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Faking reality for generating panorama maps

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► **To cite this version:**

Romain Vergne, Nolan Mestres, Arthur Novat, Joëlle Thollot, Yann Boulanger. Faking reality for generating panorama maps. 13th Mountain Cartography Workshop, Raphal Jonca, Apr 2024, Zakopane, Poland. pp.1-25. hal-04589342

HAL Id: hal-04589342

<https://inria.hal.science/hal-04589342v1>

Submitted on 27 May 2024

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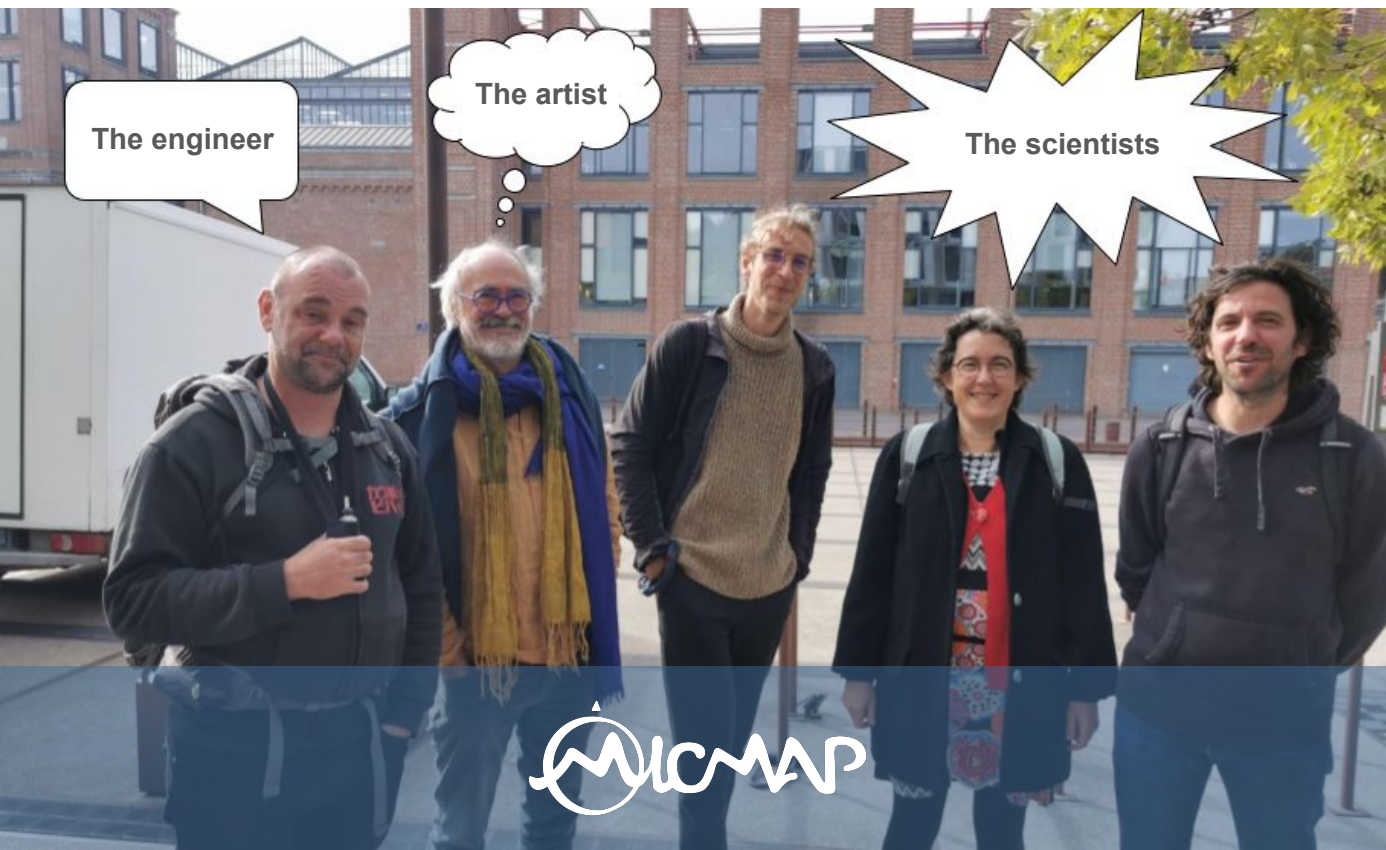
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UGA
Université
Grenoble Alpes

