

IT'S A WONDERFUL PAINTING! I'M GLAD THAT SCIENTIFIC WORK HAD HELPED TO ITS AUTHENTICATION!

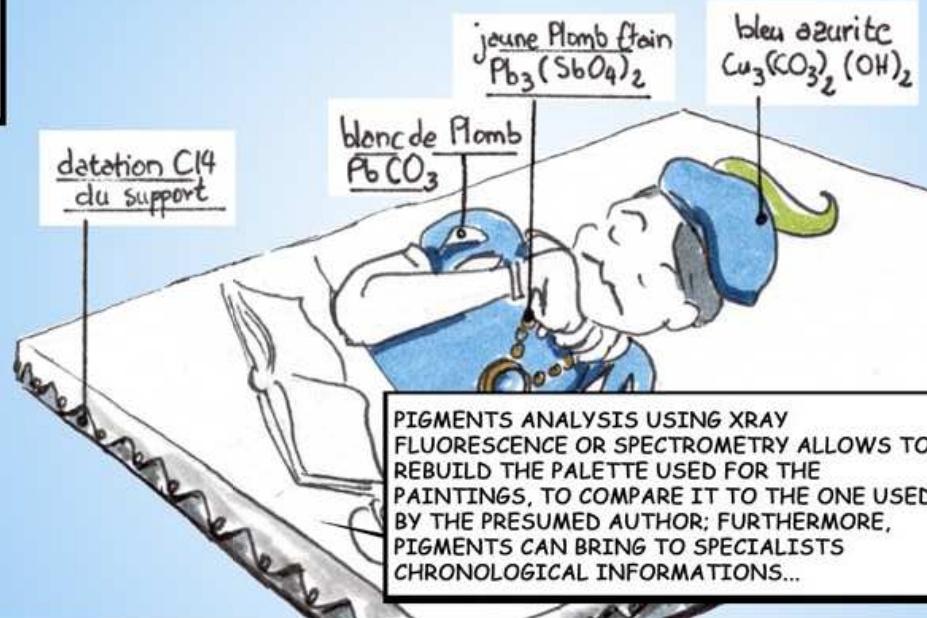


HOW CAN SCIENCE HELP EXPERTS FOR THE AUTHENTICATION OF PAINTING?

THIS IS A QUESTION WITH SEVERAL ANSWERS! GENERALLY WE LOOK FOR ANY EVIDENCE WHICH LINK THE PAINTING TO ITS PRESUMED AUTHOR...



AS A START WE CAN DATE THE SUPPORT USING CARBON DATING IF IT IS ORIGINAL? IN ORDER TO DEFINE IF THE SUPPORT IS CONTEMPORARY OF THE AUTHOR...



PIGMENTS ANALYSIS USING XRAY FLUORESCENCE OR SPECTROMETRY ALLOWS TO REBUILD THE PALETTE USED FOR THE PAINTINGS, TO COMPARE IT TO THE ONE USED BY THE PRESUMED AUTHOR; FURTHERMORE, PIGMENTS CAN BRING TO SPECIALISTS CHRONOLOGICAL INFORMATIONS...

I SEE... BUT WHAT IF FORGER HAD ACCESS TO AN OLD SUPPORT AND USED THE SAME PALETTE AS THE PRESUMED AUTHOR?...



THAT'S A GOOD POINT! WE STILL HAVE THE POSSIBILITY OF USING SEVERAL SCIENTIFIC IMAGING TECHNIQUES ON THE PAINTINGS, ...



TOGETHER WITH THE ANALYSIS OF ITS STATE OF CONSERVATION, IT ALLOWS US TO REBUILD THE PAINTING'S "HISTORY", THE DIFFERENT STEPS OF ITS REALIZATION, THE DIFFERENT TECHNIQUES, ... INFORMATIONS WHICH CAN BE USED BY SPECIALISTS FOR THE AUTHENTICATION

THUS? ACCORDING TO THE TECHNIQUE WE USE, WE ACCESS TO INFORMATIONS LOCATED MORE OR LESS DEEP IN THE PAINTING'S STRUCTURE...

surface
couche picturale
support
chassis

lumière blanche

UV

IR

Xrays

IT'S A LONG, THOROUGH AND VERY COMPLETE WORK WHICH IMPLY TO COMPARE THE SCIENTIFIC IMAGES WITH THE PAINTING ITSELF.

