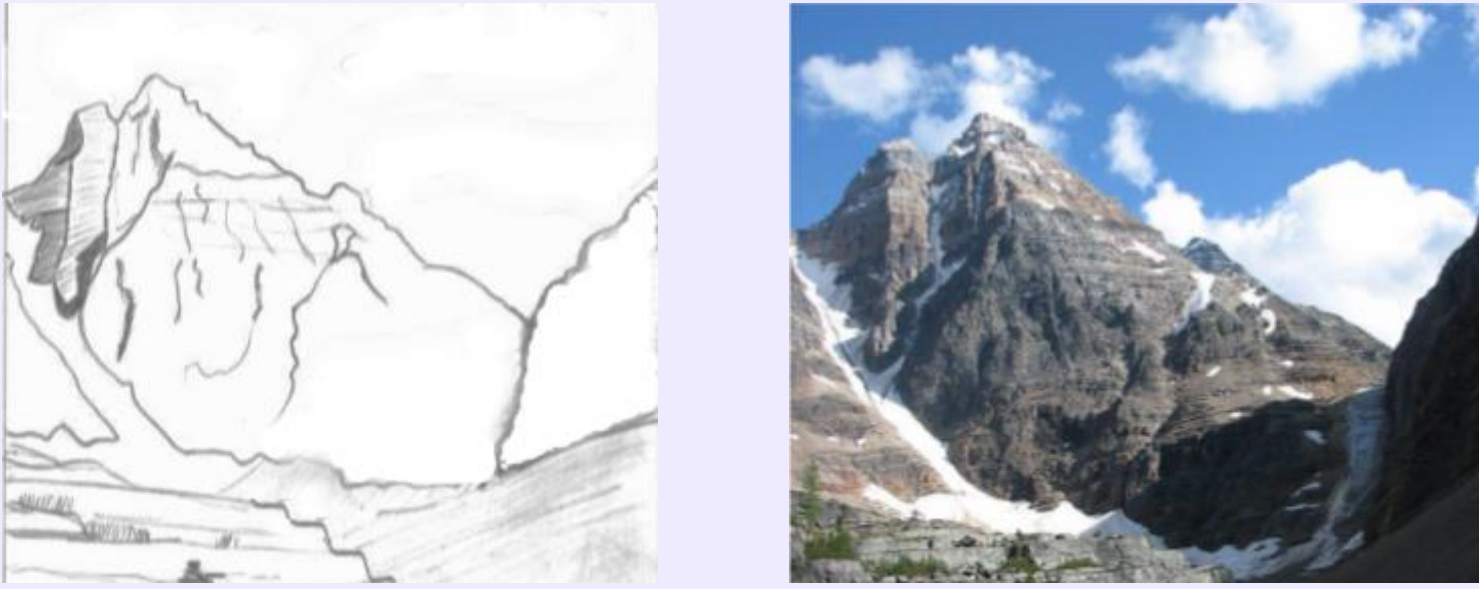# Unified Terrain Synthesis with Large-Scale Structure and Fine-Scale Detail