GRENOBLE
INP
UGA



7 Laux ski resort fatmap



7 Laux ski resort fatmap



hidden tracks

hard to read

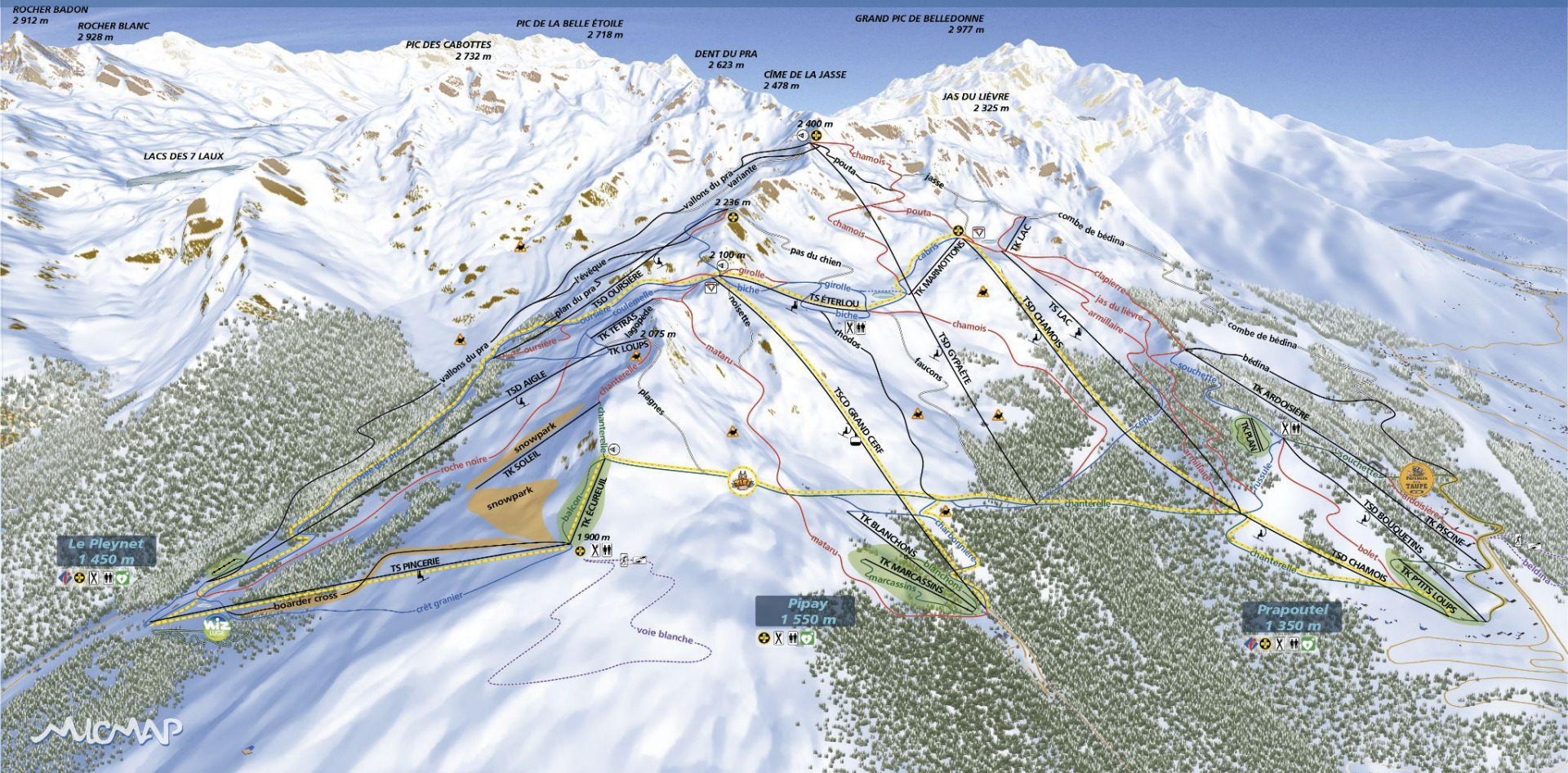
fixed shading

undesirable

too dark

7 Laux ski resort

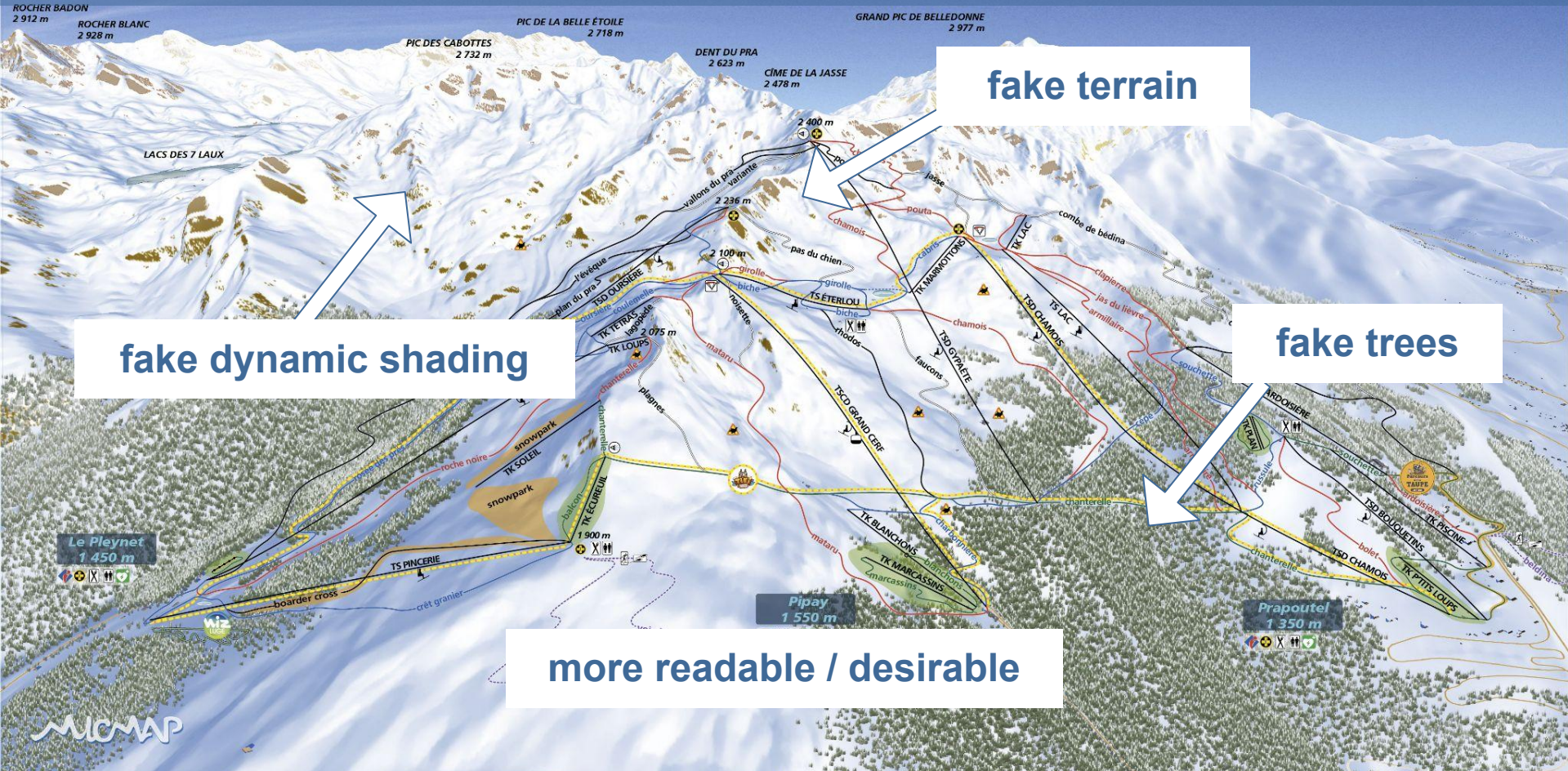
our semi-automatic 3D map - <https://www.les7laux.com>



