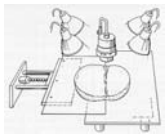
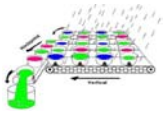
Fracture Exercise

- **Laboratory experiments**
- Digital Imaging





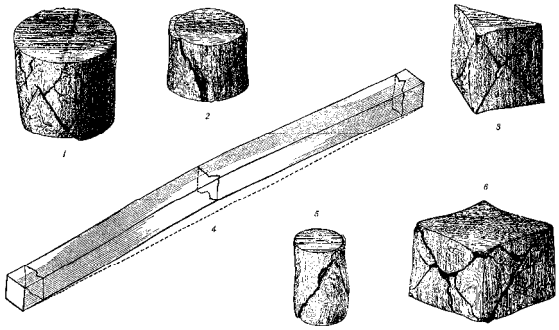


Exercise (PBL-based)

- Perform extension experiments in clay. Preparation of sample and coloring
- Choose one parameter to vary and do three experiments. Find and quantify one difference between the experiments
- Try to explain the physical reason for the change in behavior.

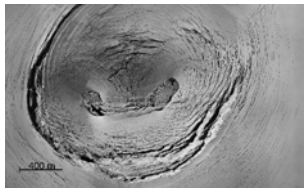
Hiserøya

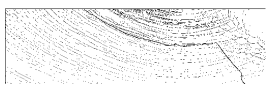
Fracture of Steel



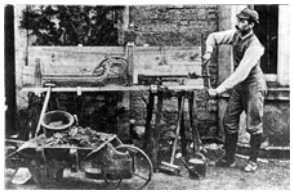
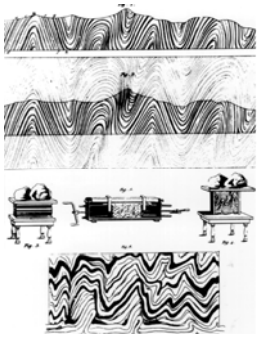
Subglacial volcanic eruption in the Vatnajokull glacier



