ANALYTICAL RESULTS – OBJECT 6

NUMBER OF PARTNER:	**UNITO - CCR**
TYPE OF WORK:	**Mural (Object 6)**
COUNTRY:	**Italy**
CITY:	**Turin**
ADDRESS:	**Piazza Moncenisio**
OWNER / CUSTODIAN:	**MAU - Museum of Urban Art**
ARTIST:	**Elisabetta Viarengo Miniotti**
TITLE OF THE WORK:	**Bosco**
YEAR OF EXECUTION:	**1995**
MATERIALS:	**Brush painting on mural**

SAMPLING POINTS LOCATION

TABLE OF ANALYTICAL RESULTS

	Name of the sample	Original materials	No original materials	Pigments / dyes		Organic binders		Type of support*		Other**	
				Identification methods	Results	Identification methods	Results	Identification methods	Results	Identification methods	Results
1	**Military green paint layer**			ATR-FTIR SEM-EDS	Calcite, Ti white	ATR-FTIR Py-GC/MS	Styrene-acrylic			Py-GC/MS	VA/VeoVa (Protective coating)
2	**Black paint layer**			ATR-FTIR	Calcite, silicates	ATR-FTIR Py-GC/MS	Styrene-acrylic			Py-GC/MS	VA/VeoVa (Protective coating)
3	**Oil green paint layer**			ATR-FTIR SEM-EDS	Calcite, silicates, barite, Ti white	ATR-FTIR	Possibly styrene-acrylic				
4	**Orange paint Layer**			ATR-FTIR	Calcite, Kaolin, silicates, possibly PO 5	ATR-FTIR Py-GC/MS	Styrene-acrylic			Py-GC/MS	VA/VeoVa (Protective coating)
5	**Pale yellow paint layer**			ATR-FTIR	Calcite, silicates	ATR-FTIR	Possibly styrene-acrylic				
6	**Pale pink paint layer**			ATR-FTIR SEM-EDS	Calcite, talc, Ti white	ATR-FTIR	Possibly styrene-acrylic			ATR-FTIR	oxalates
7	**Brown paint layer**			ATR-FTIR	Calcite, silicates	ATR-FTIR	Possibly styrene-acrylic				
8	**Cross Section**										

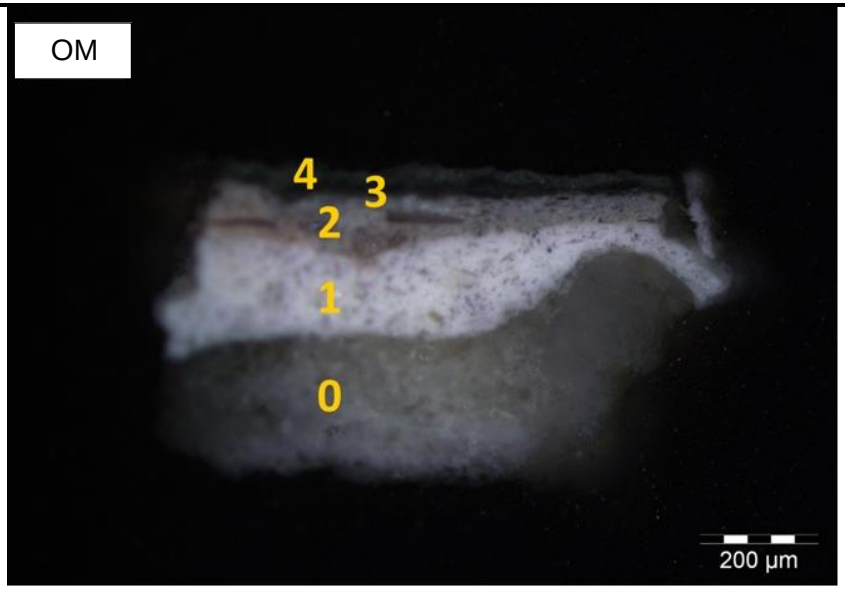
9	**Protective Layer**					ATR-FTIR Py-GC/MS	VA/VeoVa			ATR-FTIR	Calcite, silicates (contamination from the paint layer brown)