Le Pleyinet
1 450 m

Pipay
1 550 m

Prapoutel
1 350 m



fake terrain

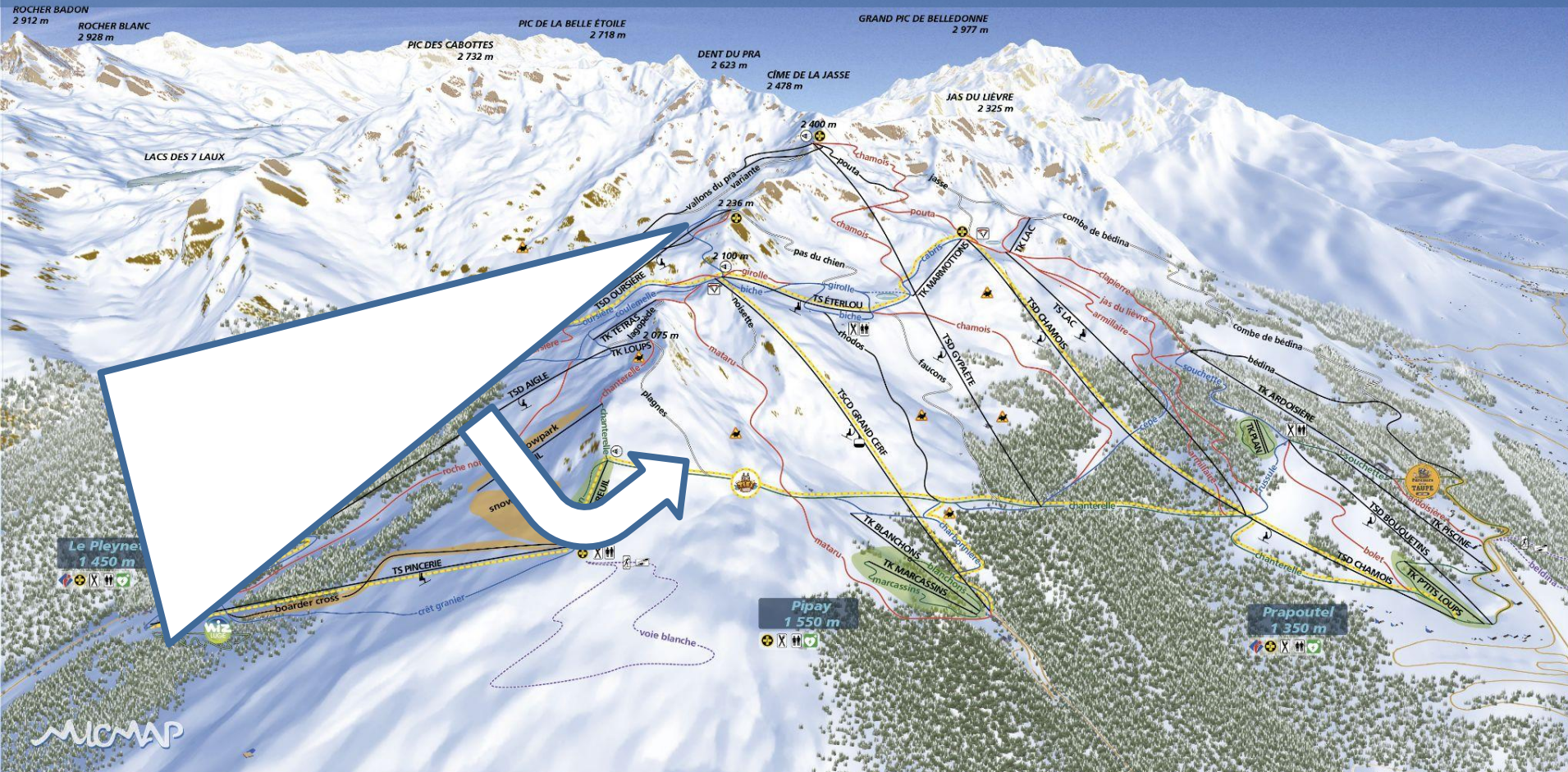
fake dynamic shading

fake trees

more readable / desirable

Terrain transformations

real-time rotations, translations, scaling



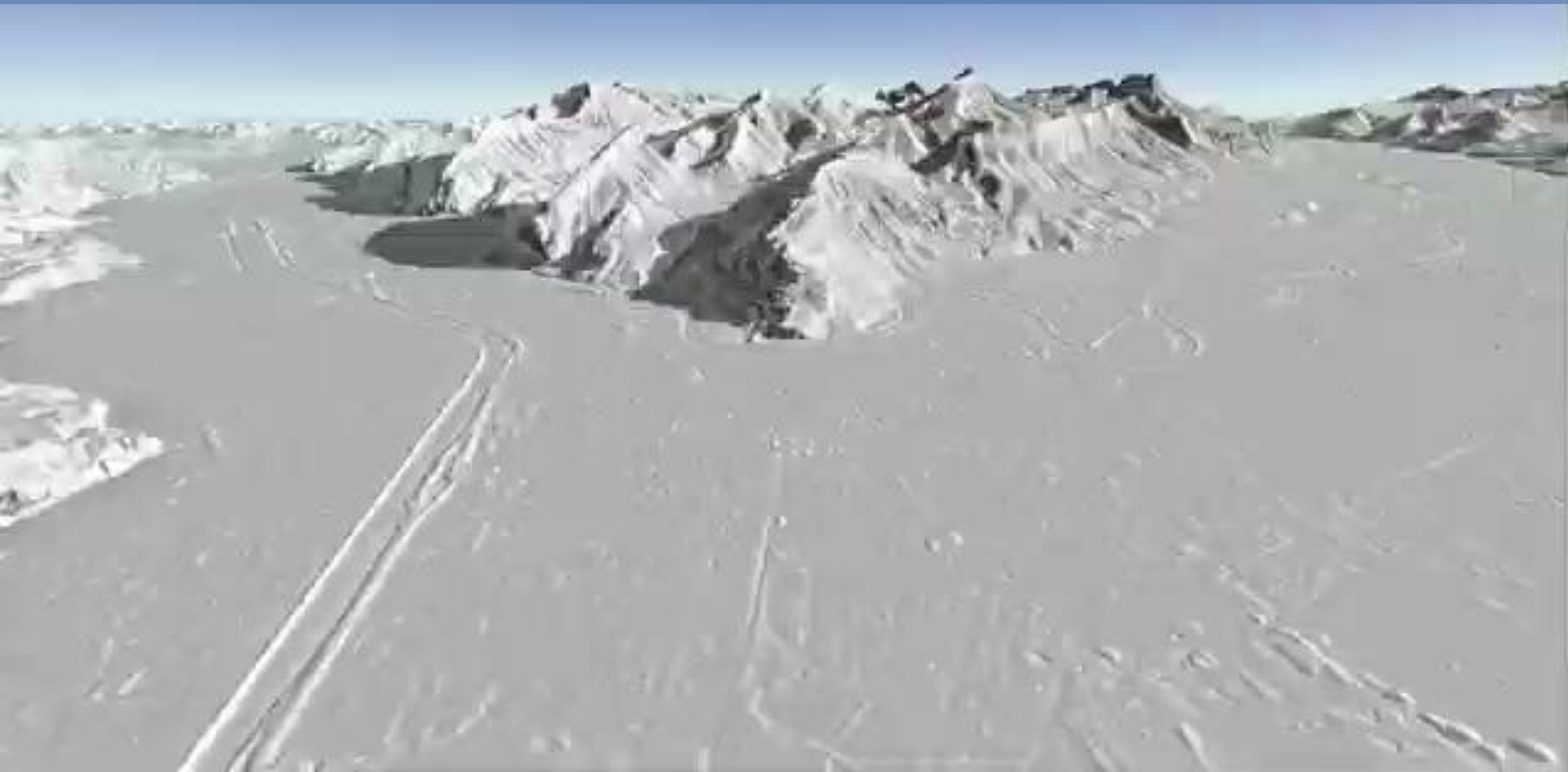
Terrain transformations

real-time rotations, translations, scaling

