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Faking reality for generating panorama maps

Romain Vergne, Nolan Mestres, Arthur Novat, Joëlle Thollot, Yann Boulanger

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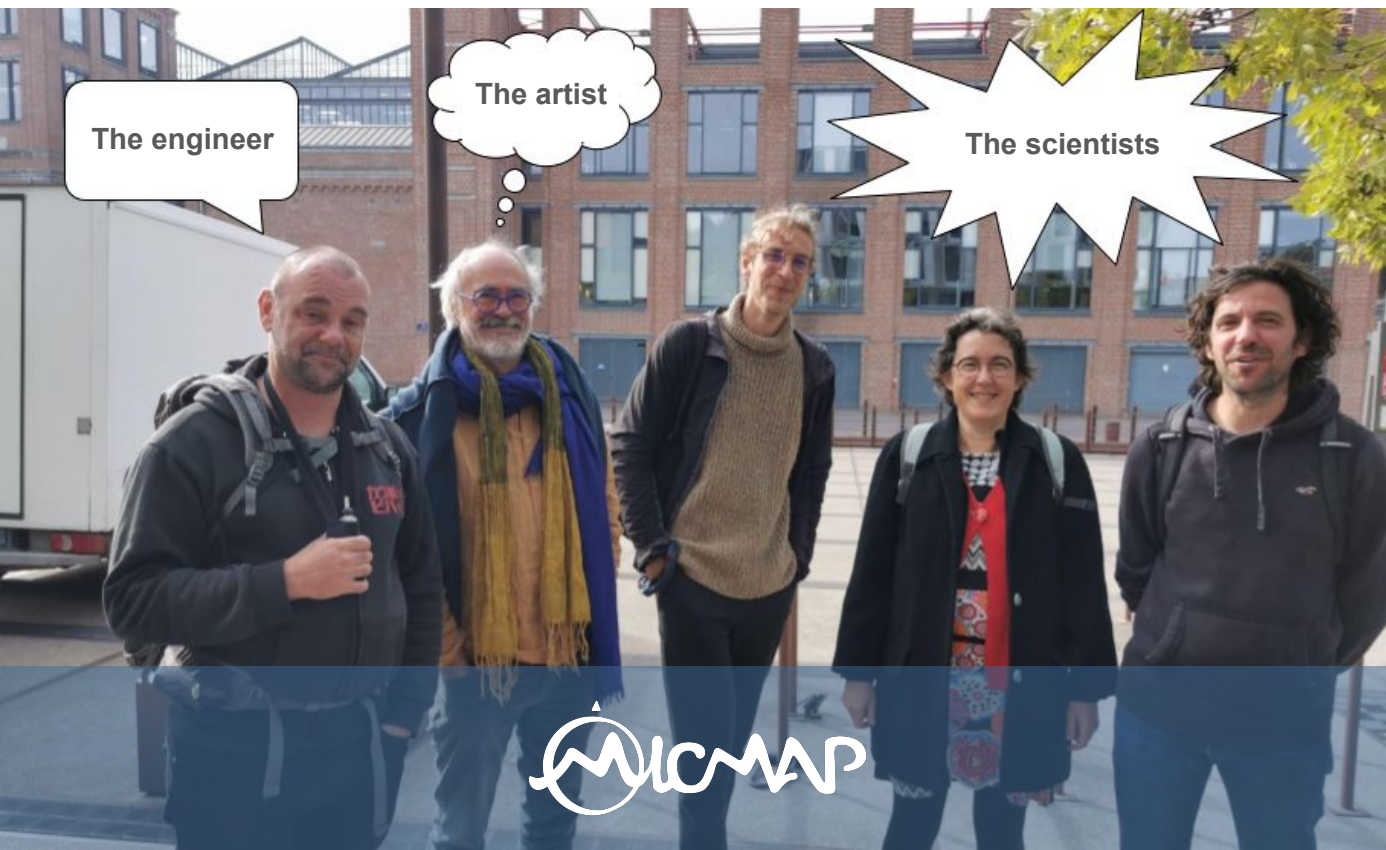
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Inria