Maryam Ariyan – David Mould

maryam_ariyan@carleton.ca – mould@scs.carleton.ca

Graphics, Imaging, and Games Lab

OBJECTIVES
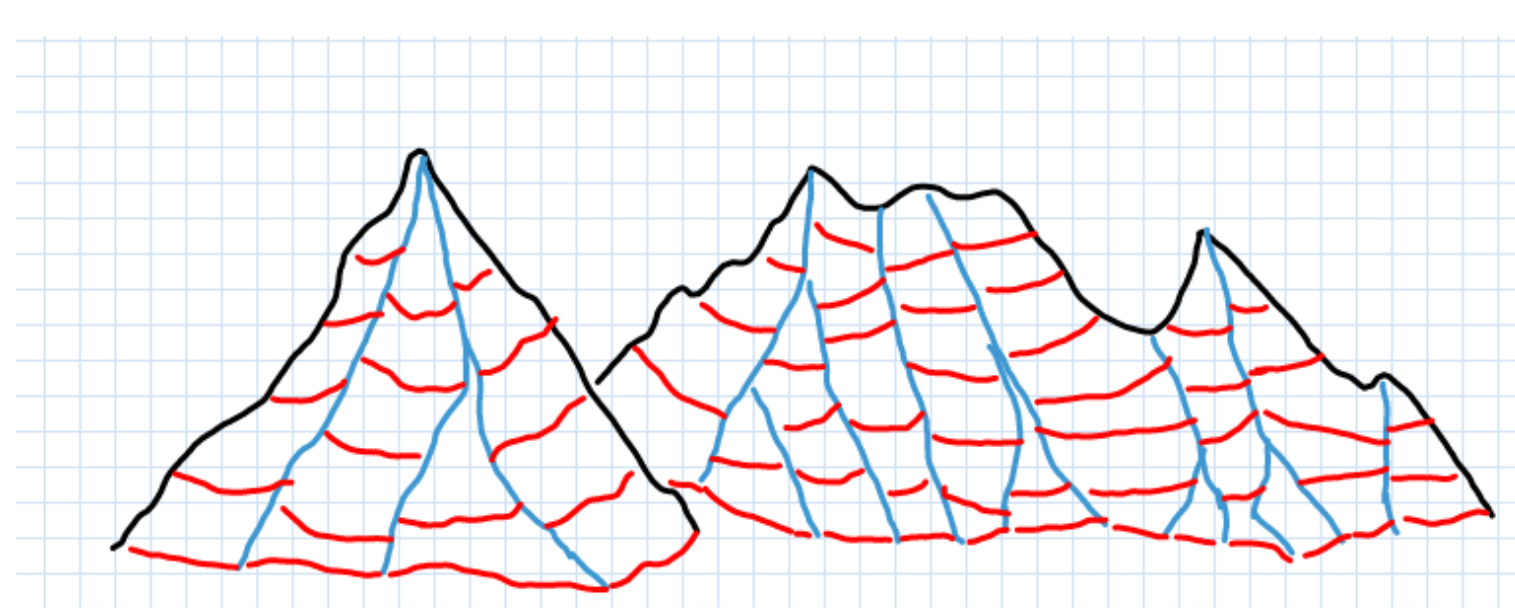