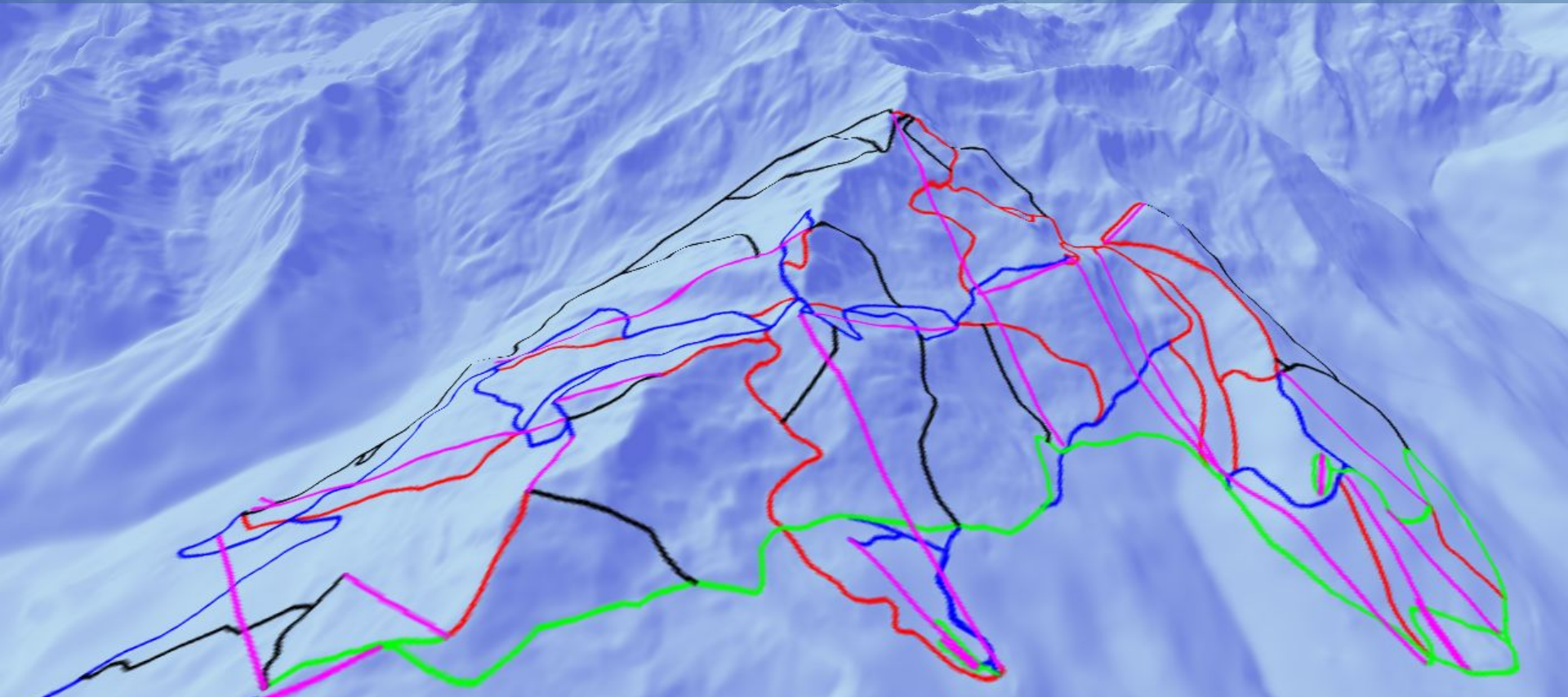


Terrain transformations

real-time rotations, translations, scaling

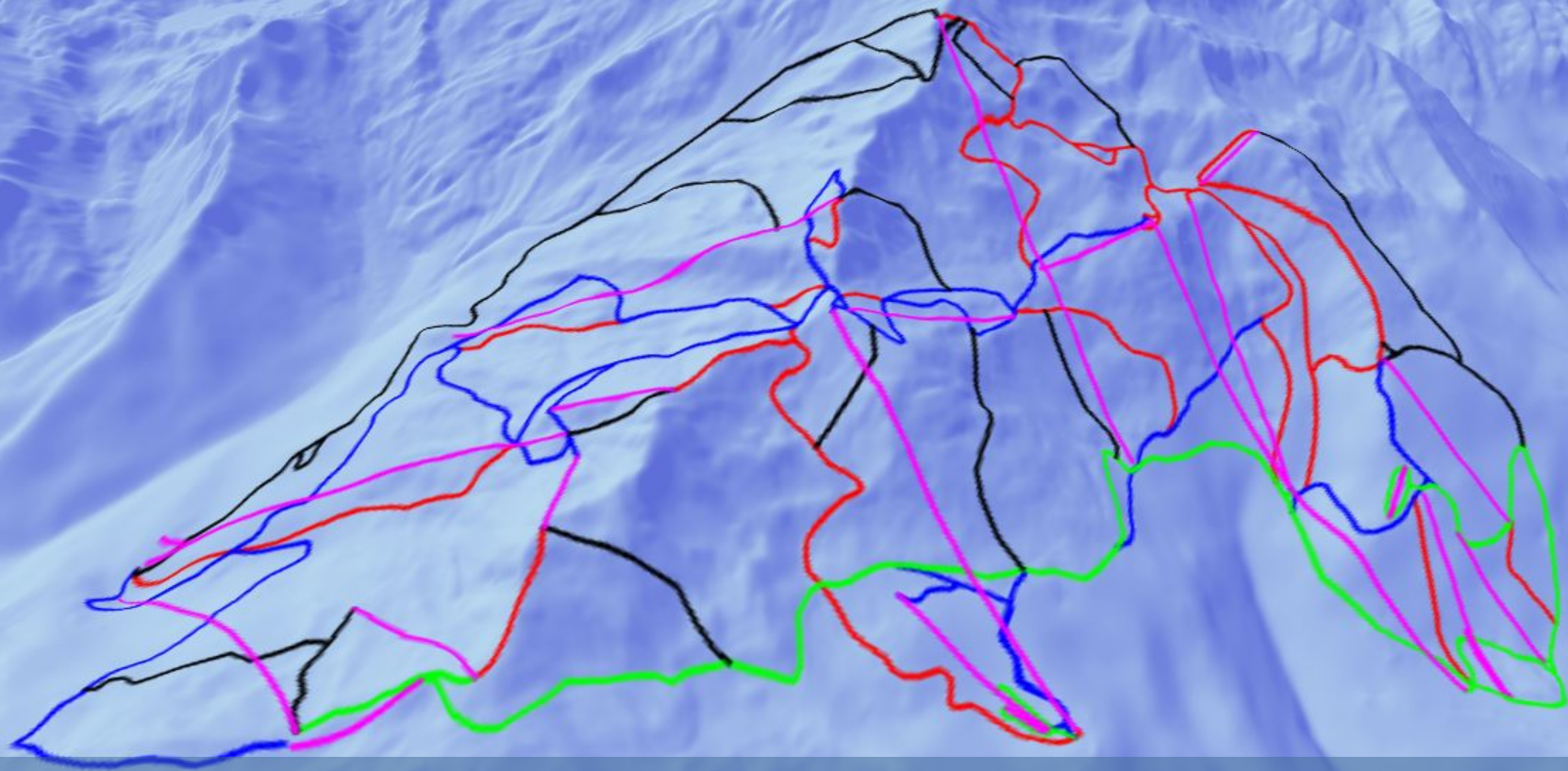


Terrain transformations
global optimization

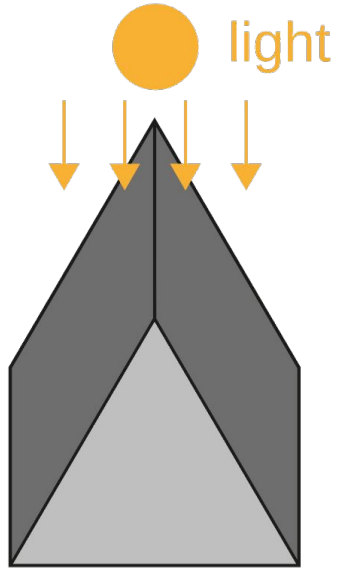


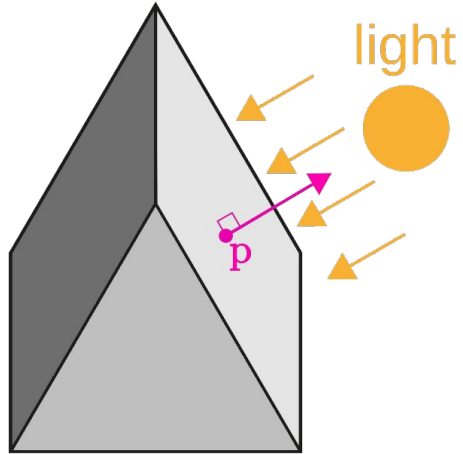
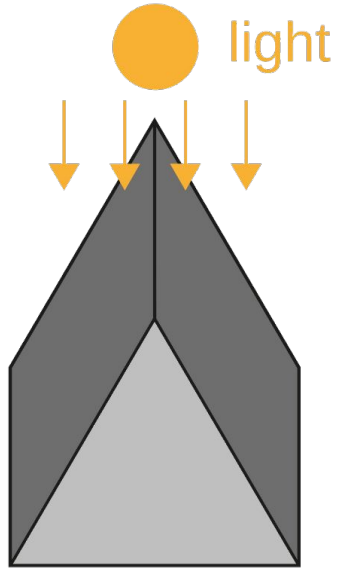
original

