



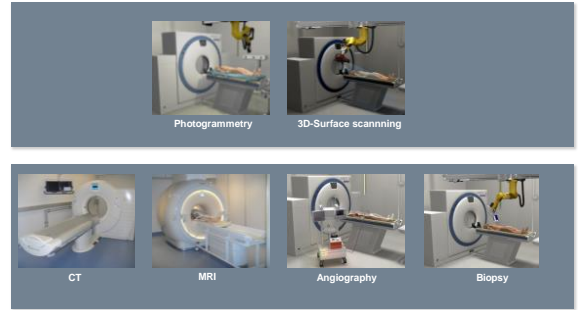
[www.virtopsy.com](http://www.virtopsy.com)  
[michael.thali@irm.uzh.ch](mailto:michael.thali@irm.uzh.ch)



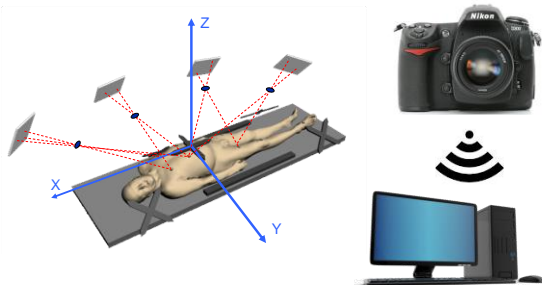
### Bridging Forensic & Radiology



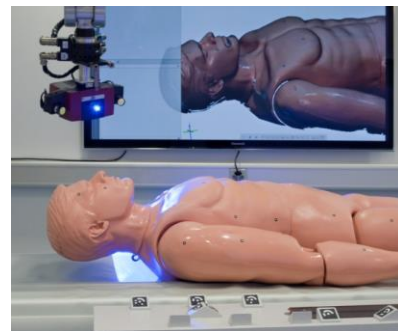
„We have a dream....“

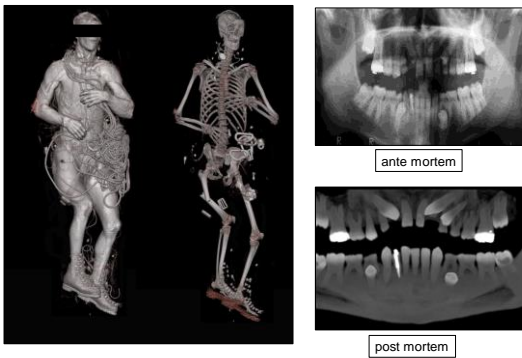
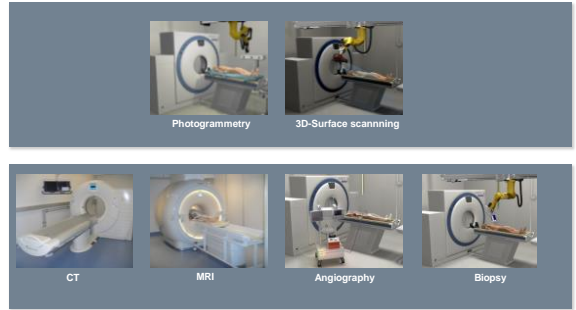
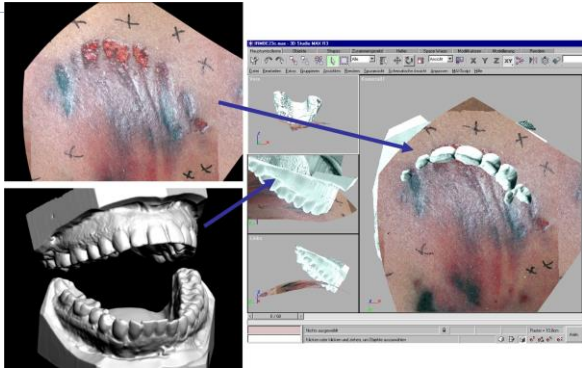


