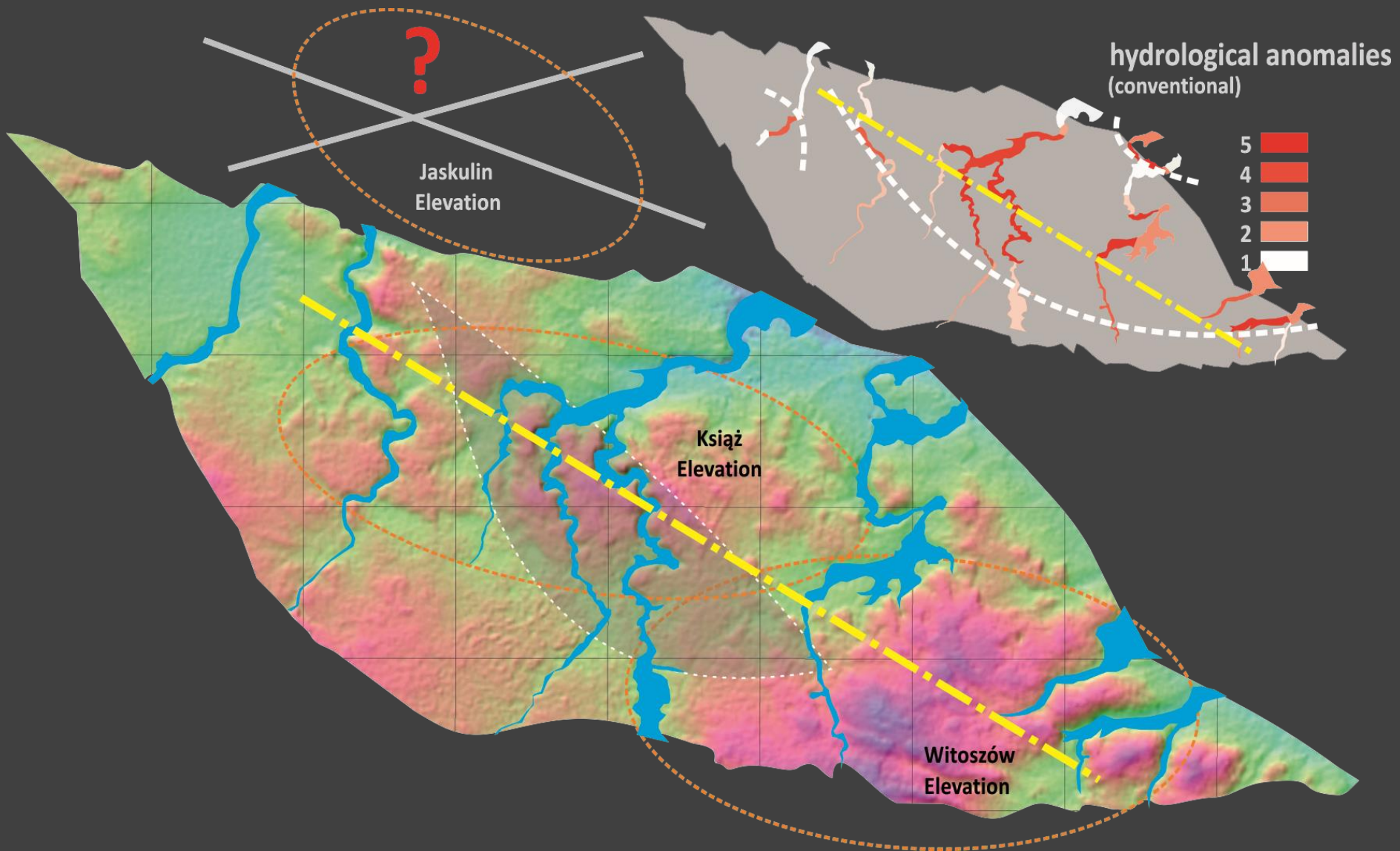


ŚWIEBODZICE UNIT „DEPRESSION” (traditional boundaries, nmpt, LIDAR, 0.3 m, hydrological anomalies)

hydrological anomalies
(conventional)



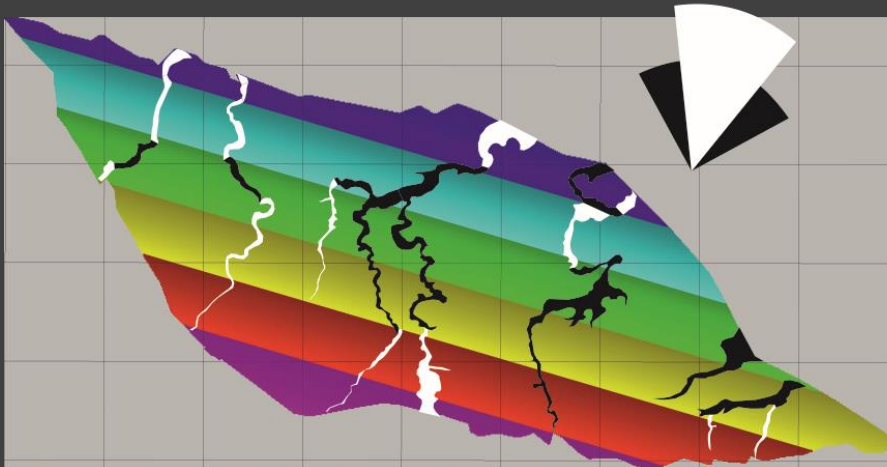
ŚWIEBODZICE UNIT „RHOMBOIDAL BLOCK” (newly defined boundaries, nmppt, LIDAR, 0.3 m, hydrological anomalies)