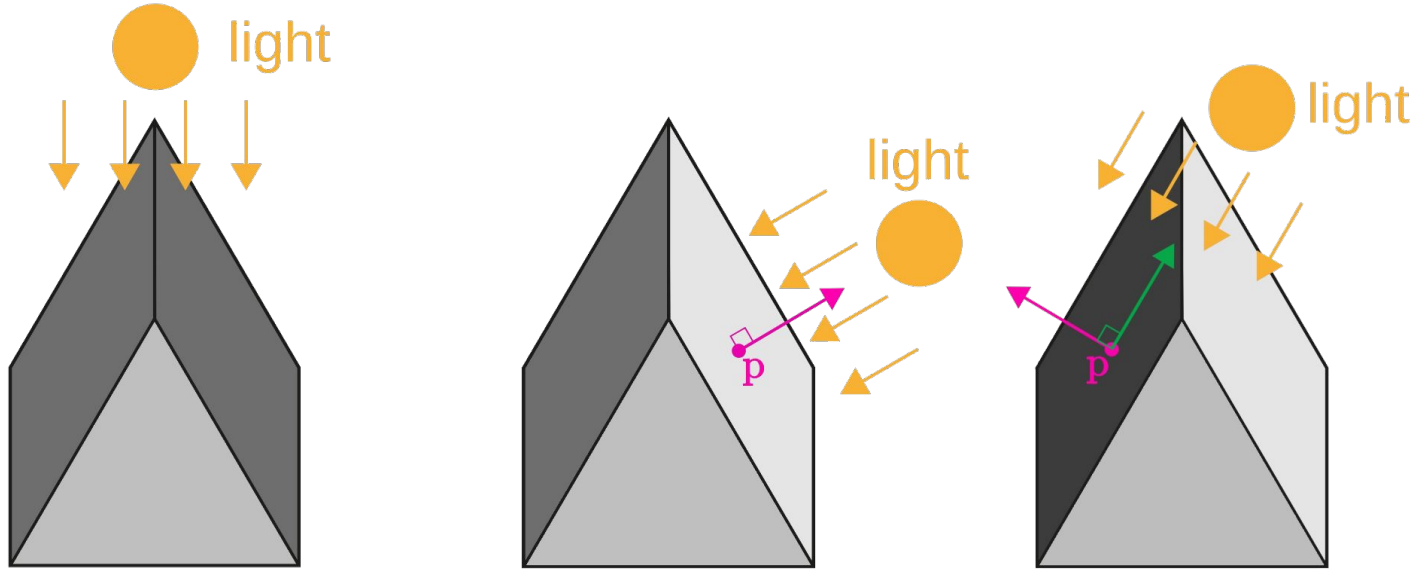
Terrain transformations global optimization



