MAPPING THE
VIA APPIA

3D GIS

Mapping the
Via Appia

Rens de Hond

Radboud University Nijmegen
VU University Amsterdam (SPINlab)

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VU UNIVERSITY AMSTERDAM

KNIR KONINKLIJK NEDERLANDS INSTITUUT ROME

NWO Netherlands Organisation for Scientific Research

Excavation

Architectural survey

Geophysical prospection & remote sensing

Field survey

Historical research

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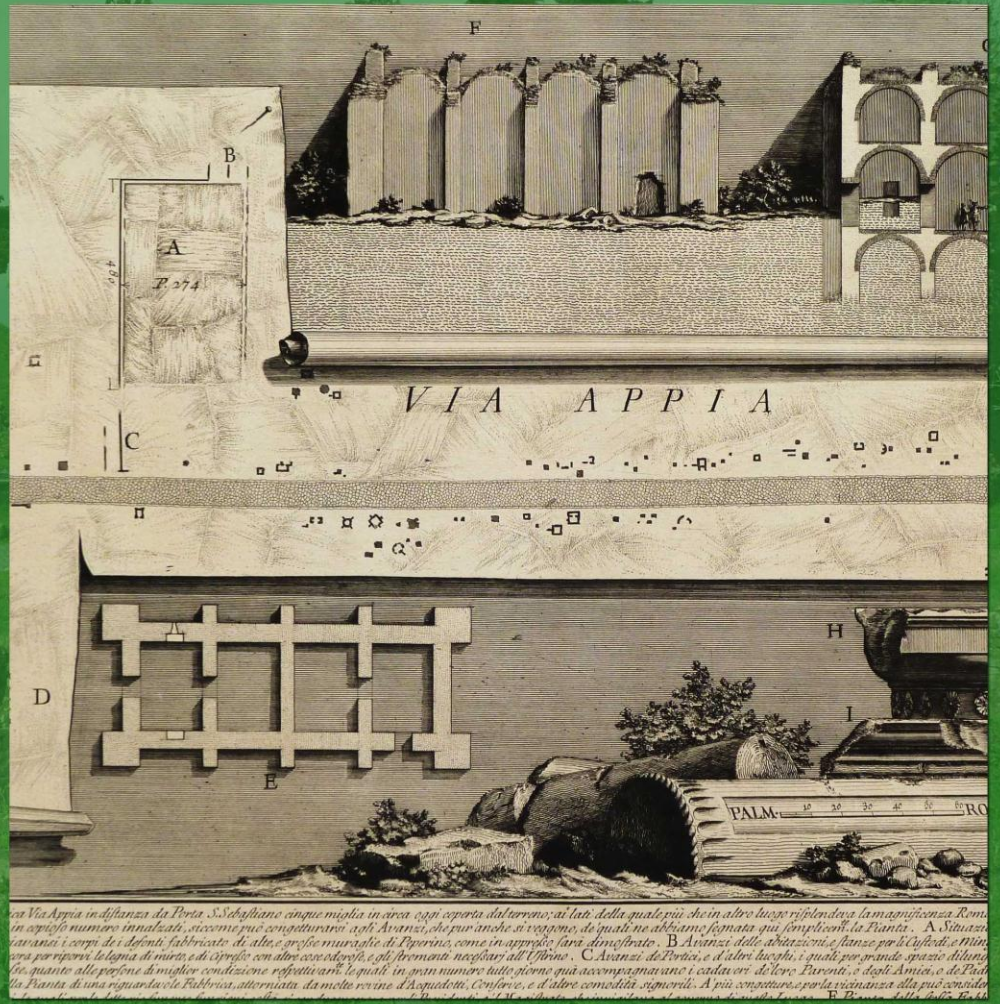