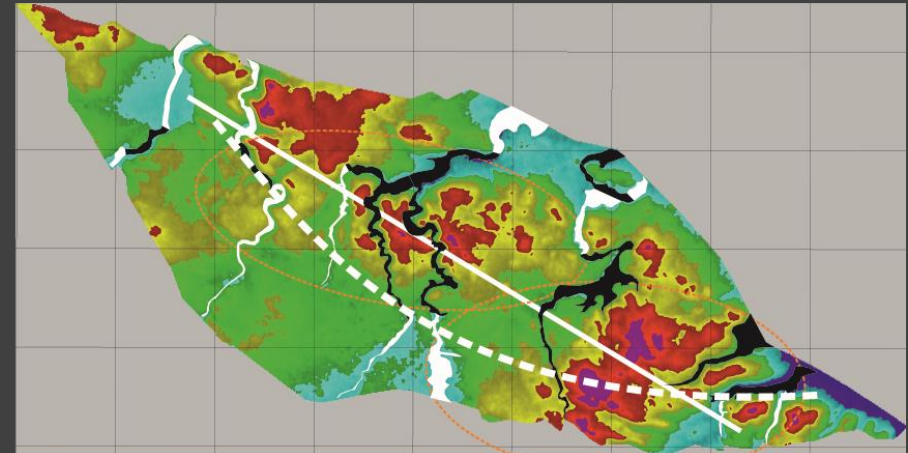


ŚWIEBODZICE UNIT „RHOMBOIDAL BLOCK” (nmpt, LIDAR, 0.3 m, hydrological anomalies, trend & deviation surfaces)

