

Thermal Imaging for Tree Assessment

The IR Camera



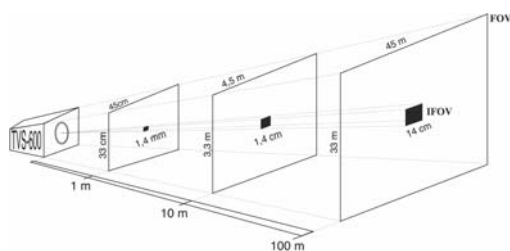
Catena & Thermography

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The Apparatus

- The AVIO TVS610 IR camera used measures the surface temperature of trees at a distance and gives their thermal images in b&w or in preset scales of colours in real time.
- Images can be stored on a Compact Flash Card and later downloaded and processed on to a PC.

The Geometric Resolution of the AVIO TVS 610 IR Camera

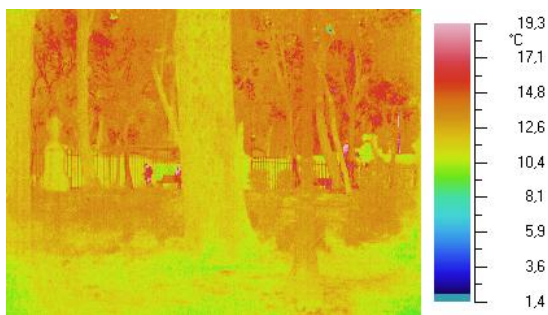


At 10m distance the camera points out the presence of 1.4x1.4cm decay

It's possible to use any IR camera as long as:

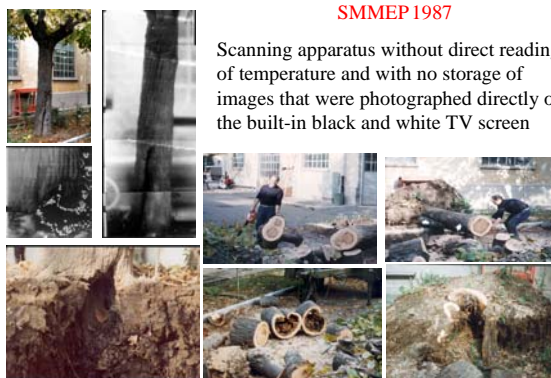
- it is hand-held and battery operated
- it has high thermal sensitivity (at least 0.1 °C),
- it has high geometric resolution,
- it has a monitor to visualise images,
- thermal images can be stored and later downloaded and processed on to a PC.

A Typical Thermal Image

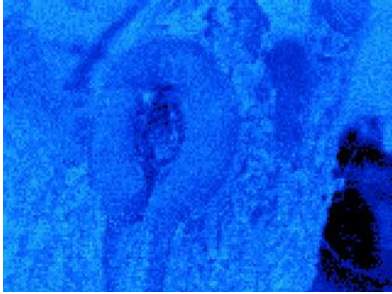


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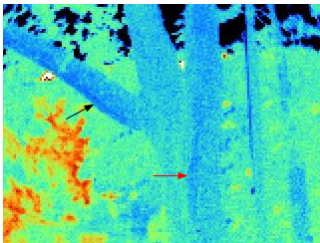
Scanning apparatus without direct reading of temperature and with no storage of images that were photographed directly on the built-in black and white TV screen



A Poor Geometric Resolution
Camera Image (shot at 3m distance)



A Poor Geometric Resolution
Camera Image (shot at 10m distance)



Interpretation Skills

- To be familiar with photographs
- To have good sight
- Not to be colour-blind
- To pay attention to details
- To have a good memory
- To be open-minded