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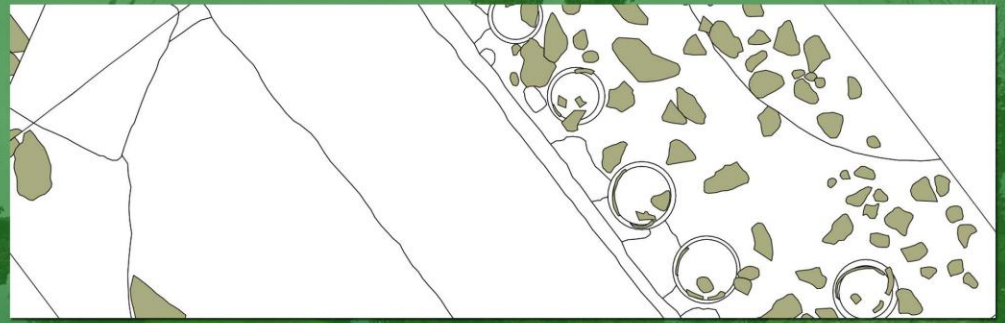

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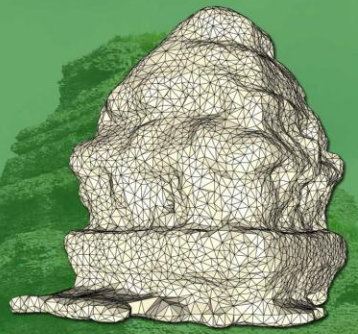
SPATIAL INFORMATION LABORATORY
Historical research
NWO
Netherlands Organisation for Scientific Research
3D GIS
FUGRO
GEODELTA