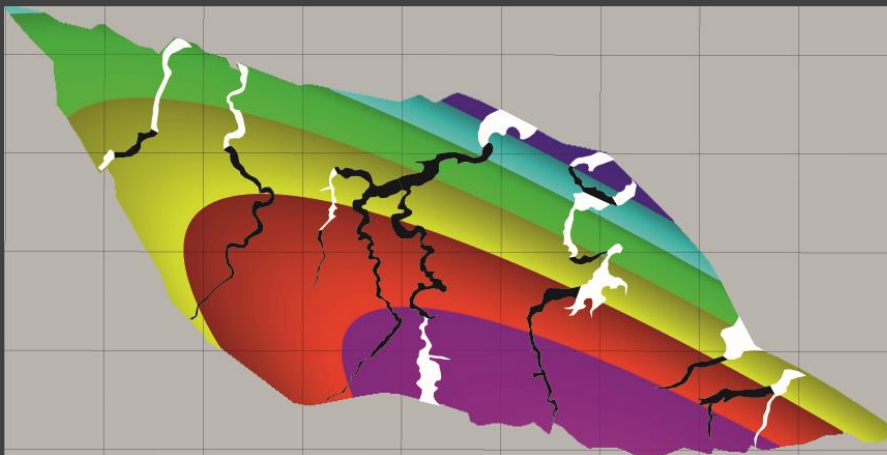
1st order trend surface



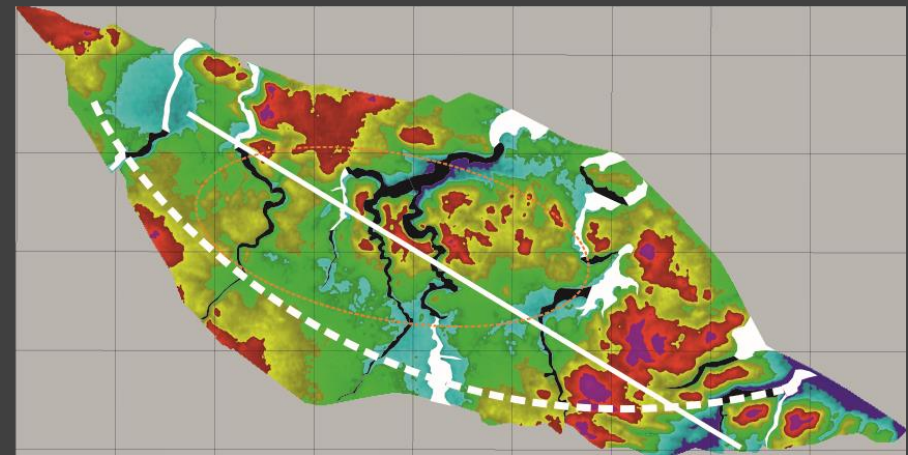
1st order deviation surface



2nd order trend surface



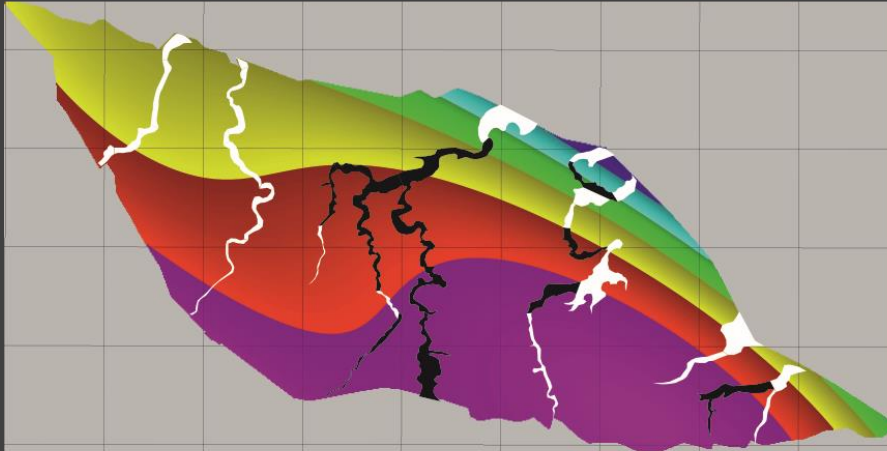
2nd order deviation surface



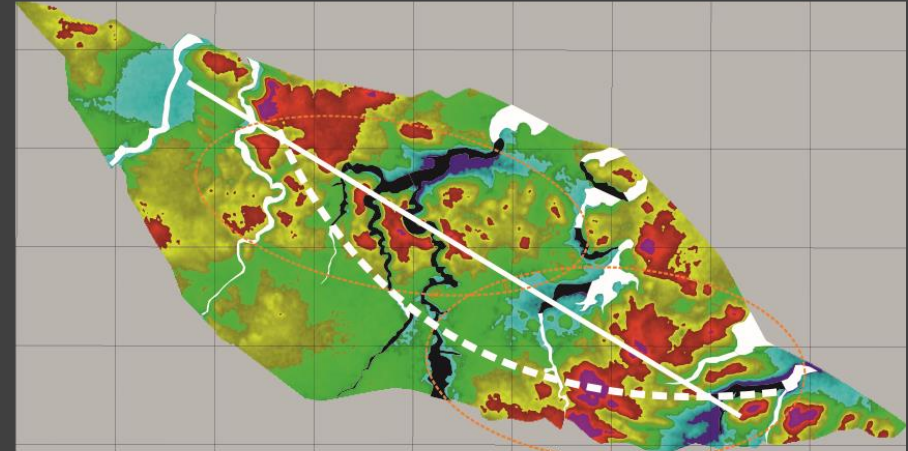


ŚWIEBODZICE UNIT „RHOMBOIDAL BLOCK” (nmpt, LIDAR, 0.3 m, hydrological anomalies, trend & deviation surfaces)