optimized







Local Light Alignment shading



Local Light Alignment shading



Local Light Alignment

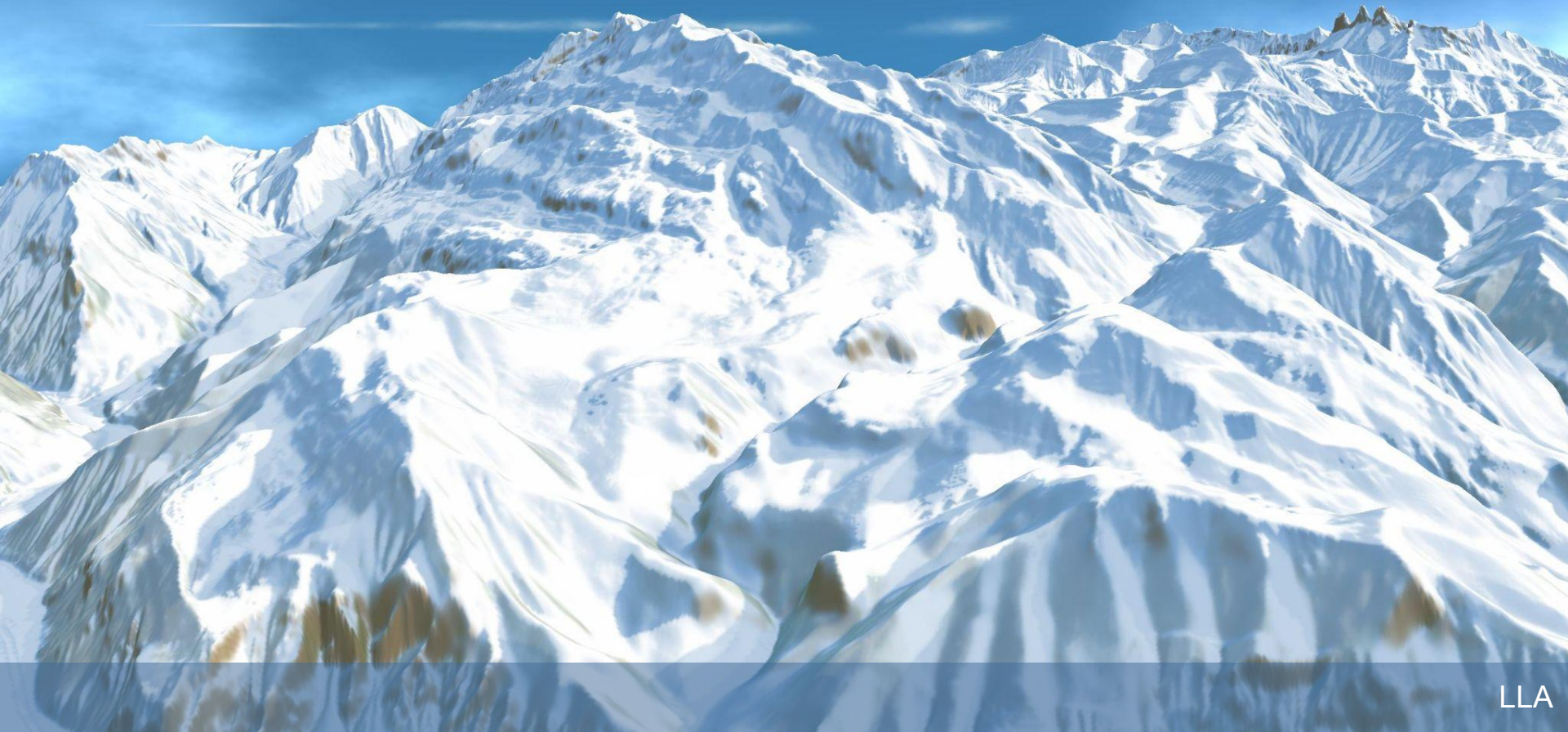
shading & cast shadows



original

Local Light Alignment

shading & cast shadows



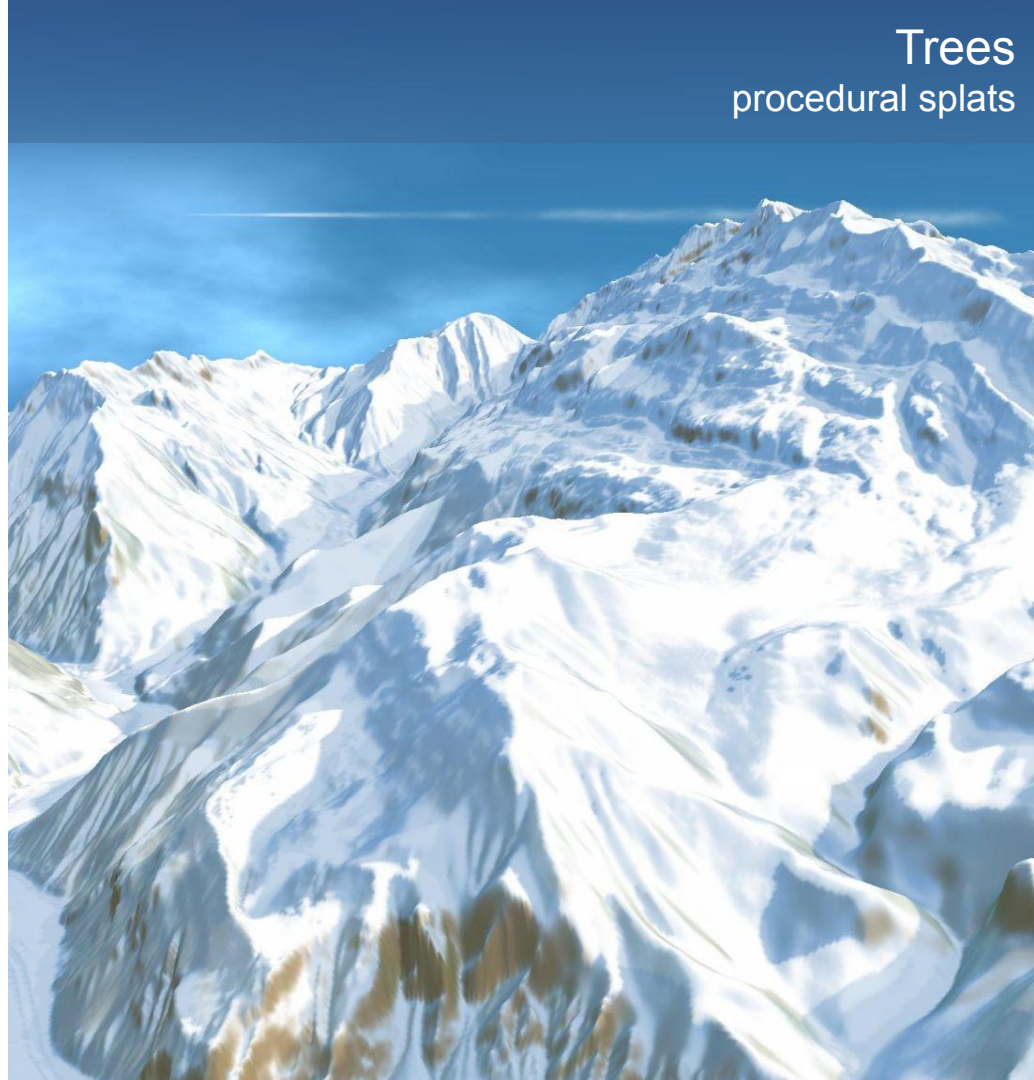
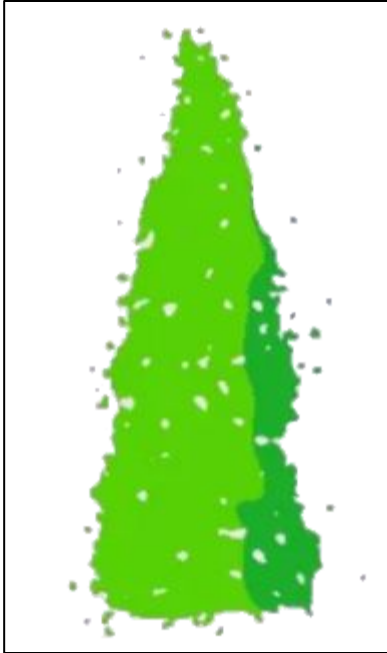
Local Light Alignment shading & cast shadows

▼ MicMap

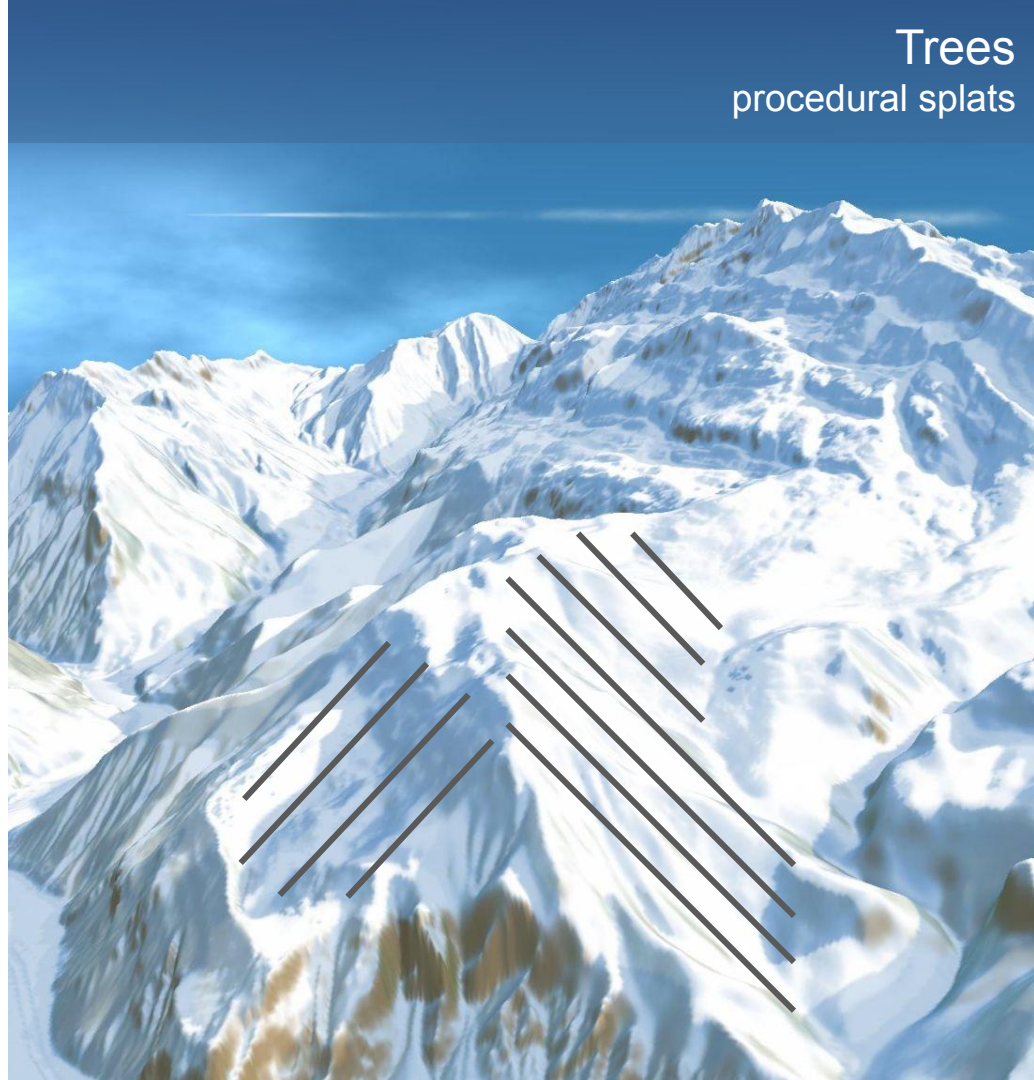
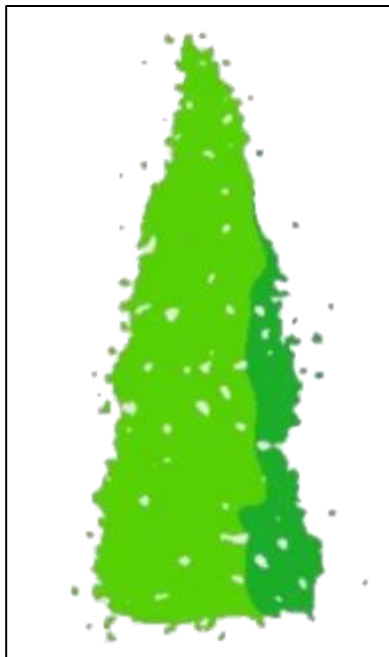
R: 0	G:117	B:255	snow_col
R:148	G:105	B: 0	rocks_col
0.000			Snow altit
0.000			Snow flat
0.000			Snow vertic