1 From physical reality to virtual 3D

2 From 3D models to 3D GIS

3 From 3D GIS to archaeological reconstruction

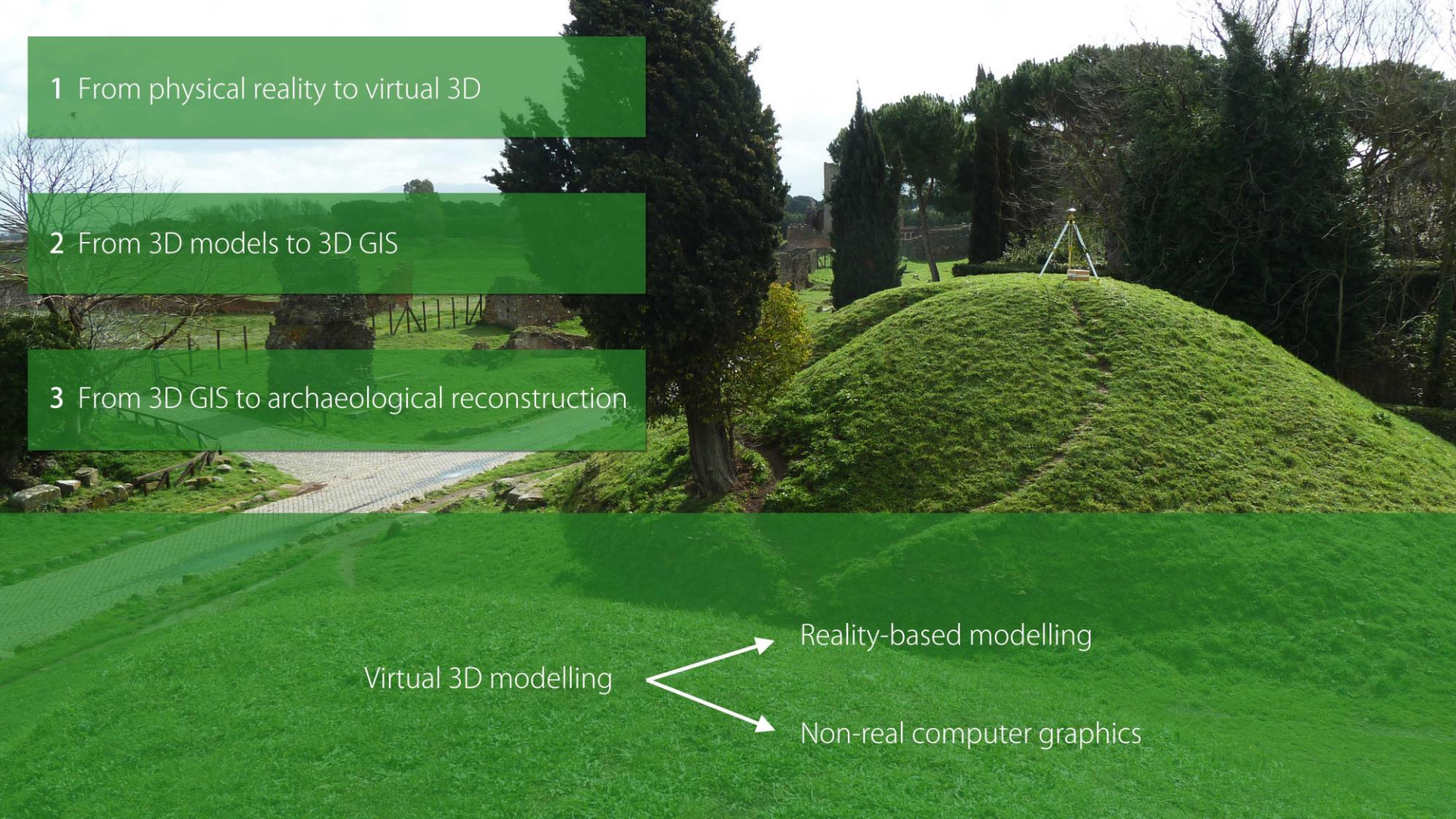


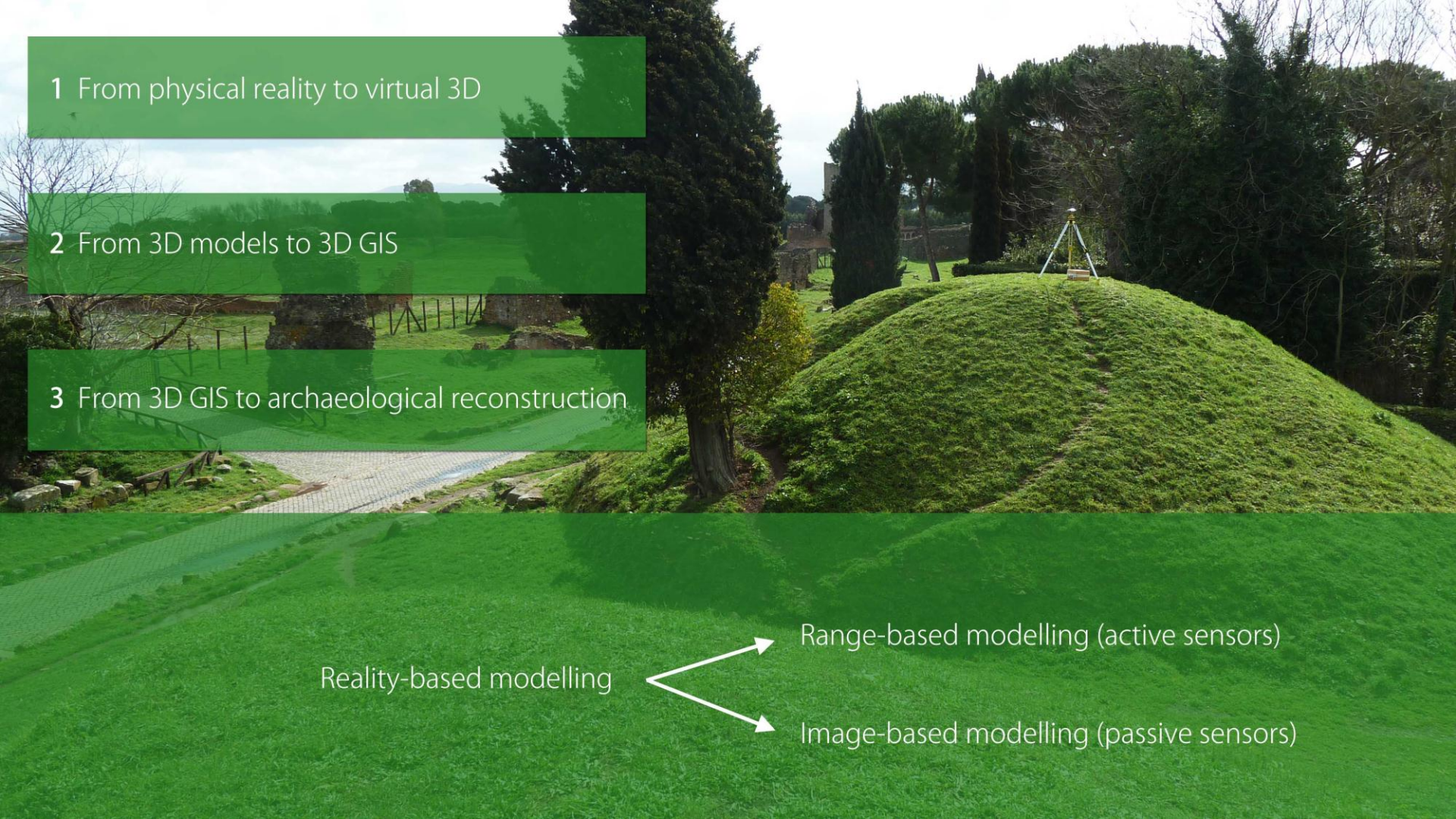
1

2

3

3D GIS


1 From physical reality to virtual 3D
2 From 3D models to 3D GIS
3 From 3D GIS to archaeological reconstruction
Virtual 3D modelling
Reality-based modelling
Non-real computer graphics



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Reality-based modelling