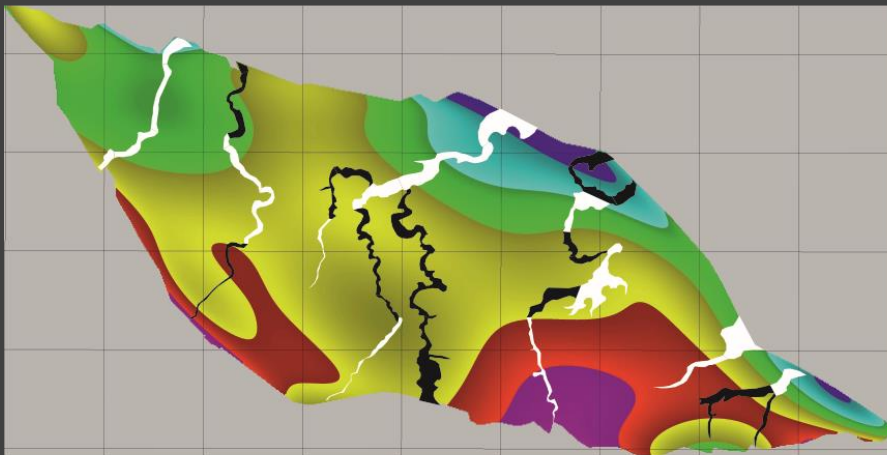
3rd order trend surface



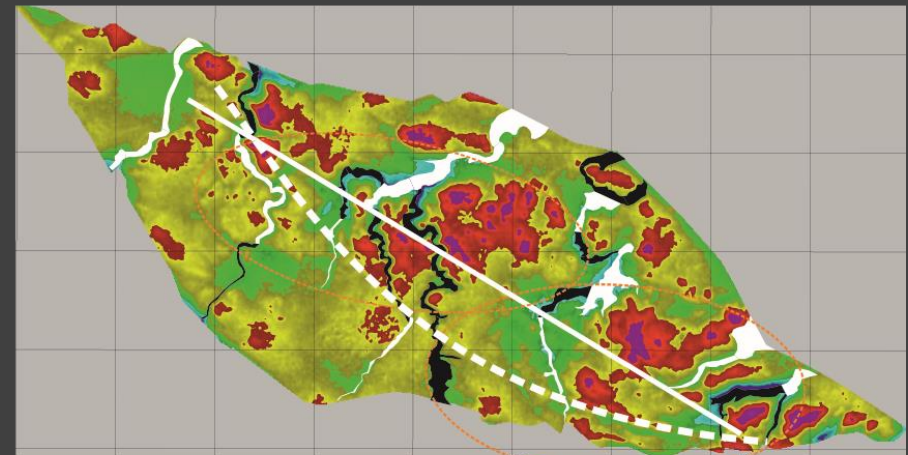
3rd order deviation surface



8th order trend surface



8th order deviation surface



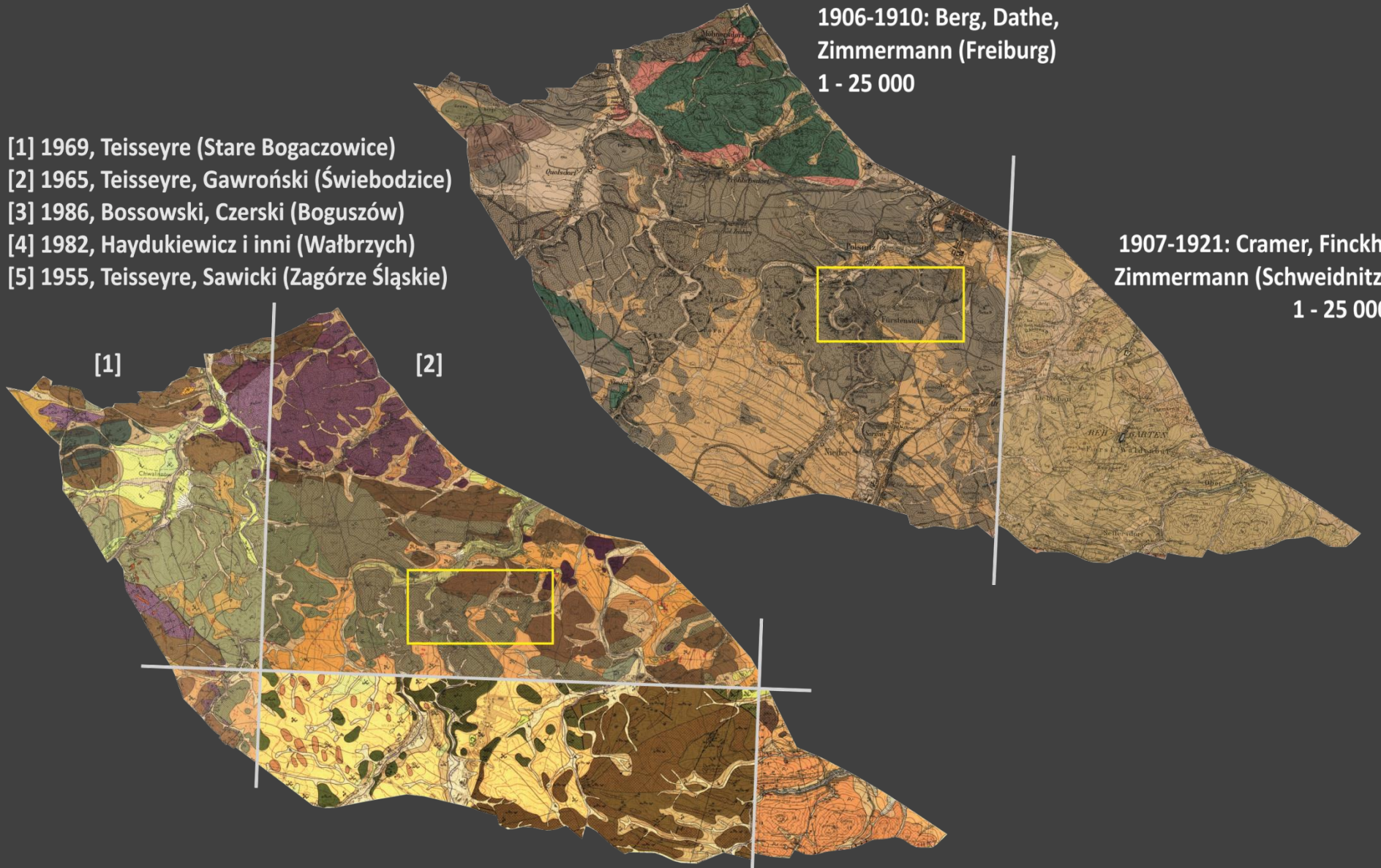


ŚWIEBODZICE UNIT „Książ Massif” (geological maps 1906-1986)

1906-1910: Berg, Dathe,
Zimmermann (Freiburg)
1 - 25 000

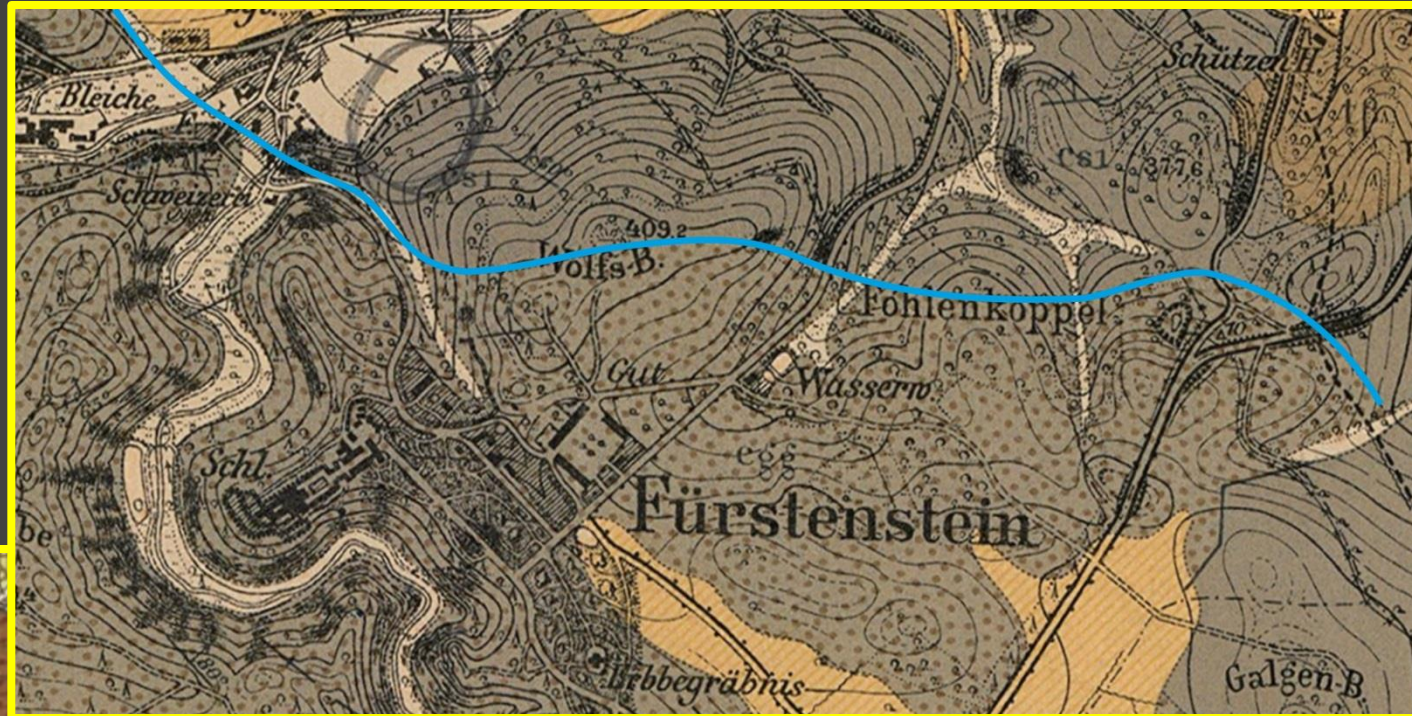
1907-1921: Cramer, Finckh,
Zimmermann (Schweidnitz)
1 - 25 000