User control with silhouettes

Prominent ridges

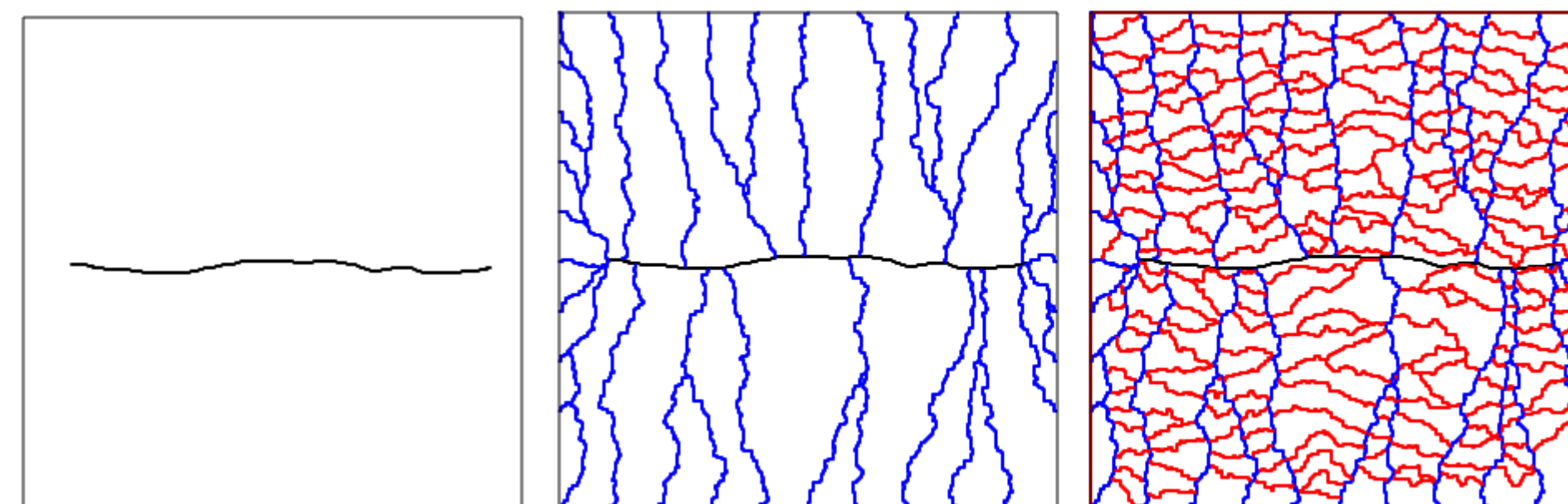Realistic rough terrains

SOLUTION PLAN