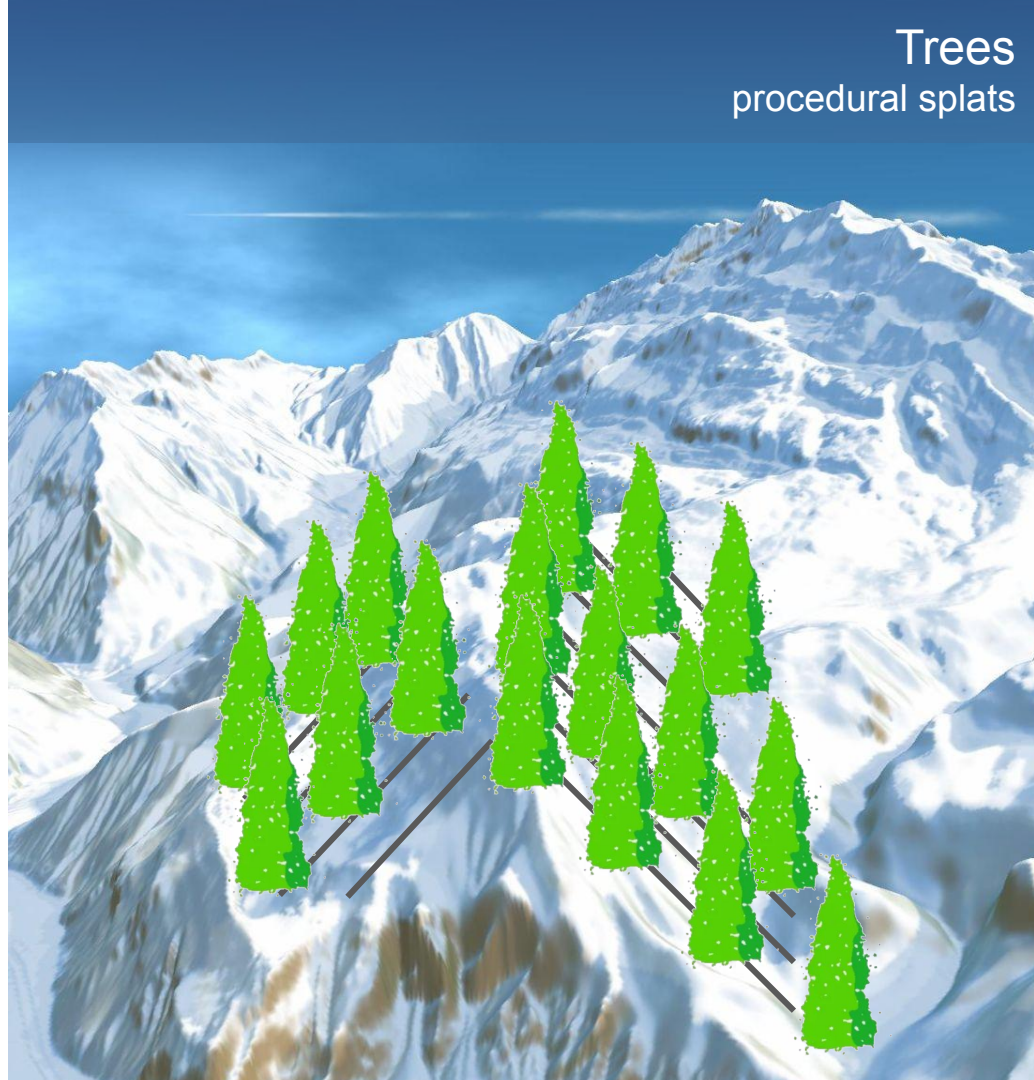
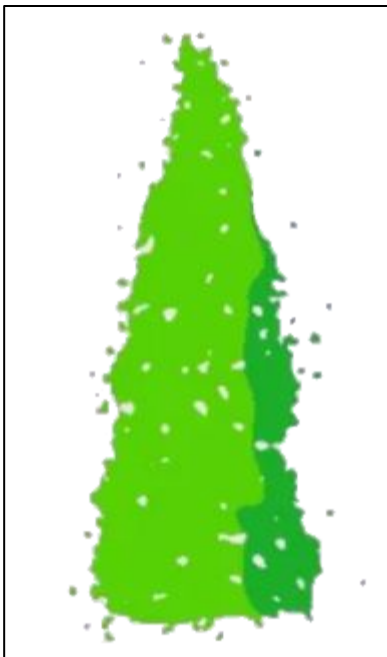
Trees procedural splats