- [1] 1969, Teisseyre (Stare Bogaczowice)
- [2] 1965, Teisseyre, Gawroński (Świebodzice)
- [3] 1986, Bossowski, Czerski (Boguszów)
- [4] 1982, Haydukiewicz i inni (Wałbrzych)
- [5] 1955, Teisseyre, Sawicki (Zagórze Śląskie)



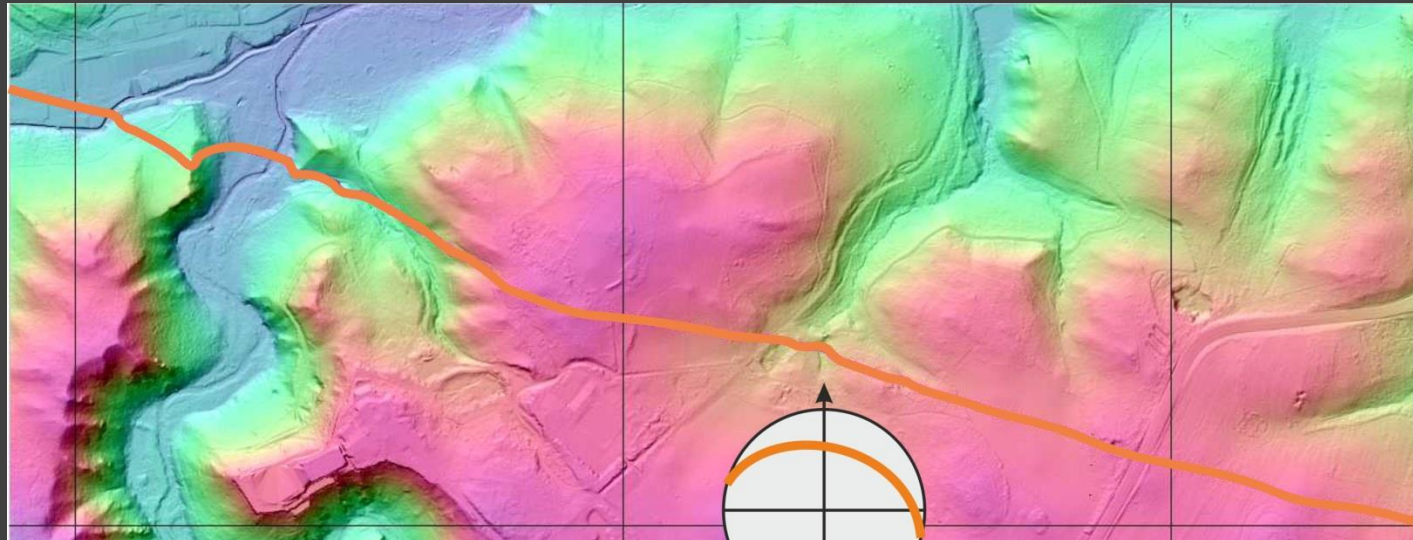


ŚWIEBODZICE UNIT „Książ Massif” (geological maps 1906-1986)