WHITE LIGHT APPLIED TO THE SURFACE AT VARIOUS ANGLE REVEALS THE AUTHOR'S PALETTE OF TECHNIQUE...

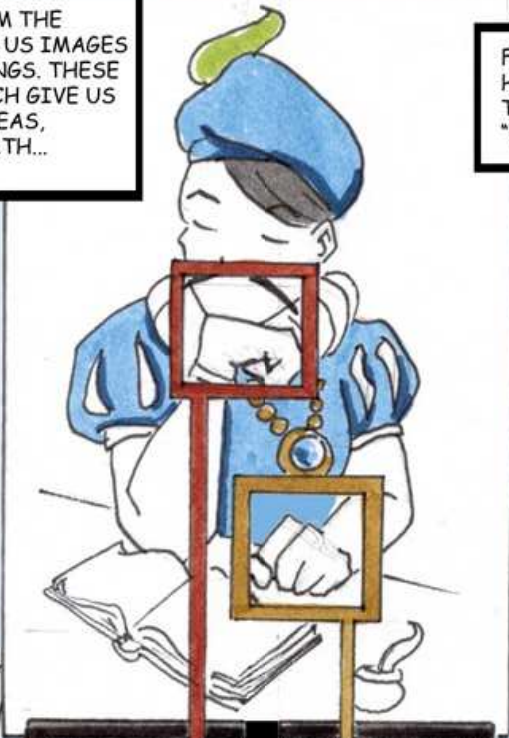
UV LIGHT REACTS WITH SOME COMPONENTS FROM THE SURFACE BY EMITTING A FLUORESCENCE,...

THIS APPROACH ALLOWS TO STUDY THE GENERAL STATE OF THE SURFACE, MICRO-STRUCTURE, CRACKS, ...

... WHICH LEAD US TO THE RECOGNITION OF SURFACE COATINGS, RETOUCHED AREAS, RESTAURATIONS, AND PIGMENTS OF DIFFERENT COMPOSITION PRESENTING THE SAME COLORATION,...

A CAMERA DETECTING WAVELENGTH FROM THE INFRARED AND NEAR INFRARED BRINGS US IMAGES FROM THE DEEP LAYERS OF THE PAINTINGS. THESE ARE COMPARED TO THE PAINTING, WHICH GIVE US ACCESS TO SKETCHING? RETOUCHEDES AREAS, RESTAURATIONS,... LOCATED UNDERNEATH...

FINALLY, XRAY RADIOGRAPHY THAT WE HAVE PREVIOUSLY STUDIED, ALLOWS US TO GET AN IMAGE FROM THE WHOLE "PAINTING + SUPPORT"...



CHARACTERISTICS OF THE SKETCHING, MOSTLY REALISED USING GRAPHITE, MAKE THEM SPECIALLY SENSIBLE TO THIS TECHNIQUE. THAT IS NOT THE CASE OF SKETCHING REALISED USING SANGUINE, A RED PIGMENT. INFRARED ALLOWS US TO FIND ANY ELEMENT WHICH HAVE BEEN PARTILLY ERASED OR COVERED BY PAINT...

WE STILL COMPARE THE PAINTING TO THE XRAY IMAGES WE GET, IN ORDER TO REVEAL AREAS WHICH HAD BEEN RETOUCHEDES...

THE AMOUNT OF INFORMATIONS SCIENTIFIC STUDIES CAN REVEAL IS QUITE IMPRESSIVE!...



INDEED! WE CAN REALISE FULL SCIENTIFIQUE REPORT AND PUBLICATION WHICH ARE REALLY USEFULL FOR EXPERTS TO AUTHENTICATE PAINTINGS. THAT'S WHY SEVERAL FAMOUS PIECES OF FINE ART ARE STILL BEING STUDIED, IN ORDER FOR THEM TO REVEAL ALL OF THEIR SECRETS!...