UGA
Université
Grenoble Alpes

GRENOBLE
INP
UGA



7 Laux ski resort fatmap



7 Laux ski resort fatmap



hidden tracks

hard to read

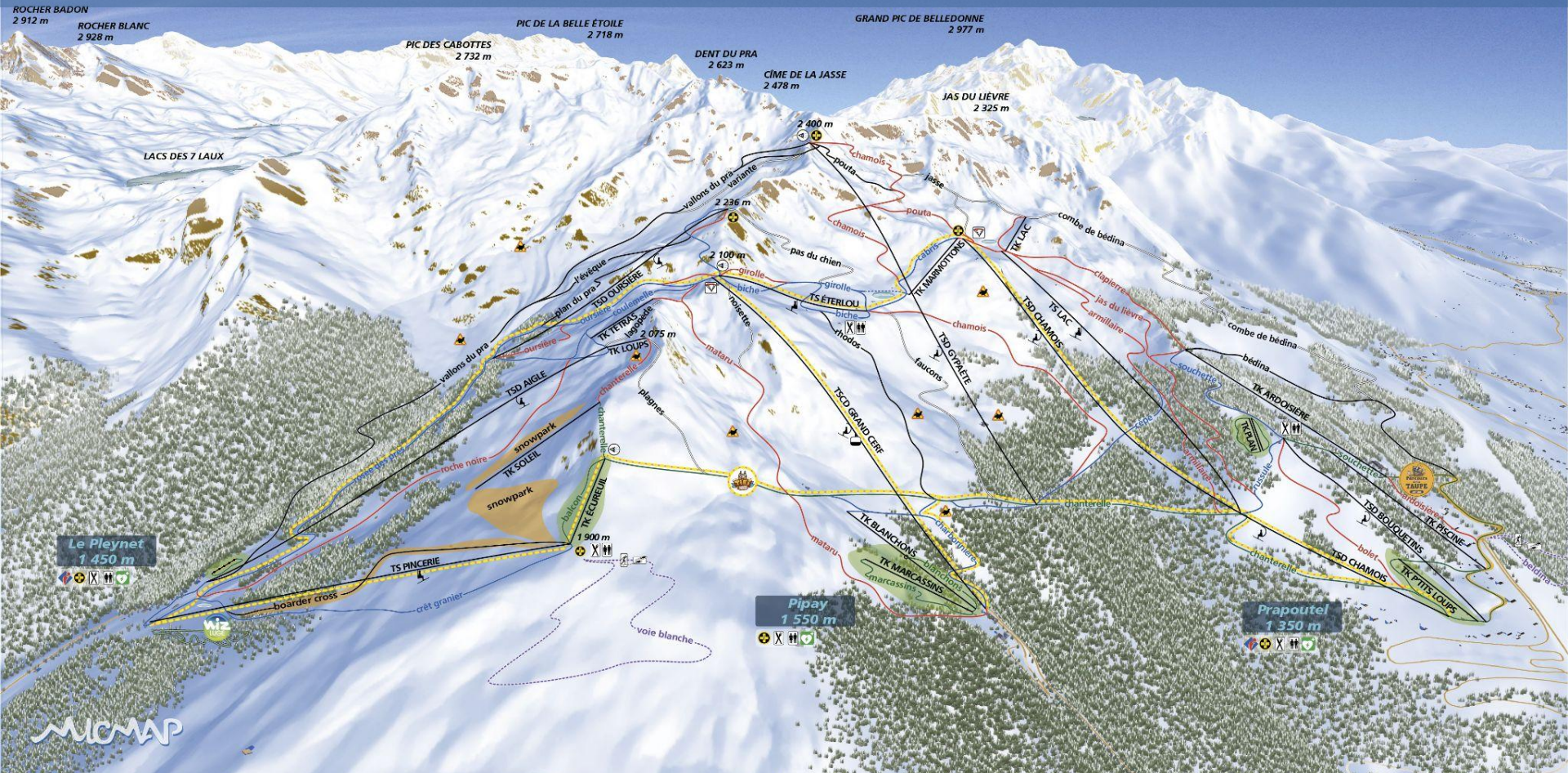
fixed shading

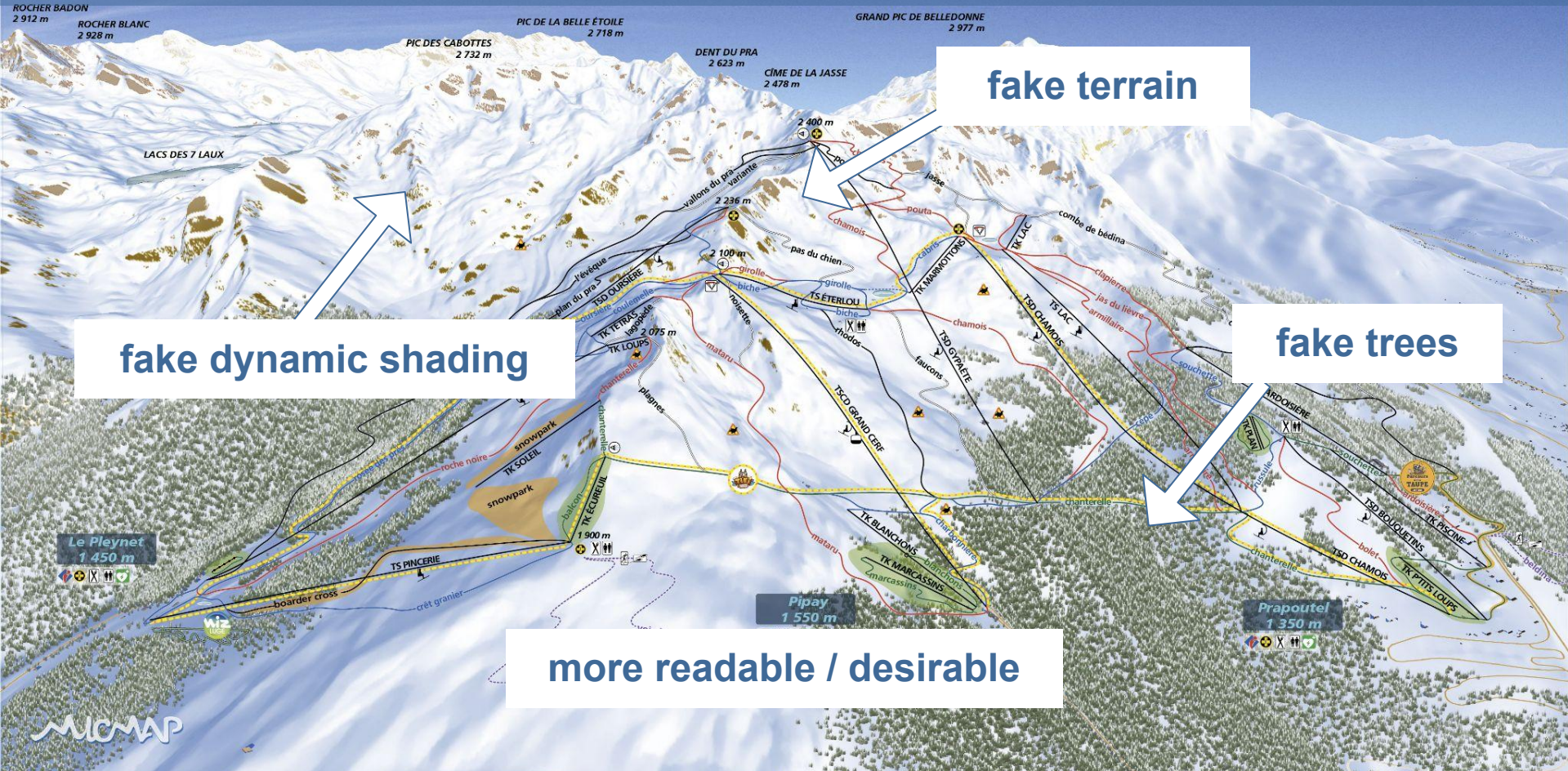
undesirable

too dark

7 Laux ski resort