- Range-based modelling (active sensors)
- Image-based modelling (passive sensors)

1 From physical reality to virtual 3D

FUGRO DRIVE-MAP

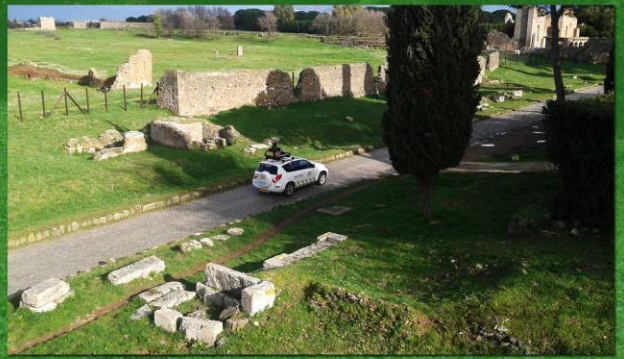
123D Catch

MeshLab

CloudCompare

2 From 3D models to 3D GIS

3 From 3D GIS to archaeological reconstruction



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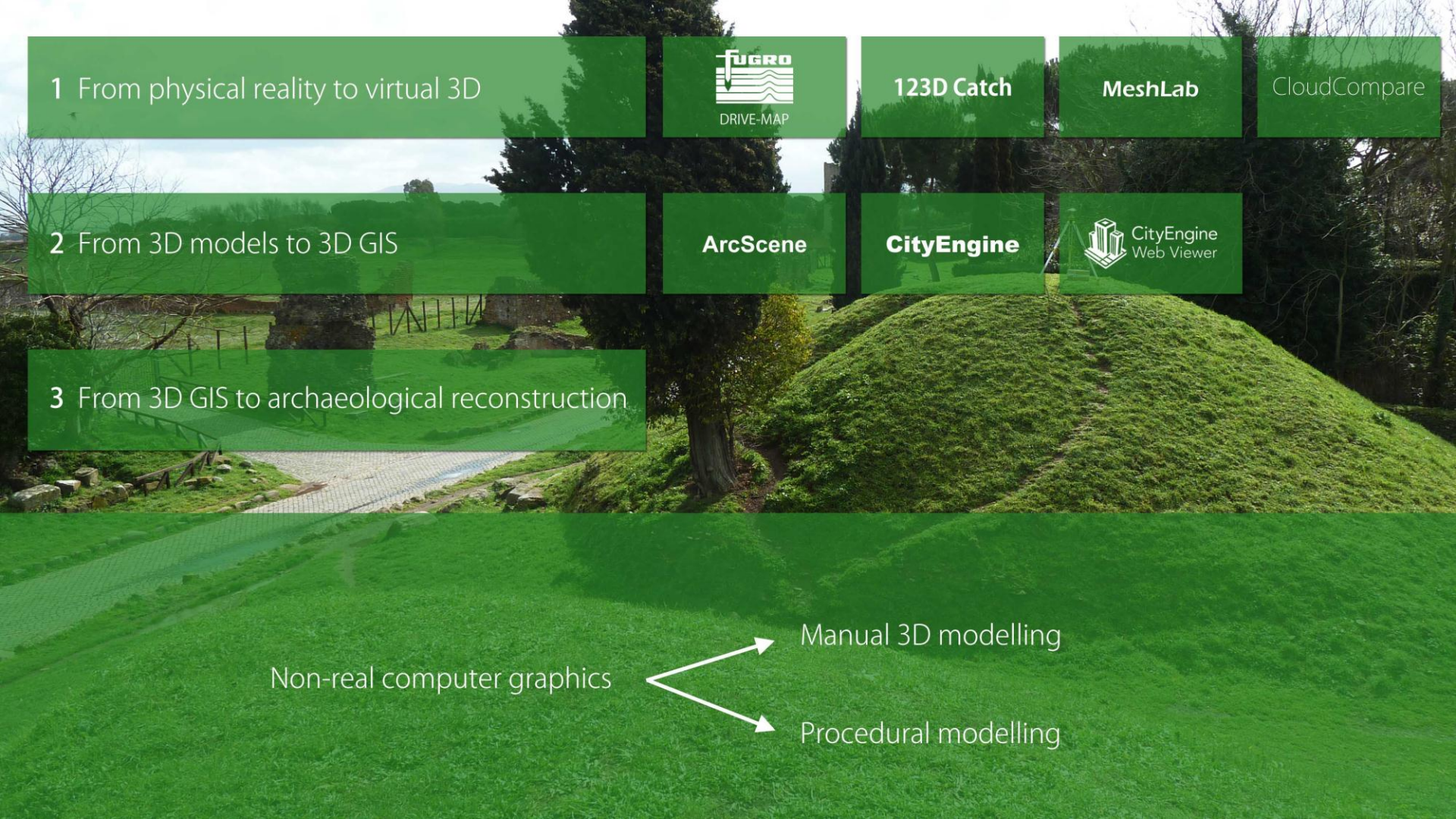
2 From 3D models to 3D GIS