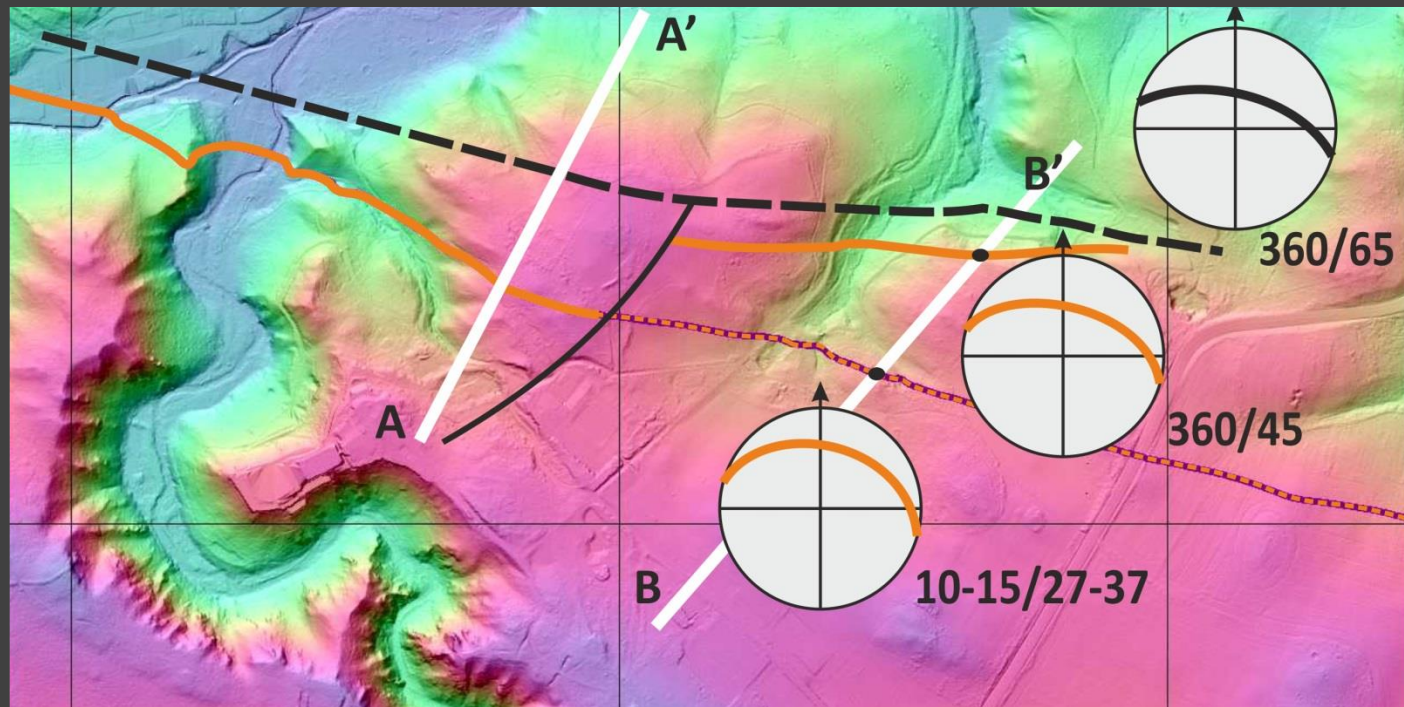




„KSIĄŻ MASSIF” (Książ Fm / Pełcznica Fm boundary)



10-15/27-37



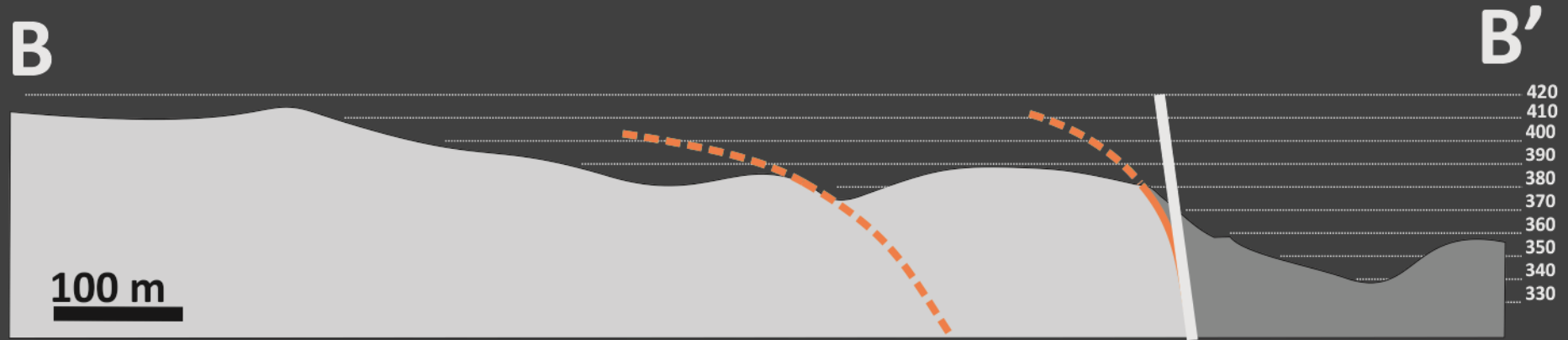
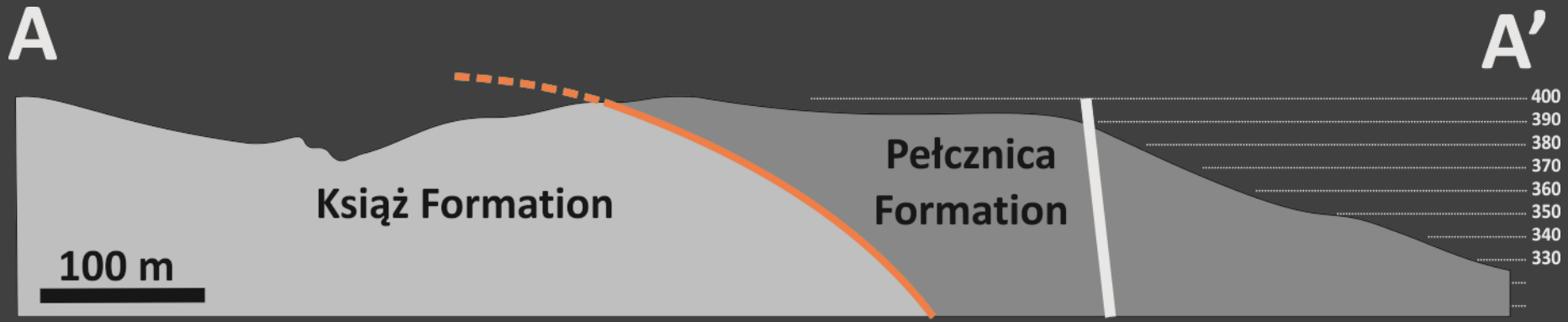
10-15/27-37

360/65

360/45



„KSIĄŻ MASSIF” (Książ Fm / Pełcznica Fm boundary)





ŚWIEBODZICE UNIT LITOSTRATIGRAPHY

wg Górecka-Nowak (2014)

wg. Wojewoda (2014)