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





fake terrain

fake dynamic shading

fake trees

more readable / desirable

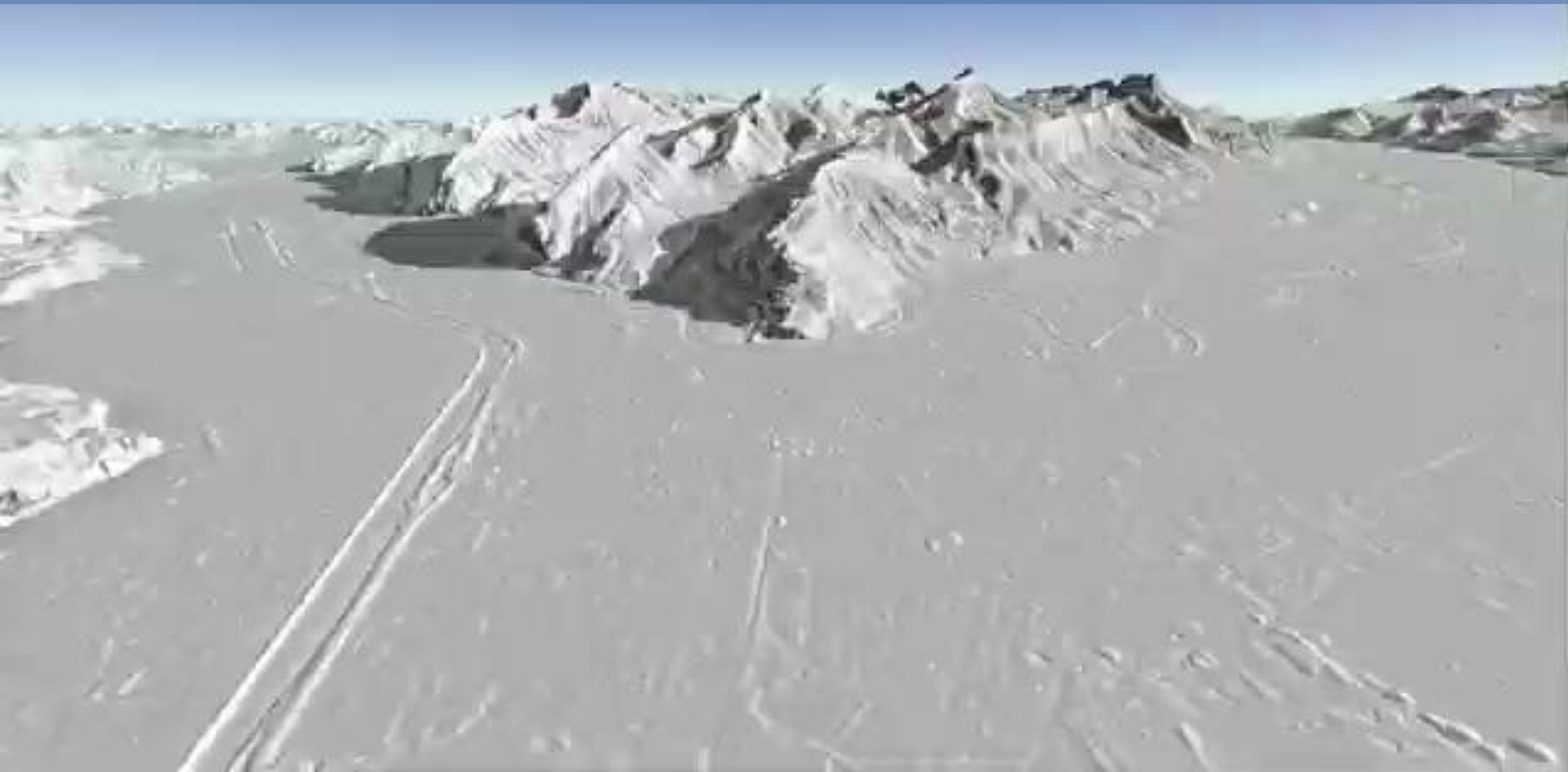
Terrain transformations

real-time rotations, translations, scaling

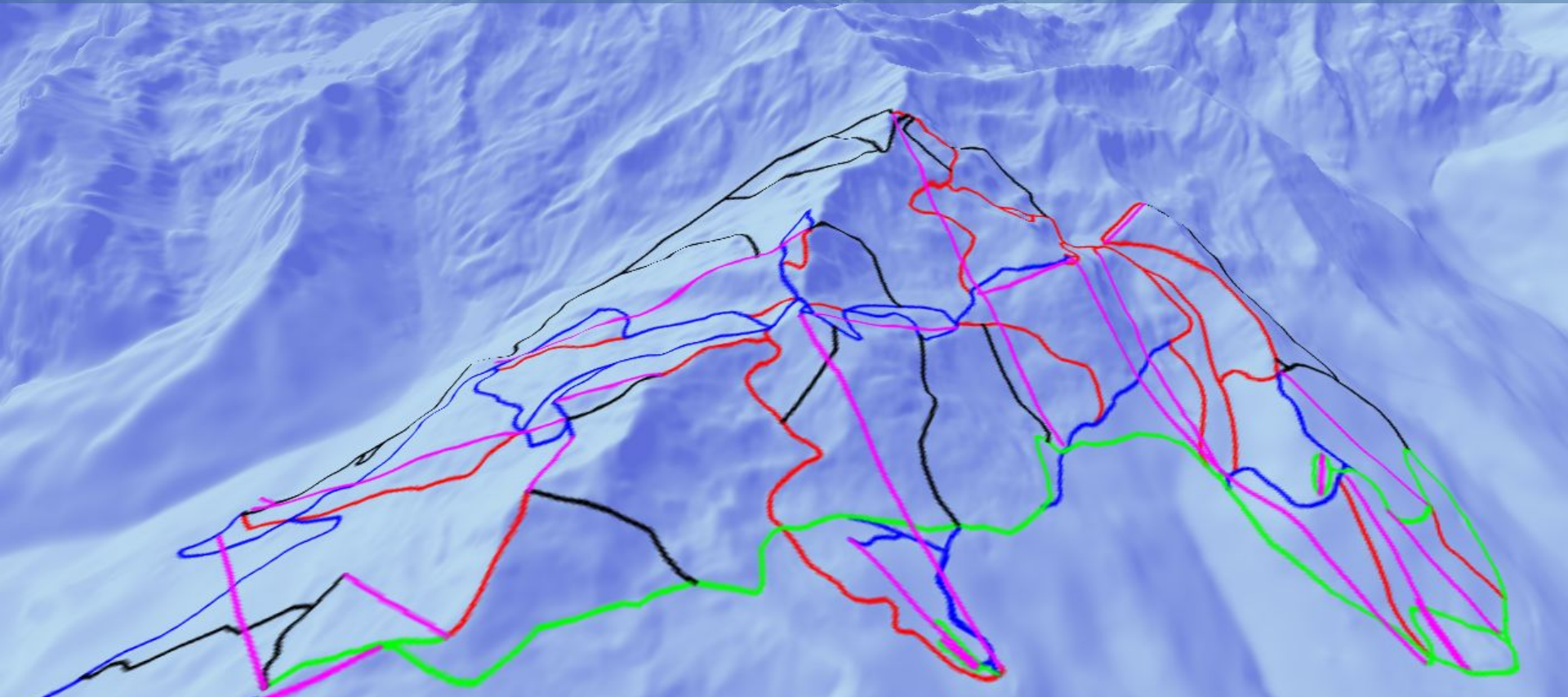


Terrain transformations