1. Ridges form curve networks
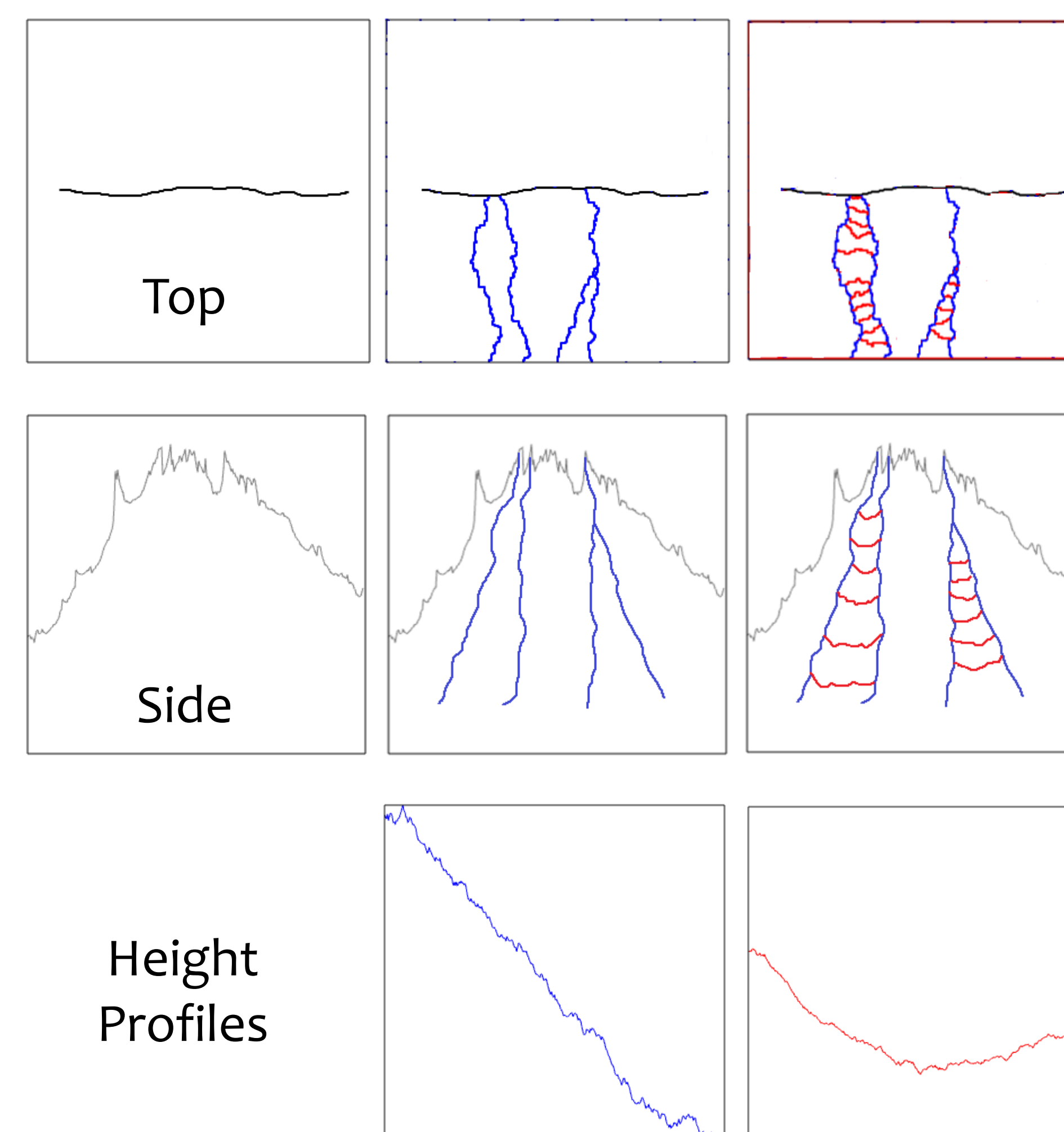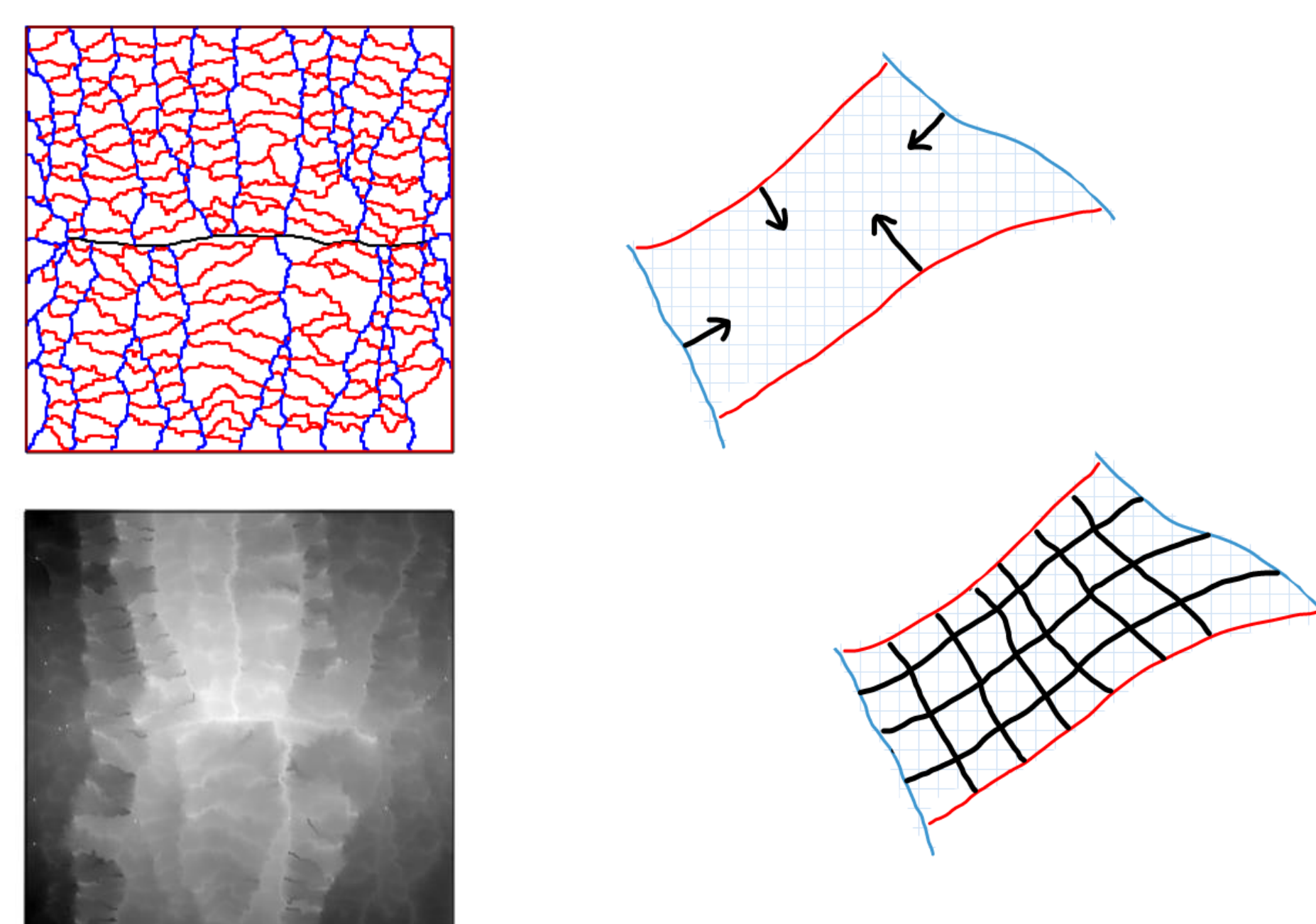2. Rough terrain patches attach to bounding ridges