Westphalian

Namurian

former schemes

Visean

Tournaisian

Devonian

Książ &
Chwaliszów
conglomerates

Pogorzała &
Pełcznica
heterolites

Świebodzice &
Mokrzeszów
limestones

Pogorzała &
Pełcznica
heterolites

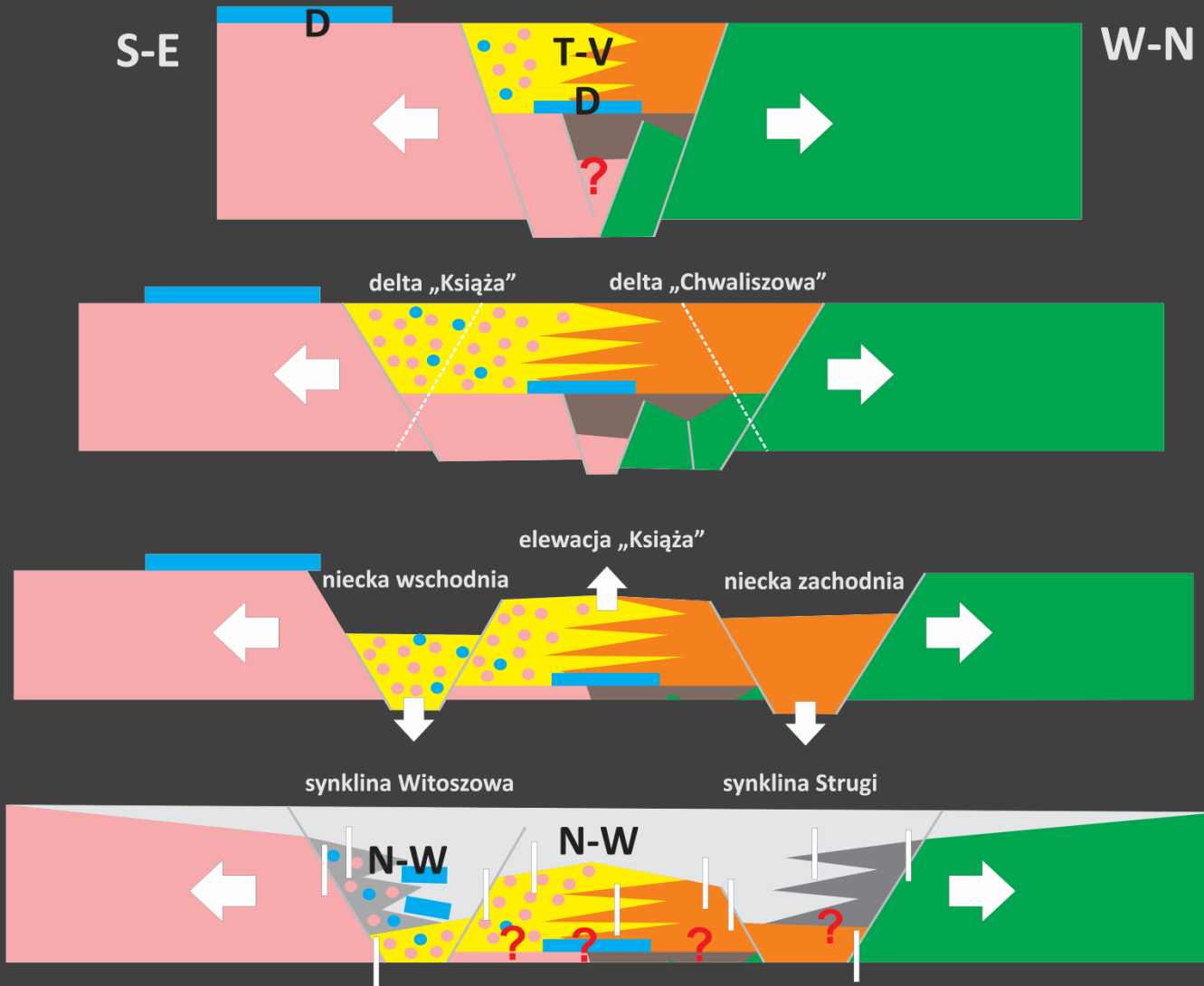
Książ &
Chwaliszów
conglomerates

Świebodzice &
Mokrzeszów
limestones



ŚWIEBODZICE „RHOMBOIDAL BASIN” LITOSTRATIGRAPHY

pre-Carboniferous (Frasnian/Famenian)