ArcScene

CityEngine

CityEngine Web Viewer

3 From 3D GIS to archaeological reconstruction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DRIVE-MAP
123D Catch
MeshLab
CloudCompare
2 From 3D models to 3D GIS
ArcScene
CityEngine
CityEngine
Web Viewer
3 From 3D GIS to archaeological reconstruction
Non-real computer graphics
Manual 3D modelling
Procedural modelling

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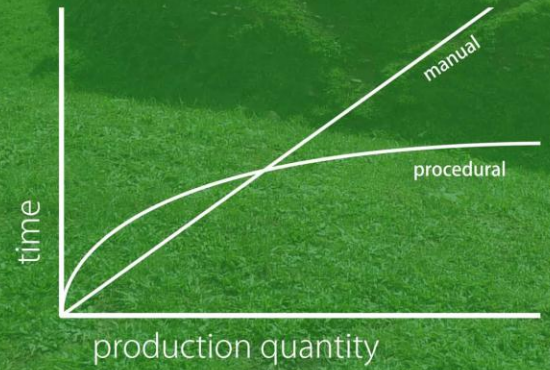

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ArcScene

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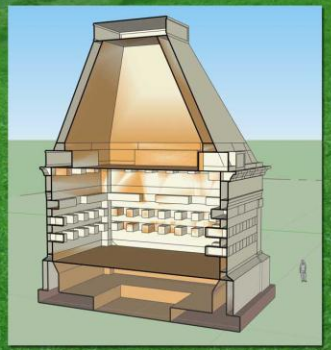
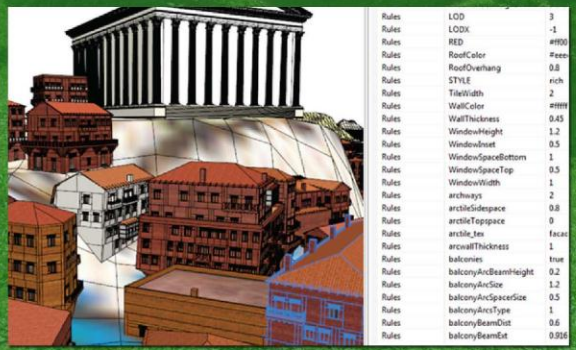
CityEngine Web Viewer

3 From 3D GIS to archaeological reconstruction

SketchUp

CityEngine





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