WALKTHROUGH

[A] Partition space with ridges

[B] Define ridge profiles

Top

Side

Height Profiles

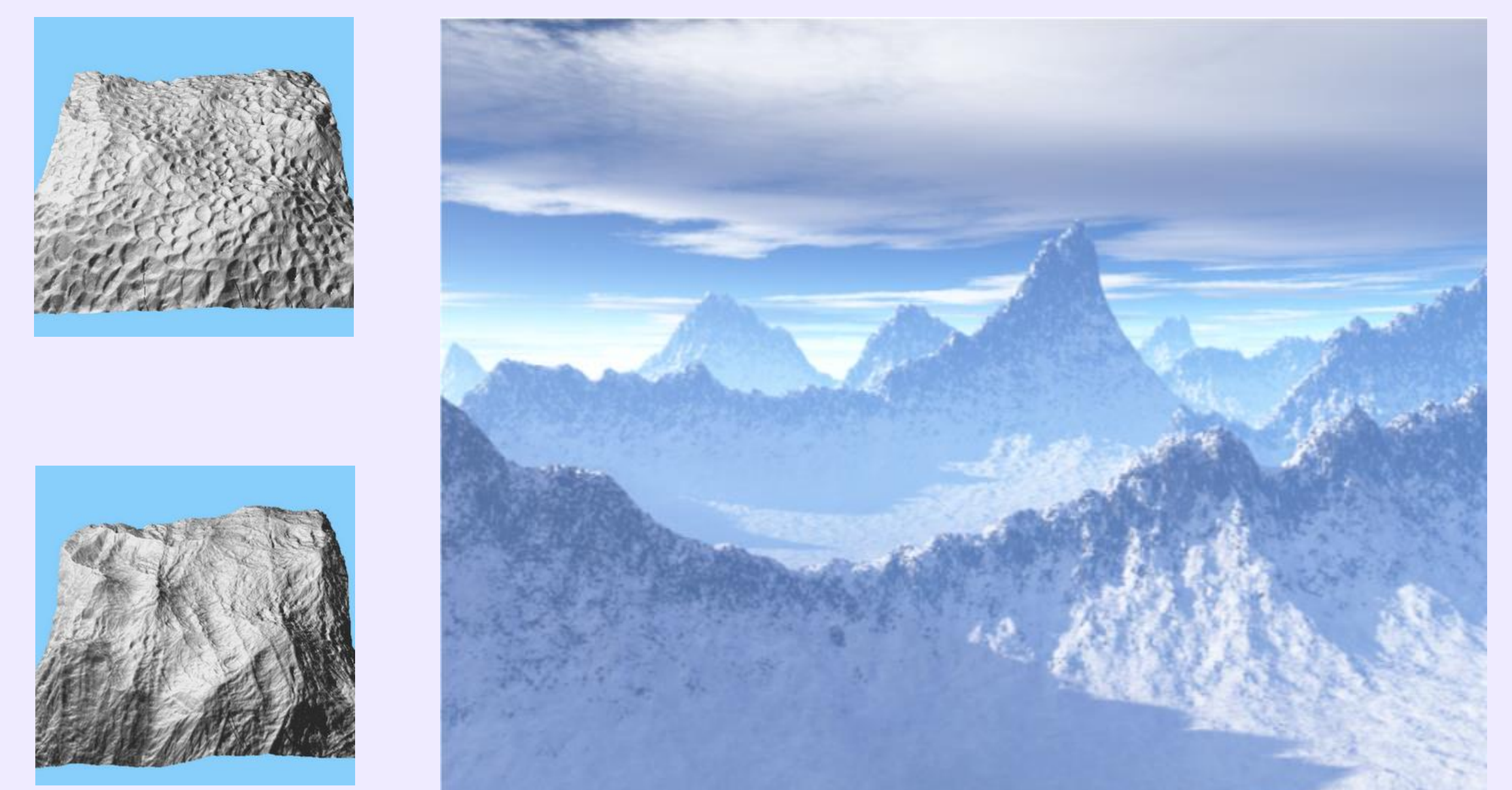[C] Propagate heights to patches

USE OF PATH PLANNING

Path planning gives us rough terrains and irregular networks
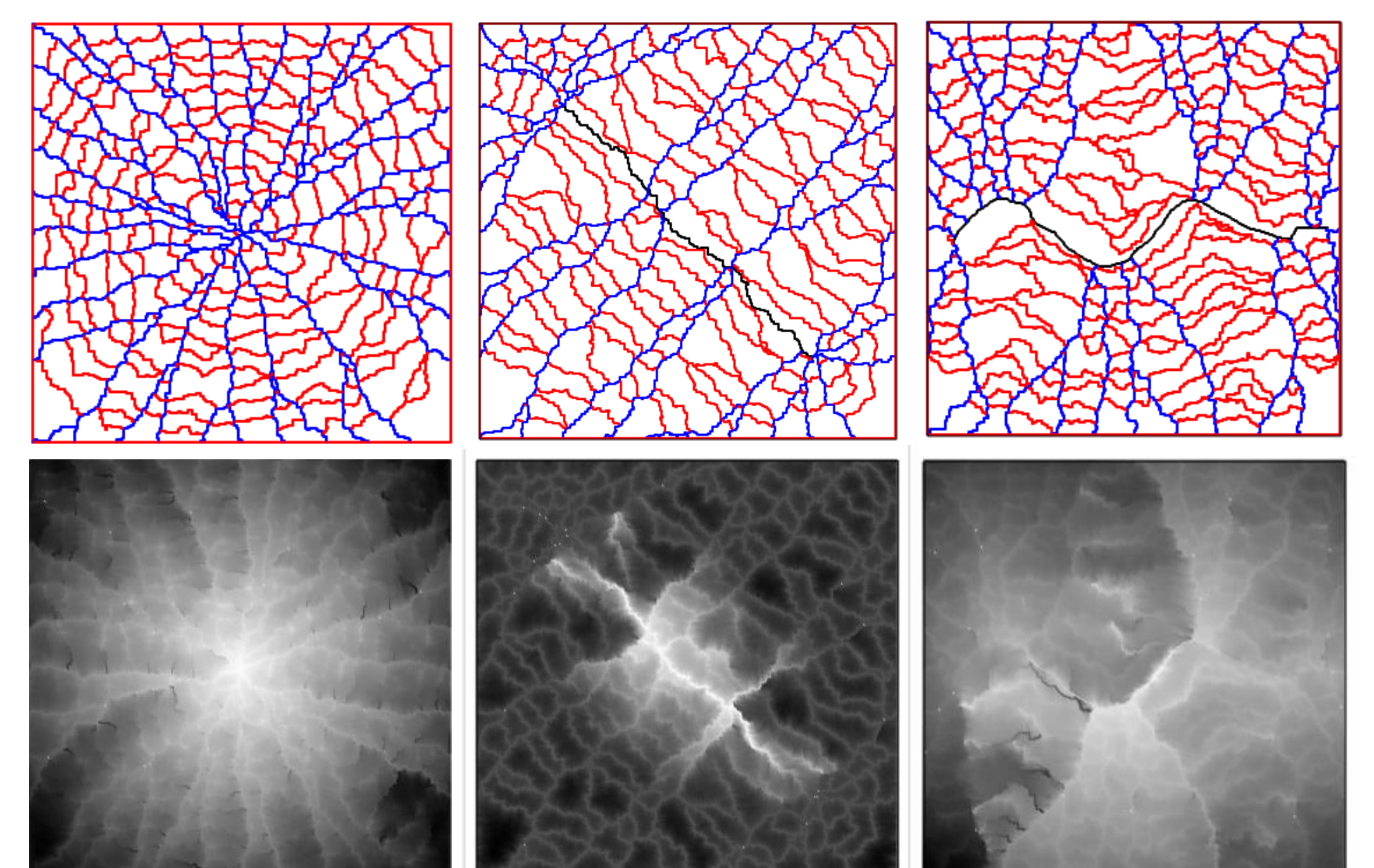

[Xu and Mould, 2012]

[Rusnell et al. 2009]

RESULTS

FUTURE WORK

1. Experiment with different profiles
2. Add small scale structure within patches
3. User control over large-scale structure away from main ridge

Graphisme, animation et nouveaux médias

grand
Graphics, Animation and New Media