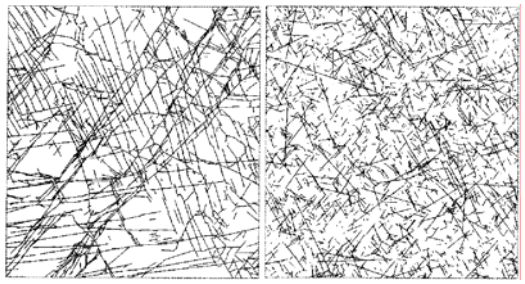





Mountain Building: Cadell 1889

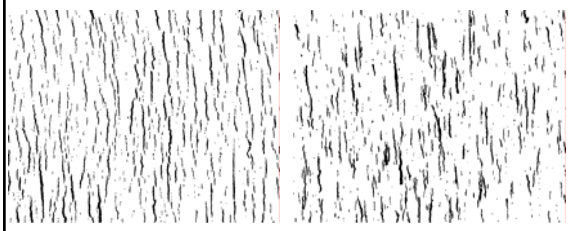
Natural vs syntetic fracture patterns



18x18m from Hornelen

Syntetic "similar" pattern

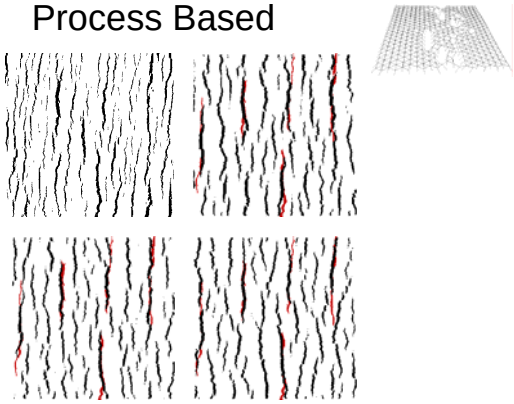
Natural vs semi-syntetic patterns



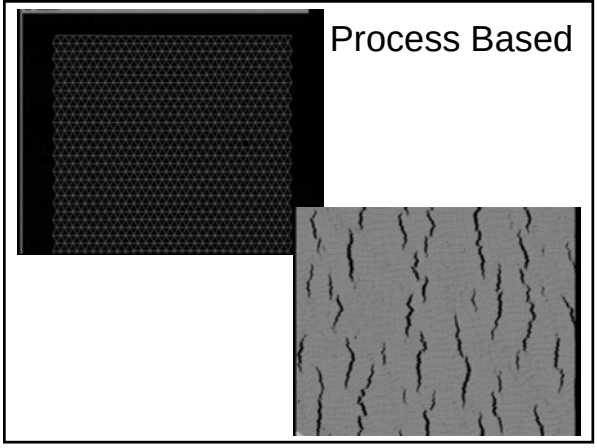
Clay fracture

Statistical layout

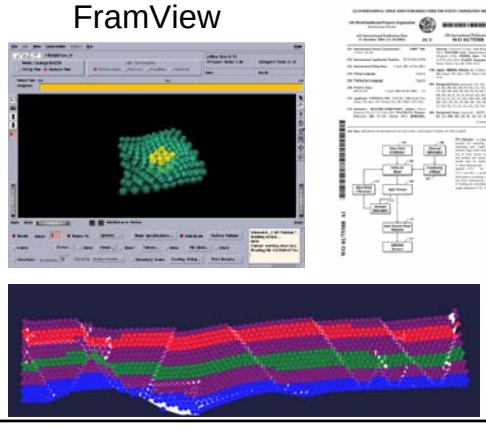
Process Based



Process Based

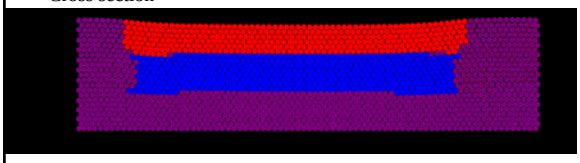


FramView



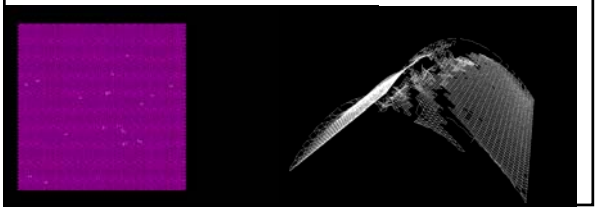
More FramView examples

Cross section

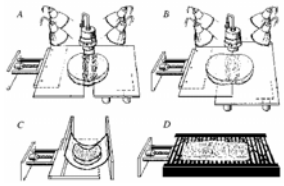


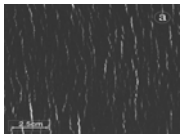
Aerial

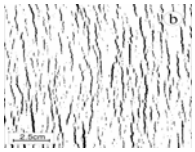
Plane from a 3D simulation



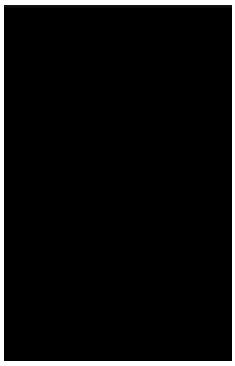
Clay Experiments (extension)

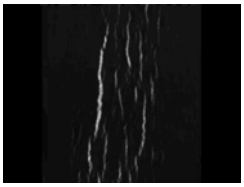


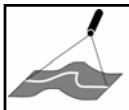


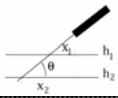


Clay Experiments

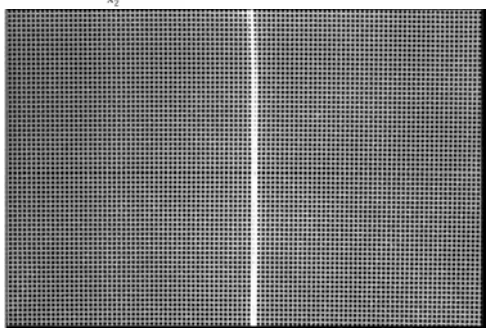




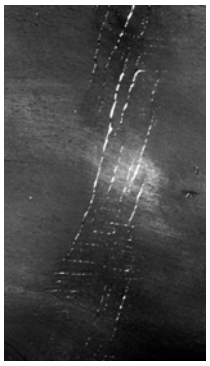


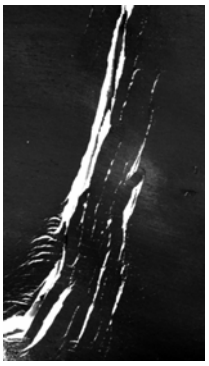


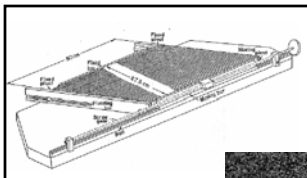
Clay Experiments



Clay Experiments (shear)







