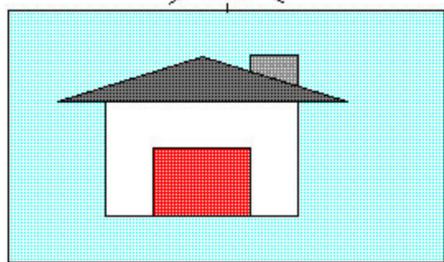
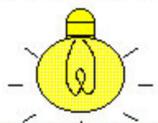


# SOME TECHNIQUES OF SCIENTIFIC ANALYSIS

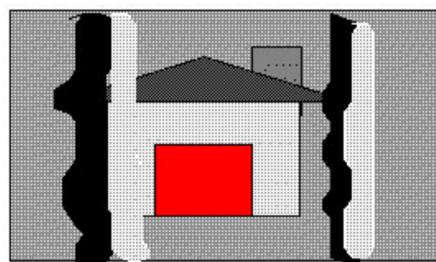
(DVR, SCMR)

## VISUAL ILLUMINATION:



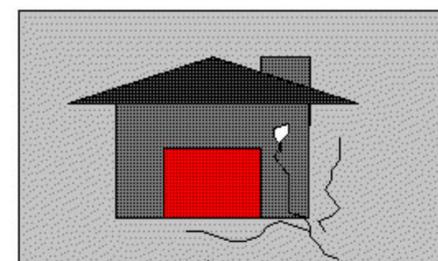
**SPECTRAL ILLUMINATION**  
(LIGHT SHINES ON FRONT)

(SHOWS COLOR, SHAPE, COMPOSITION)



**RAKING LIGHT**  
(LIGHT FROM THE SIDE)

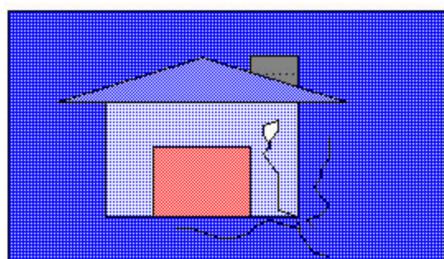
(SHOWS PLANAR DISTORTION, TEXTURE)



**TRANSMITTED LIGHT**  
(LIGHT FROM BACK)

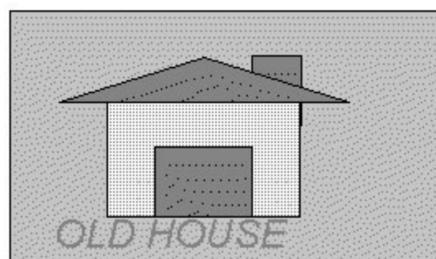
(SHOWS TEARS, LOSSES, MENDS, WATERMARKS, MOLD PATTERN)

## SPECIAL ILLUMINATION:



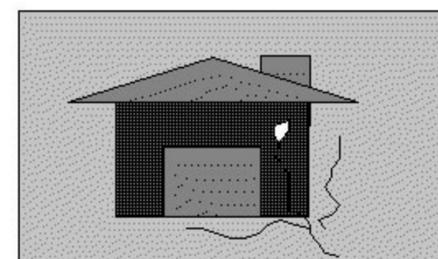
**ULTRALIOLET LIGHT**

(SHOWS FLUORESCENCE, STAINS, VARNISH)



**INFRARED LIGHT**

(SHOWS CARBON BASED UNDERDRAWINGS)



**X-RAYS, BETA RAYS, OR  
XERO RADIOGRAPHY**

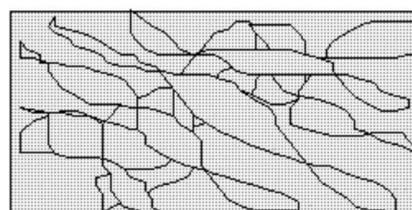
(SHOWS MOLD PATTERNS, WATERMARKS, DENSITIES)

## MAGNIFICATION:



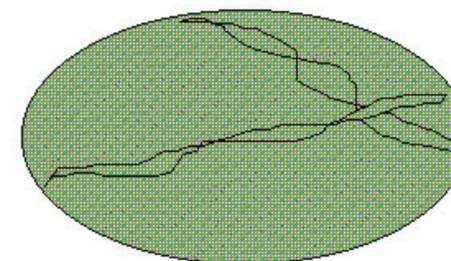
**STEREOSCOPIC MICROSCOPY**

(SHOWS COMPOSITION, TEXTURE)



**SCANNING ELECTRON MICROSCOPY**

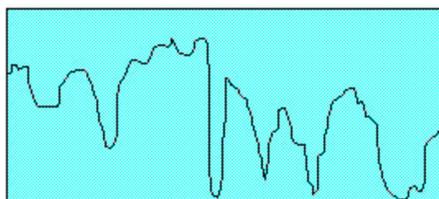
(SHOWS MORPHOLOGY)



**POLARIZED LIGHT MICROSCOPY**

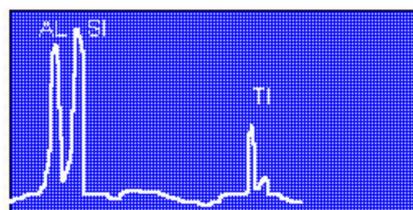
(SHOWS MORPHOLOGY, LIGHT PROPERTIES)

## ELEMENTAL ANALYSIS:



**FTIR SPECTROSCOPY**

(IDENTIFIES ORGANIC MATERIALS)



**SEM ELEMENTAL DISPERSION  
SPECTROSCOPY**

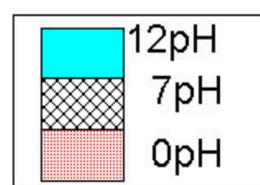
(IDENTIFIES INORGANIC MATERIALS)



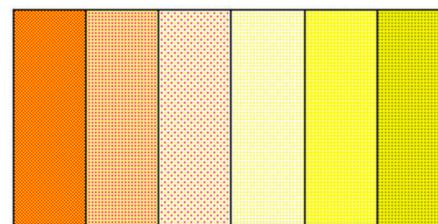
**X-RAY DIFFRACTION**

(IDENTIFIES INORGANIC MATERIALS)

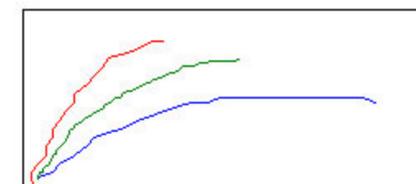
## PROPERTIES:



pH



**COLOR, OPACITY, GLOSS**



**TENSILE STRENGTH  
BURST STRENGTH, ETC.**