real-time rotations, translations, scaling

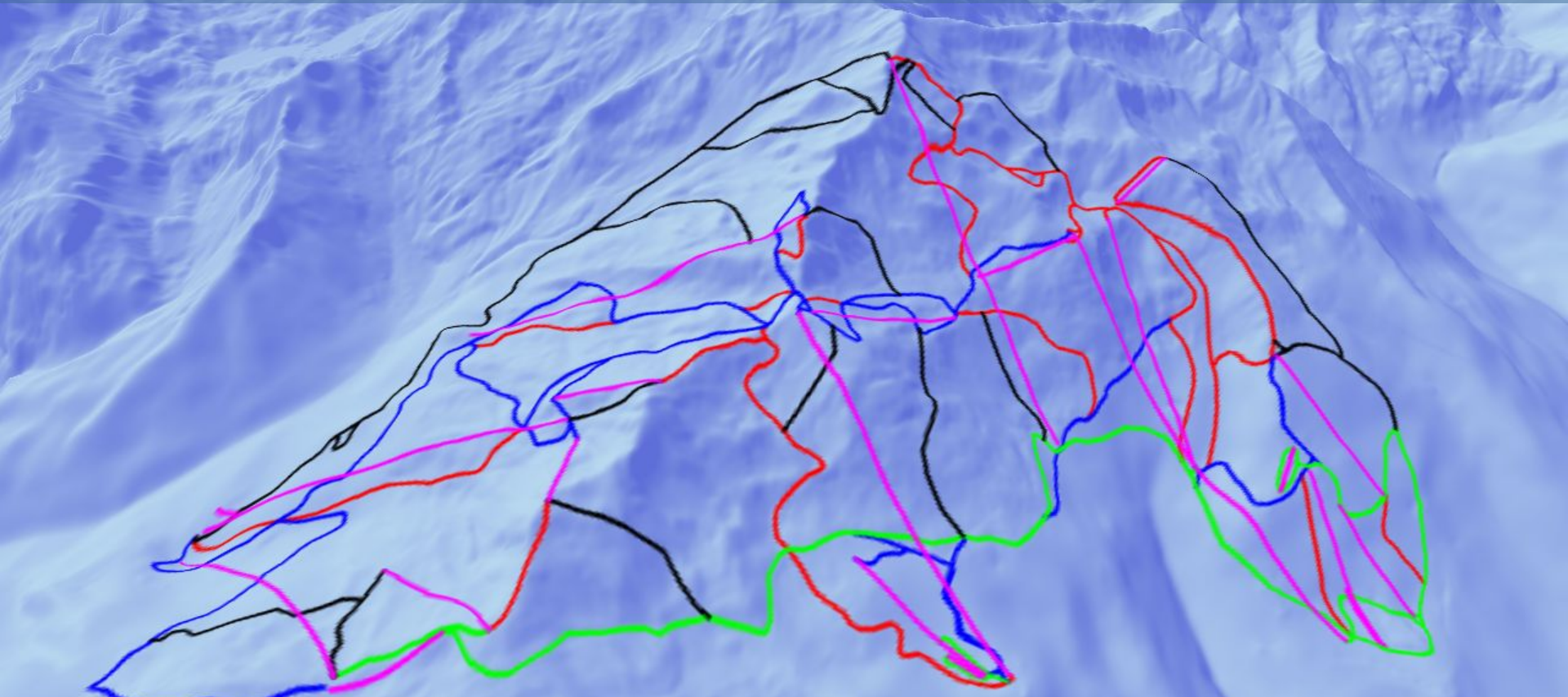


Terrain transformations
global optimization

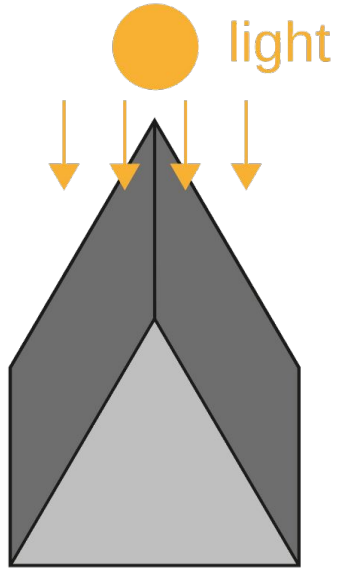


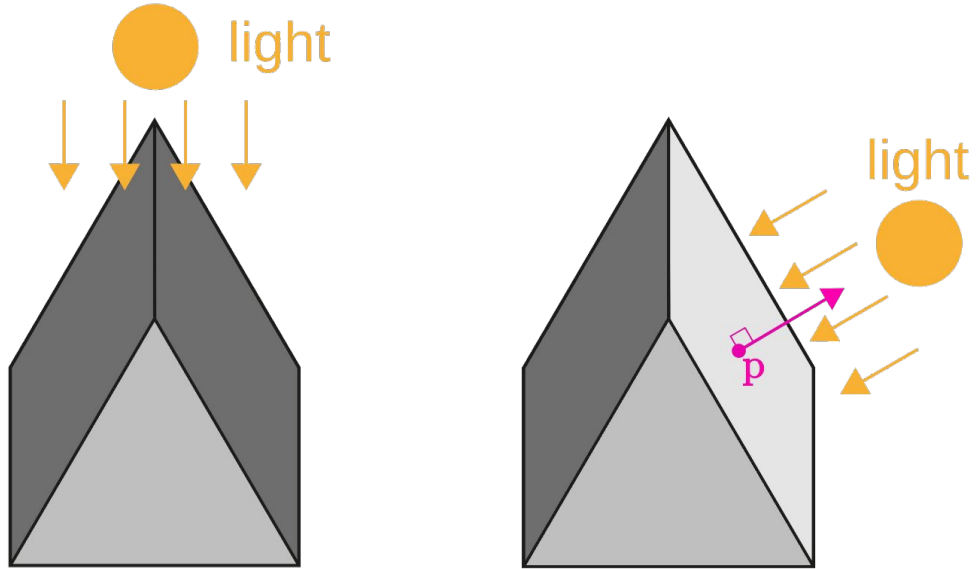
original

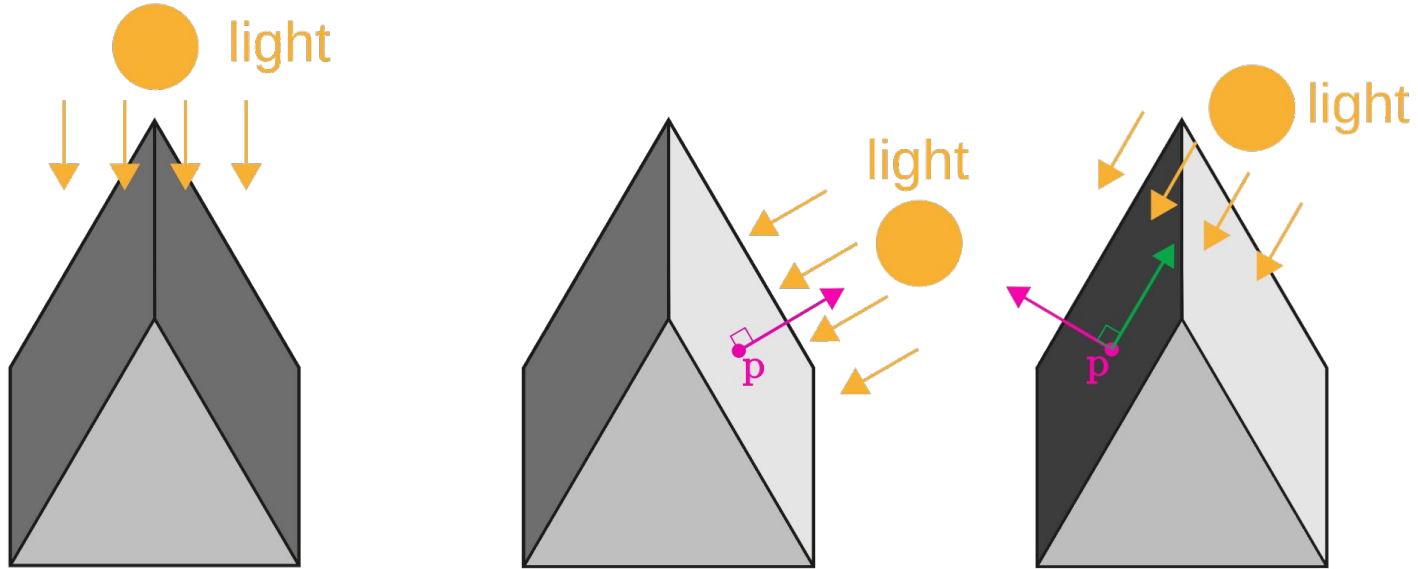
Terrain transformations
global optimization