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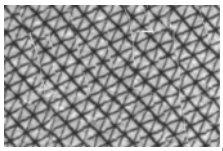
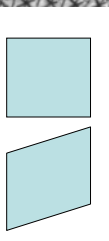
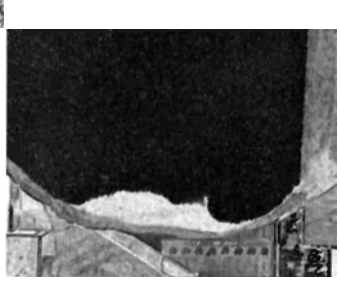


Clay Experiments





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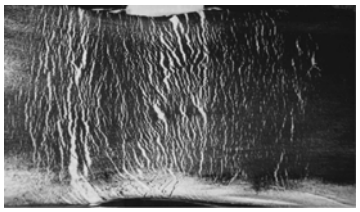
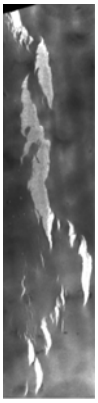
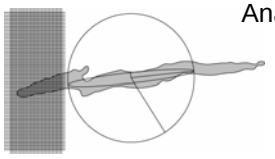
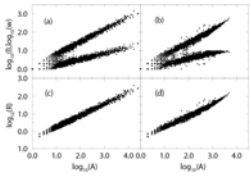


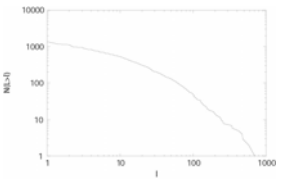


Coloring

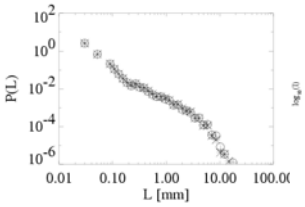
Analysis

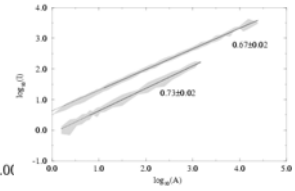




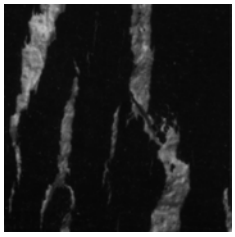


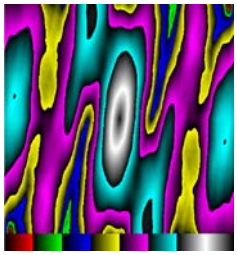
Statistical Comparison

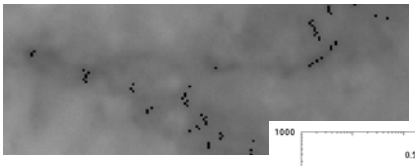




Analysis







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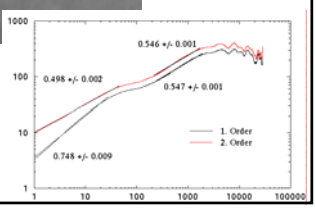
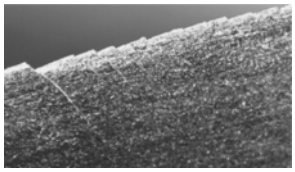


Possibilities



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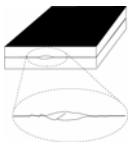

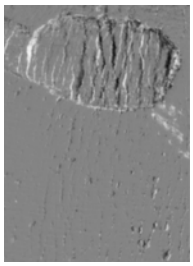

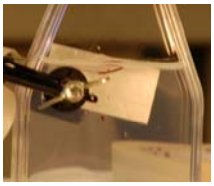

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