Turnaisian / Viséan

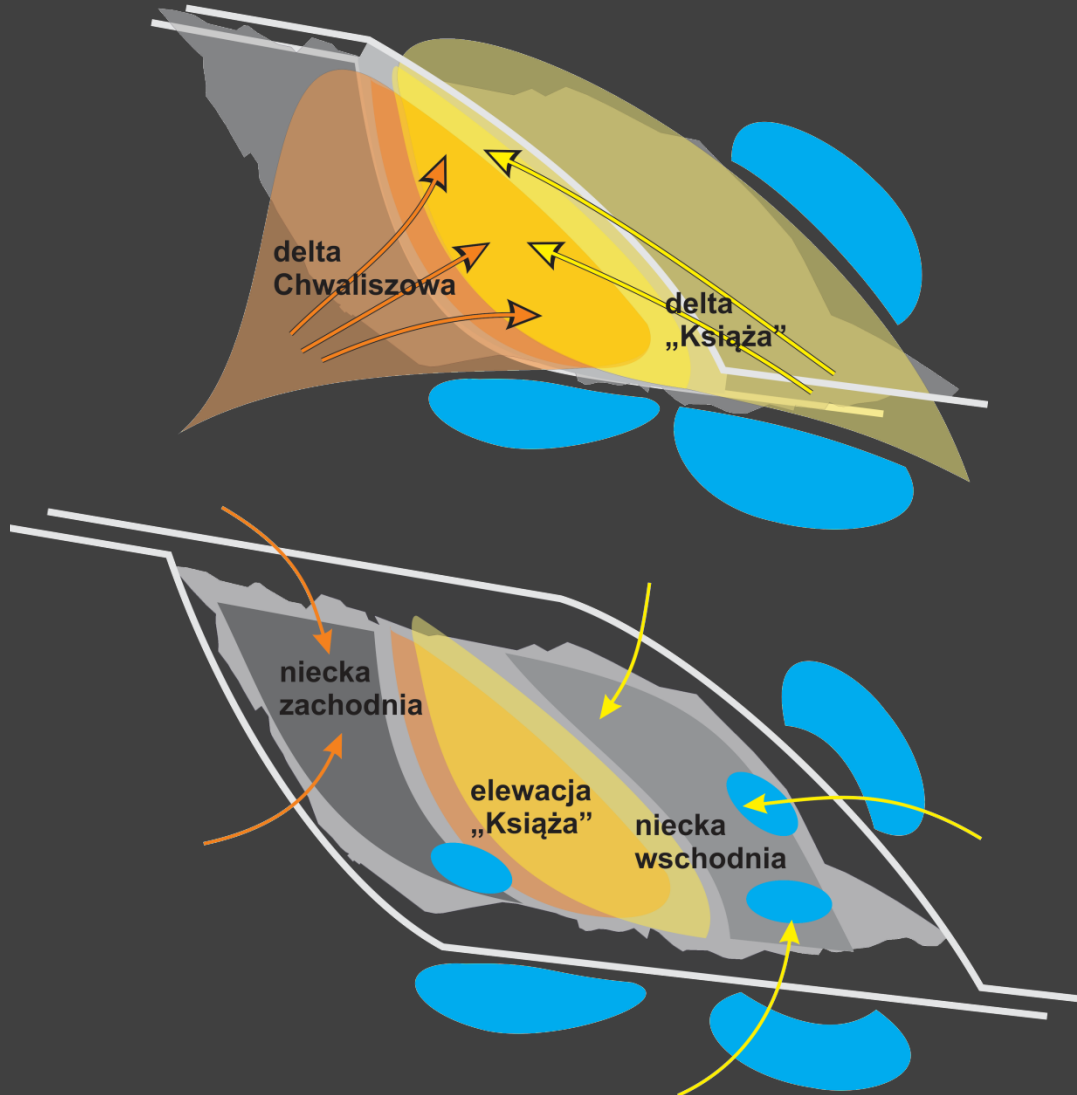
Namurian / Westphalian

Carboniferous



ŚWIEBODZICE „RHOMBOIDAL BASIN ” LITOSTRATIGRAPHY

pre-Carboniferous (Frasnian/Famenian)

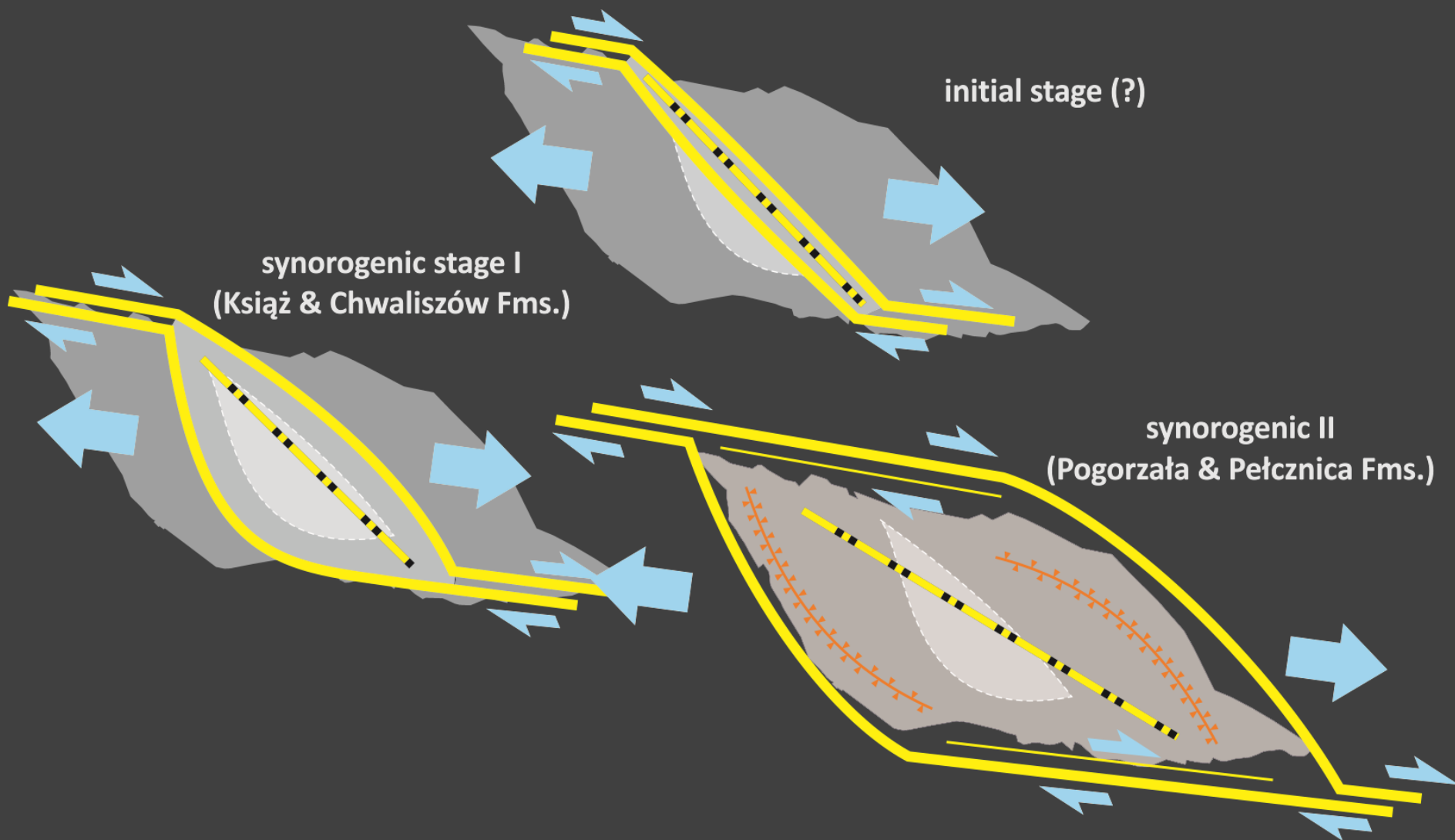


Turnaisian / Viséan

Namurian / Westphalian

Carboniferous

ŚWIEBODZICE „RHOMBOIDAL BASIN” EVOLUTION





THANK YOU VM FOR ATTENTION!