optimized







Local Light Alignment shading



Local Light Alignment shading



Local Light Alignment

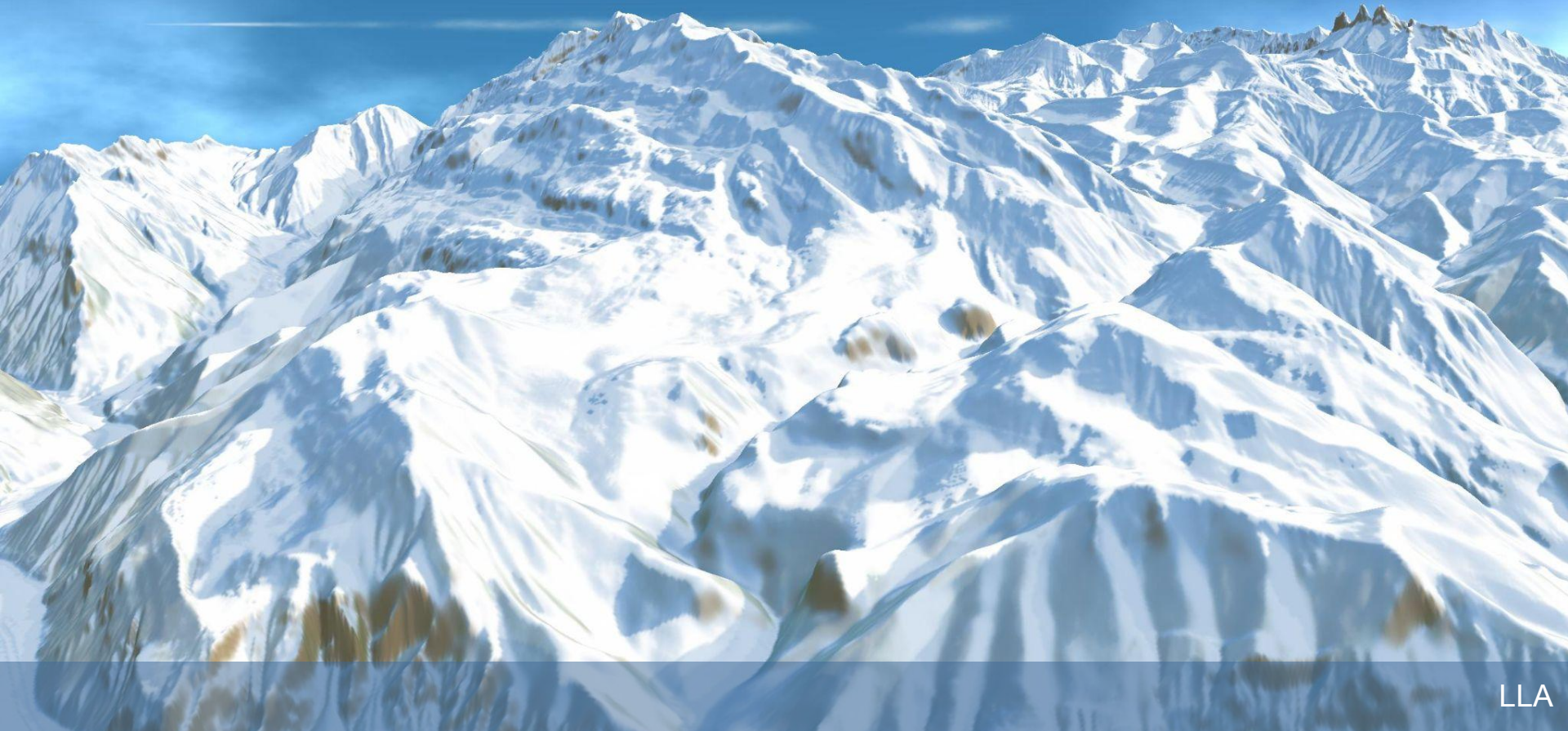
shading & cast shadows



original

Local Light Alignment

shading & cast shadows



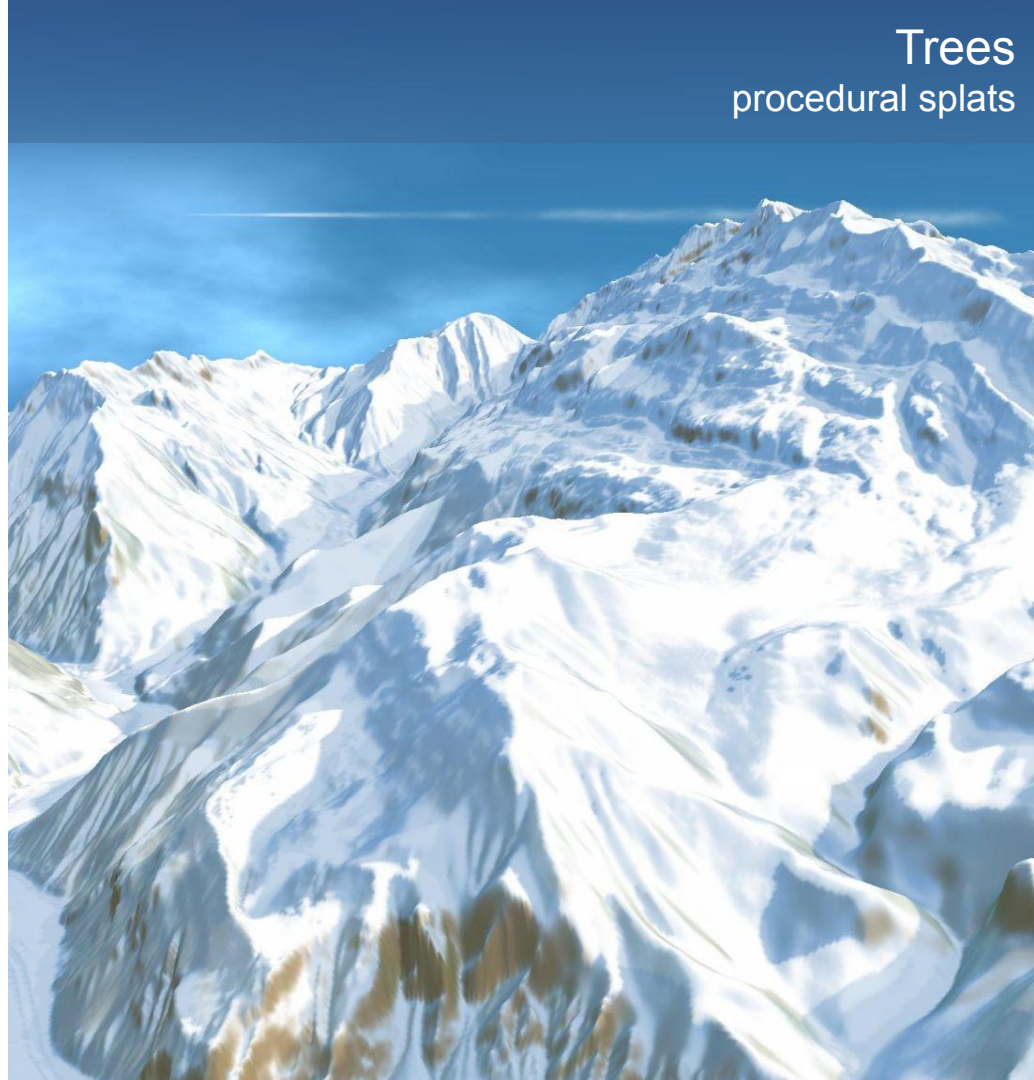
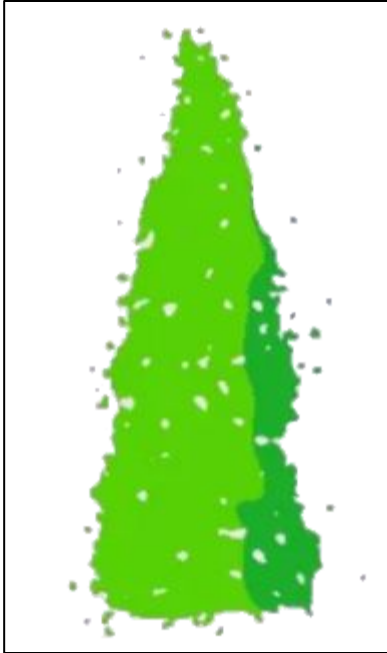
Local Light Alignment shading & cast shadows