Process: digital photogrammetry

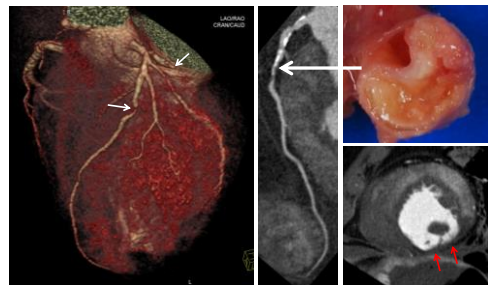


3D-Surface Scanner

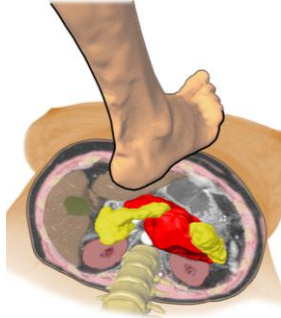
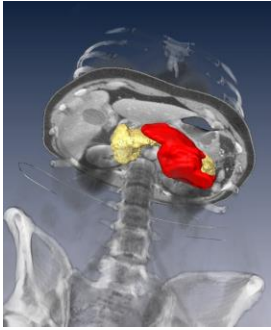




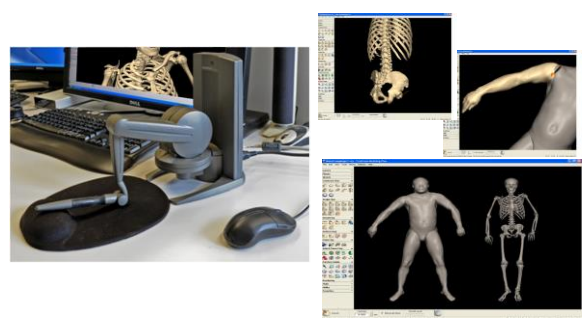
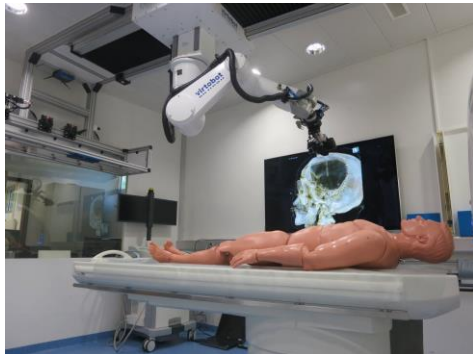
postmortem Angio CT



# Visualization



[www.virtopsy.com](http://www.virtopsy.com)



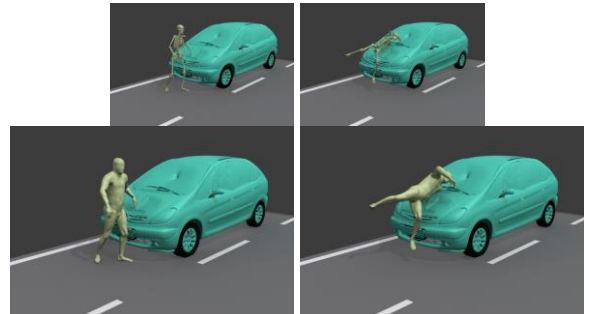
## Laser scanner at the Swiss Police



Zoller + Fröhlich Imager 5006  
Multiple frequency phase-shift method  
Faster, lower range



Leica Scanstation 2  
Time-of-Flight method  
Slower, larger range



## Rejection -> Religion / Family



## Advantages / Pros

- Speed up the process of decision making
- Observer-independent and objective data archiving
- Tele-radio-pathology / Tele-forensic ('second opinion')
- **Non-destructive, minimal-invasive and actual-size documentation in 3D**
  - can be used in cultures and situations where autopsy is not tolerated by religion or rejected by family members
  - chemo-bio-terrorism



- Every body is scanned before autopsy
- Most of questions; often already answered by Virtopsy
- Based on Virtopsy already 10% become "cancelled autopsy"
- Understandability of the findings increasing because of **3D and better visualization!**

### 1. CT (state of the art in modern forensics today!)

#### 2. Upgrade CT: Biopsy Angiography

....60-80% forensic relevant cause of death

#### 3. Photogrammetric based 3D surface scanning

#### 4. MRI



#### Upcoming Courses



12th March 16-20, 2015

Basic + Advanced Course in Zurich, Switzerland

For program information and registration: [ck&here](mailto:ck&here)

For more information contact: [vc12@virtopsy.com](mailto:vc12@virtopsy.com)

To maintain quality standards, we cannot accept more than 24 registrants for each the basic and advanced part of the course.

[www.virtopsy.com](http://www.virtopsy.com)

[www.virtopsy.com](http://www.virtopsy.com)

[www.irm.uzh.ch](http://www.irm.uzh.ch)

Youtube: Virtopsy

**Unsere Vision:** Das Unmögliche versuchen, indem wir mit bildgebenden Verfahren in einem Zug Alkohol, Drogen und Medikamente nachweisen – und auch den Gen-Faden darstellen.

Michael Thal