Trees procedural splats

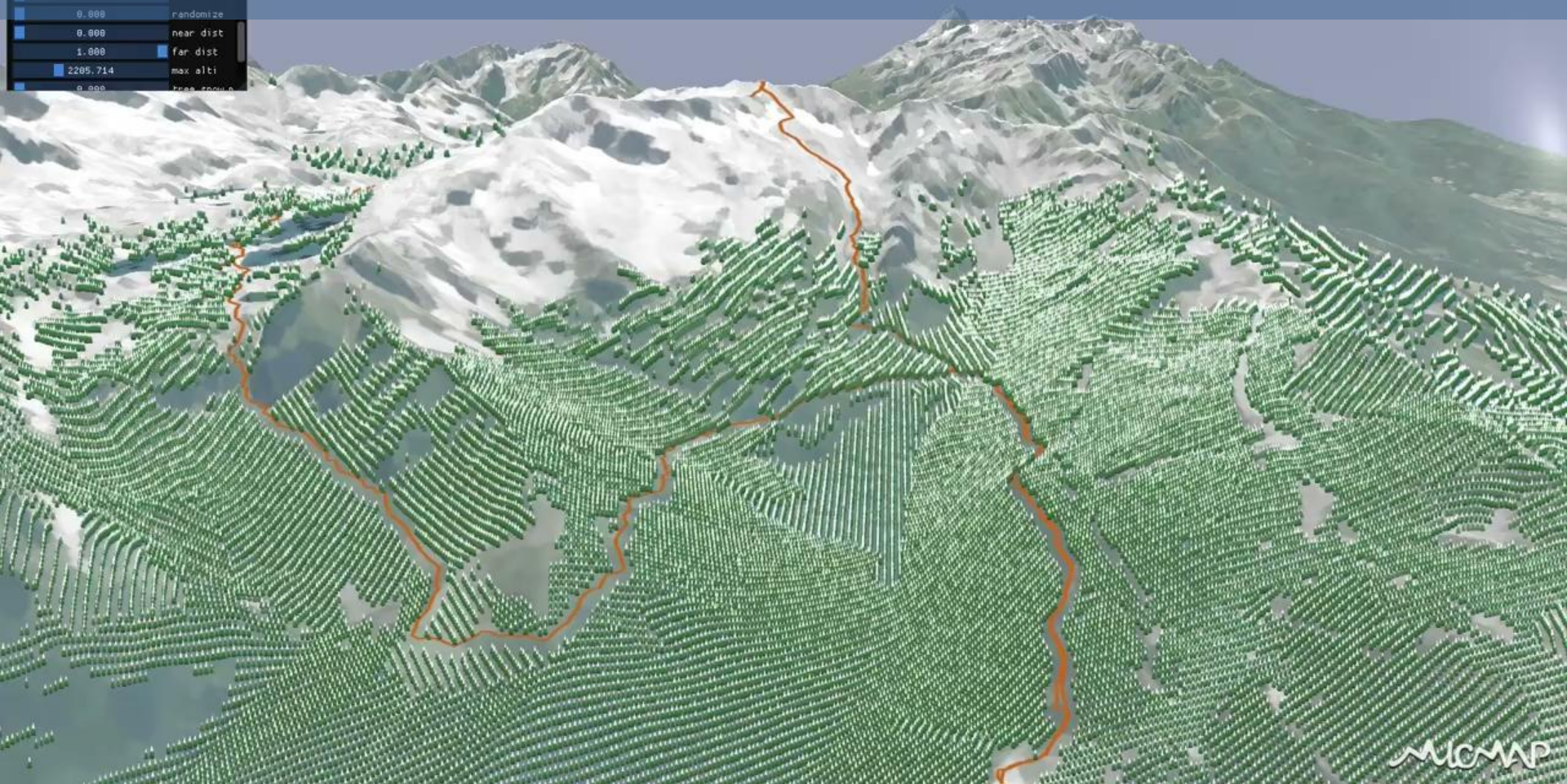


Trees procedural splats

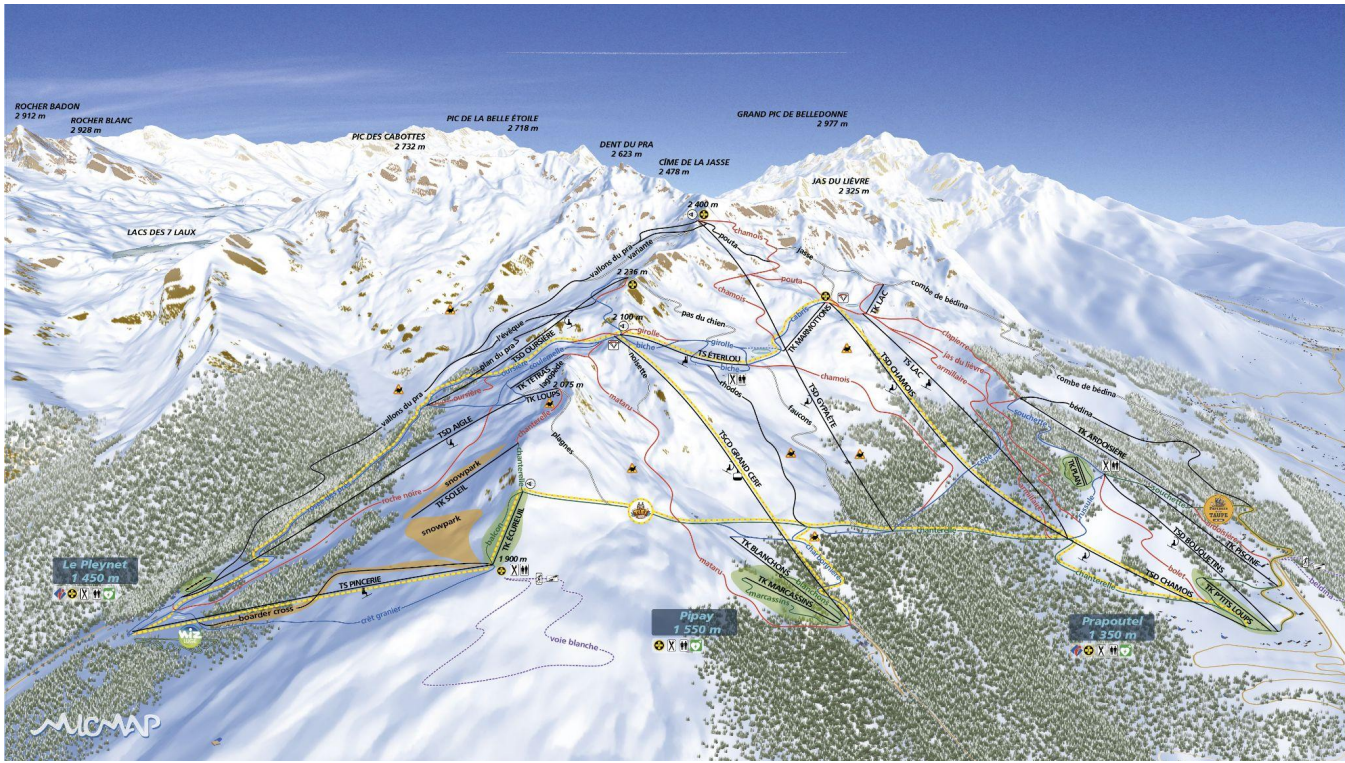


Trees procedural splats

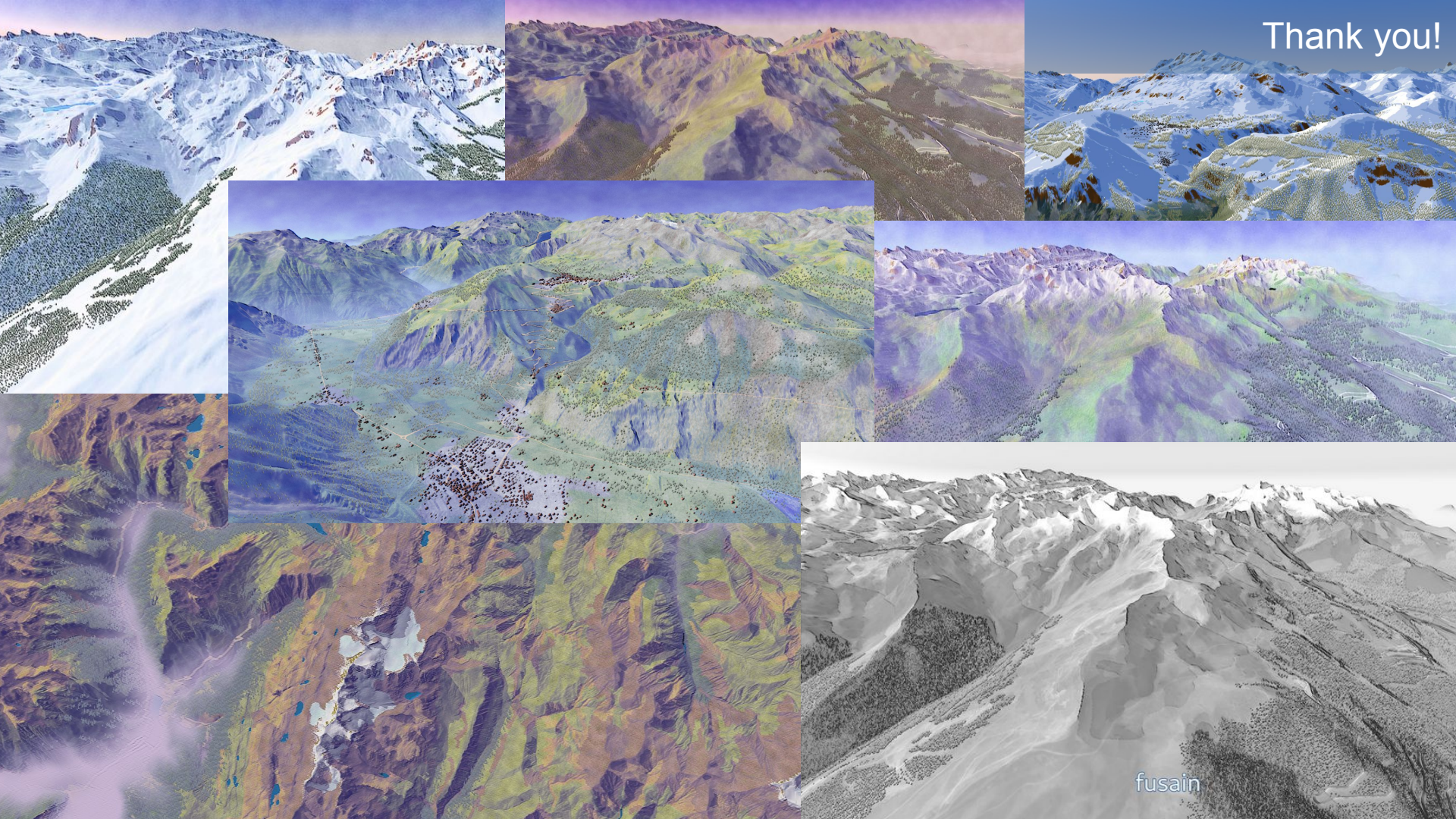
▼ MicMap	423	radius
	0.166	depth ratio
	0	decimate pr
	0	decimate li
	0.000	randomize
	0.000	near dist
	1.000	far dist
	2205.714	max alti
	0.000	tree radius



- roads, tracks
- buildings
- toponyms
- rocks and trees
- unified style(s)



Thank you!



fusain