▼ MicMap

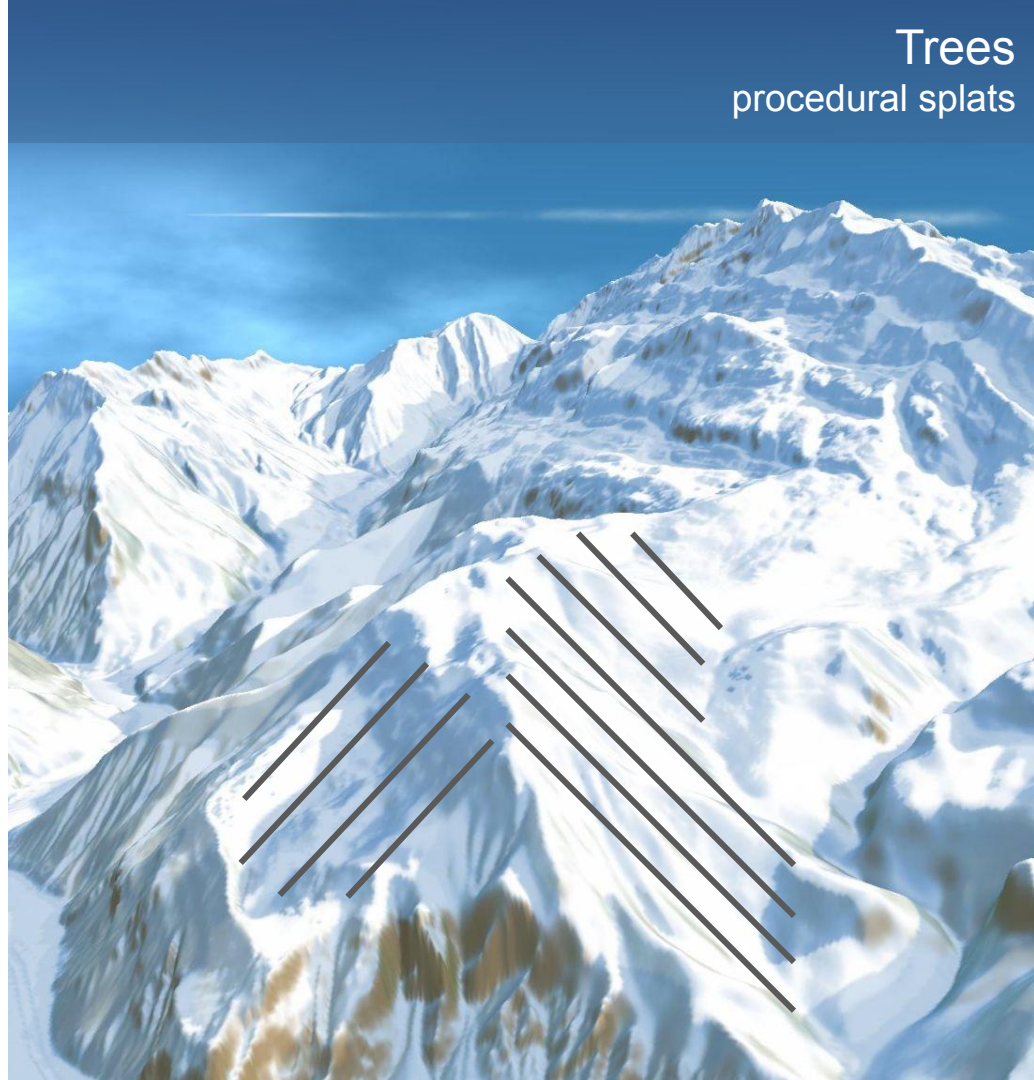
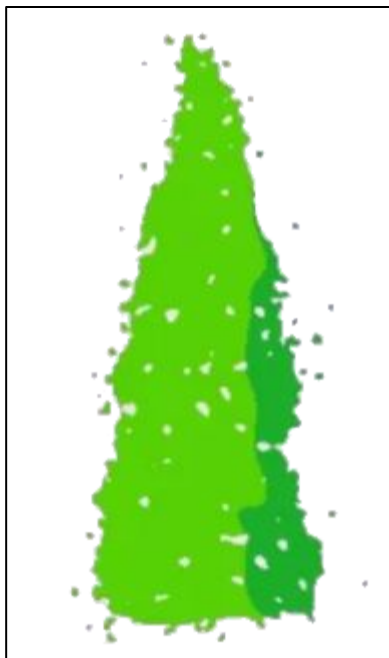
R: 0	G:117	B:255	■ snow_col
R:148	G:105	B: 0	■ rocks_col
■	0.000		Snow_altit
■	0.000		Snow_flat
■	0.000		Snow_vertic



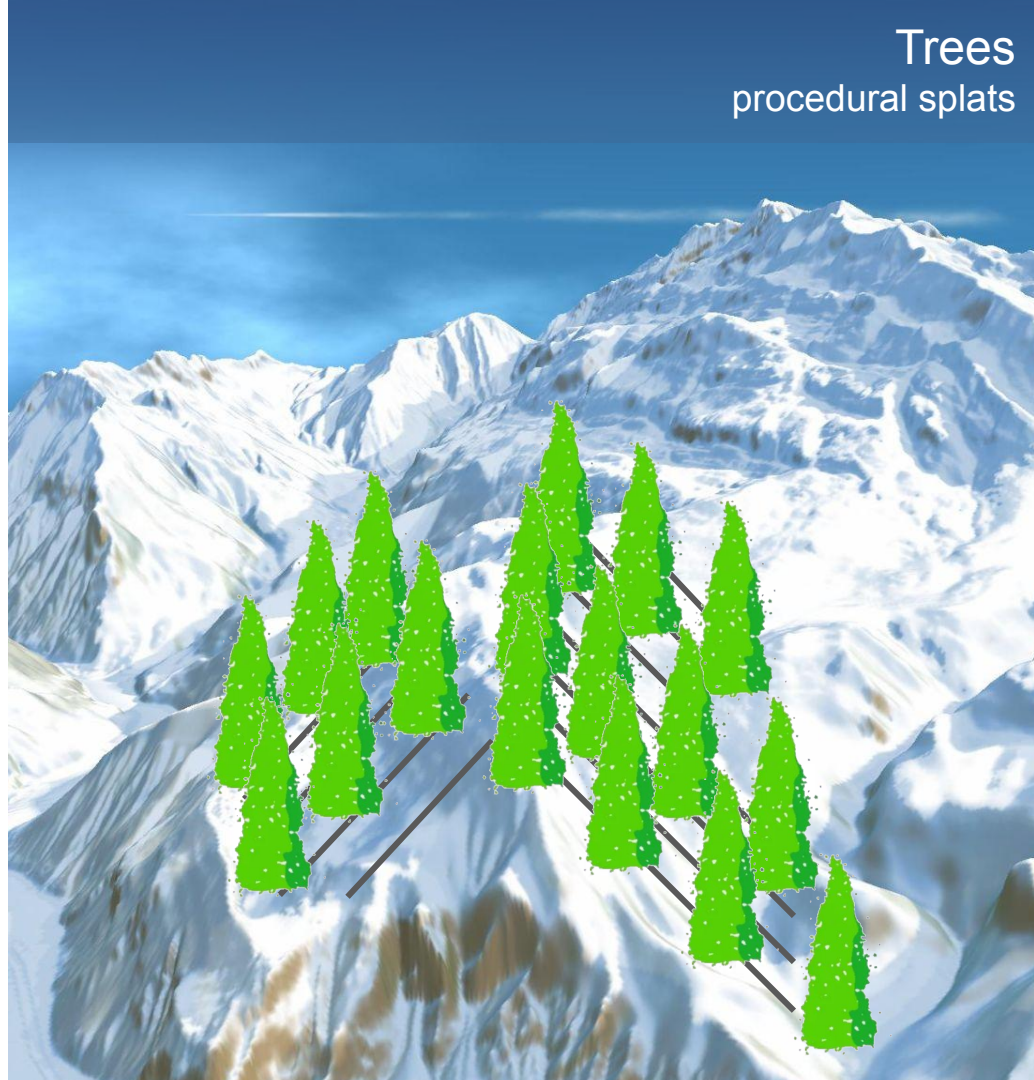
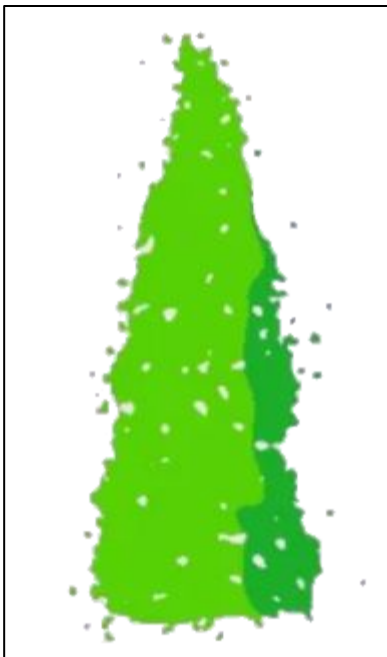
Trees procedural splats



Trees
procedural splats

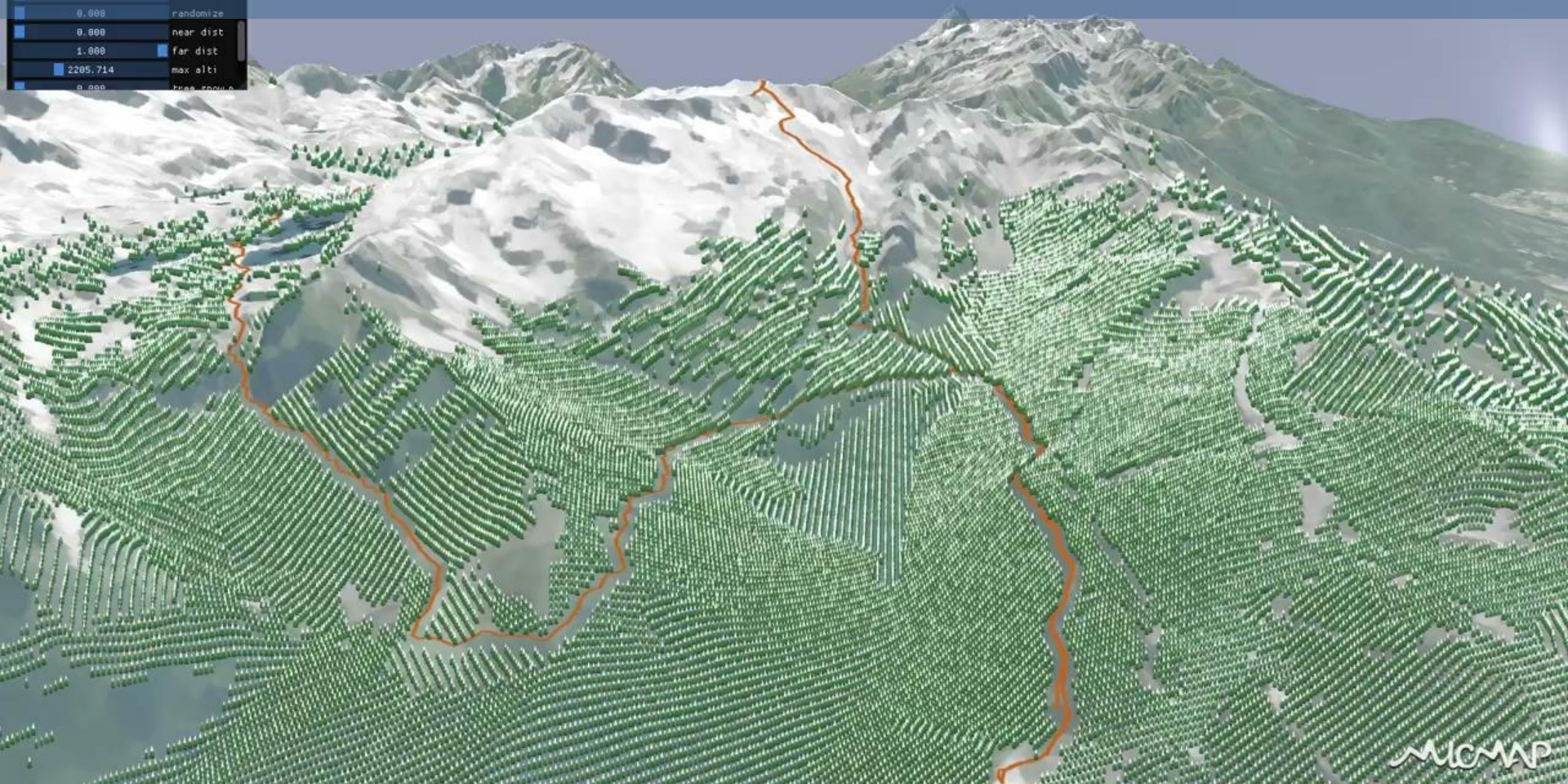


Trees procedural splats

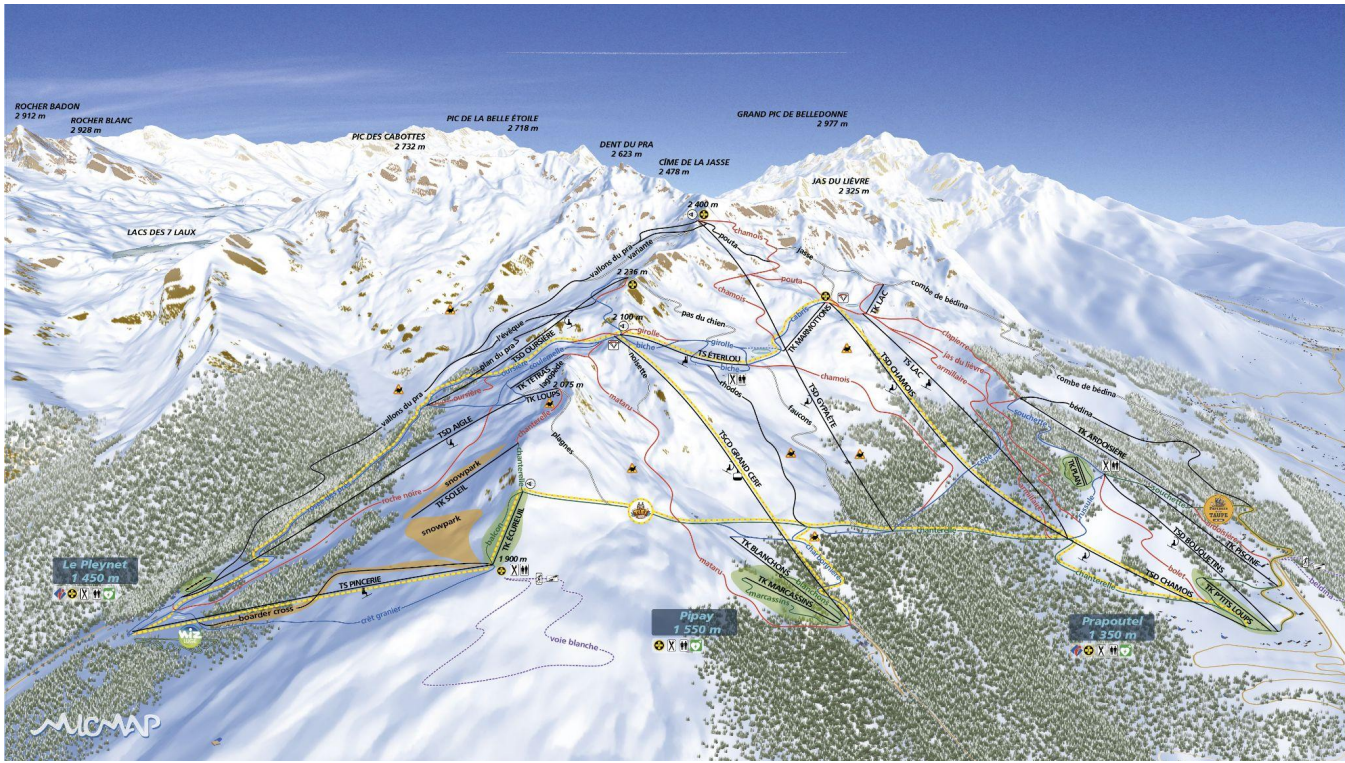


Trees procedural splats

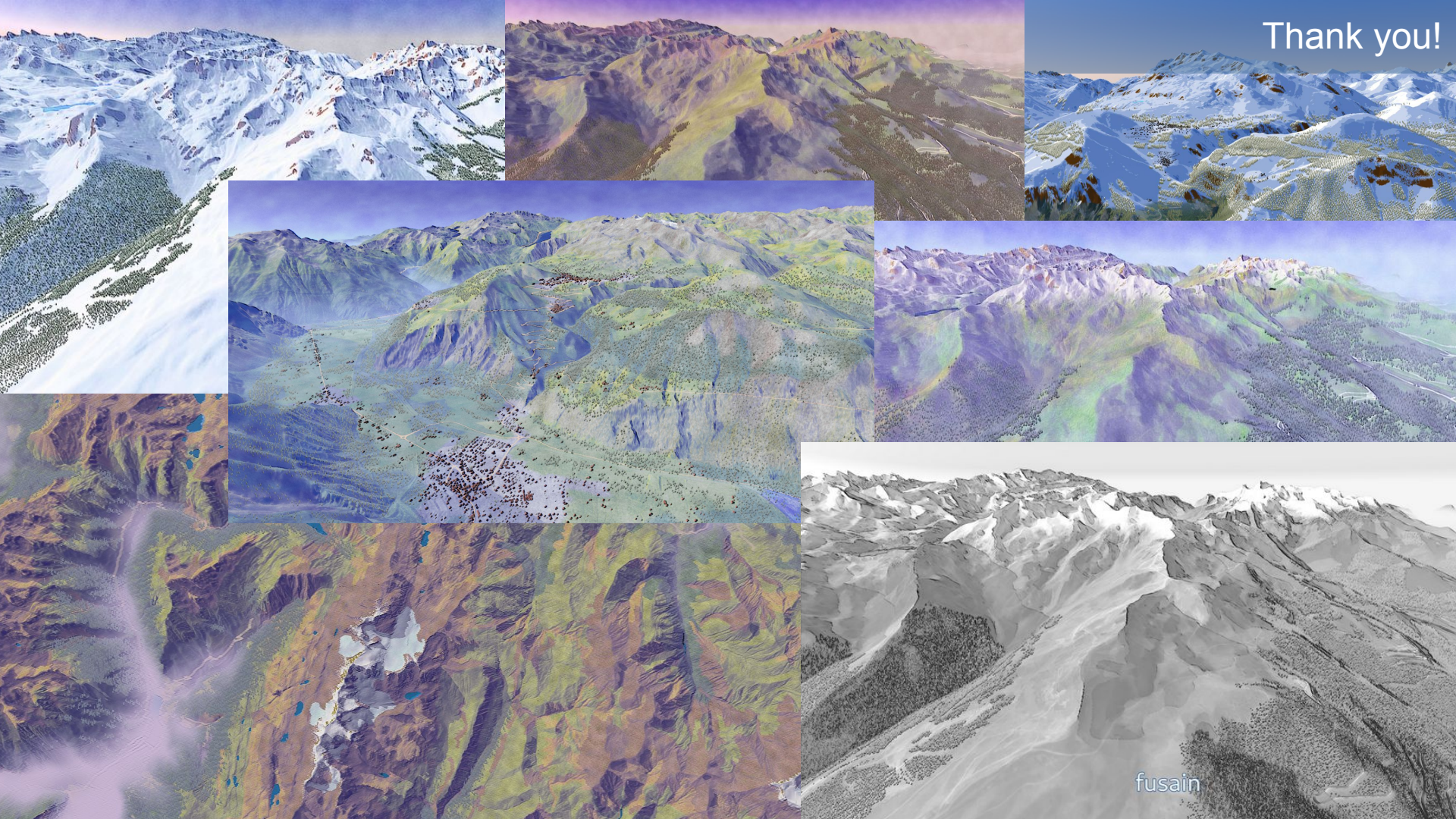
▼ MicMap	423	radius
	0.166	depth ratio
	0	decimate pr
	0	decimate li
	0.000	randomize
	0.000	near dist
	1.000	far dist
	2205.714	max alti
	0.000	tree radius



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



Thank you!



fusain