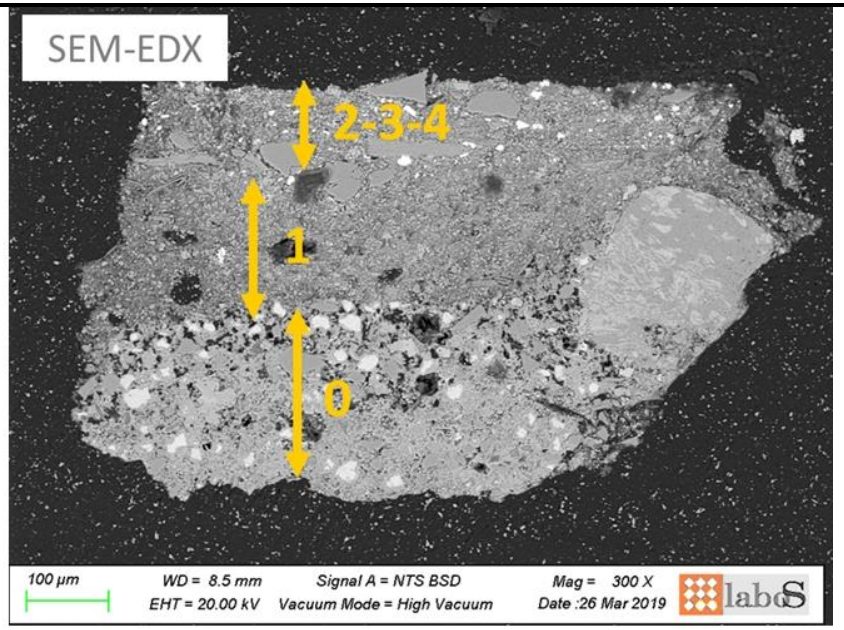
*** mortars, stone, metal ect.**

**** Additional research or analyzes, for example: aging tests, colorimetry, pH…**

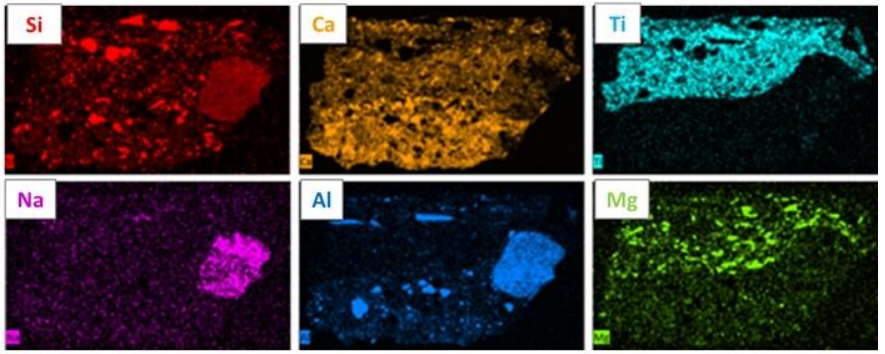
STRATIGRAPHY OF THE MICROSAMPLES

Sample n°: OBJ6_8



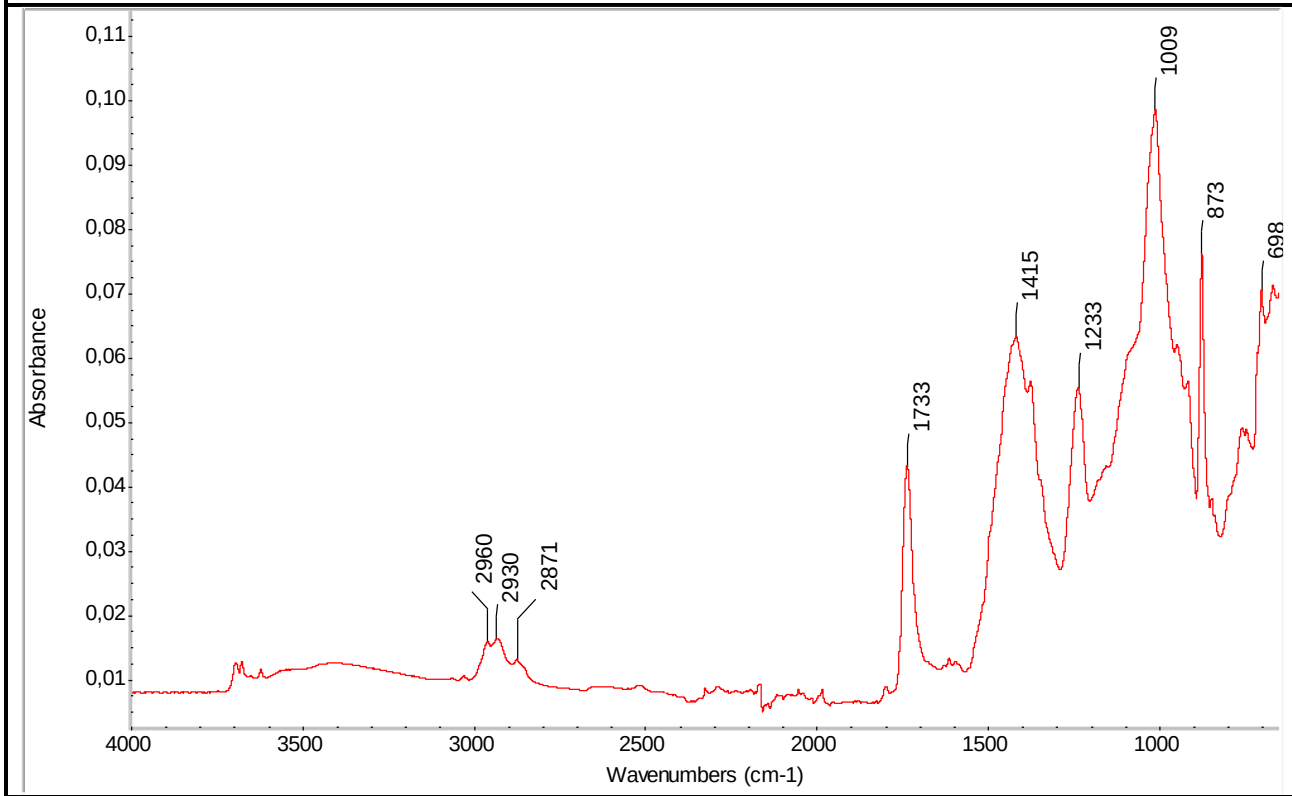


0 – support	**Ca**, Al, Si, (Na), (S), (Cl) + carbonate aggregates + quartz inclusions + Na,Al-silicate inclusion + Ca-aluminate aggregates
1 – white	**Ca, Si, Ti,** (Al), (Mg)
2 – pale pink **3 – oil green** **4 – military green**	**Si, Ca,** Ti, Al, (Mg) + $BaSO_4$ aggregates + quartz inclusion



FOURIER-TRANSFORM INFRARED SPECTROSCOPY (FTIR)

Sample n°: OBJ 6-4



ASSIGNMENTS:

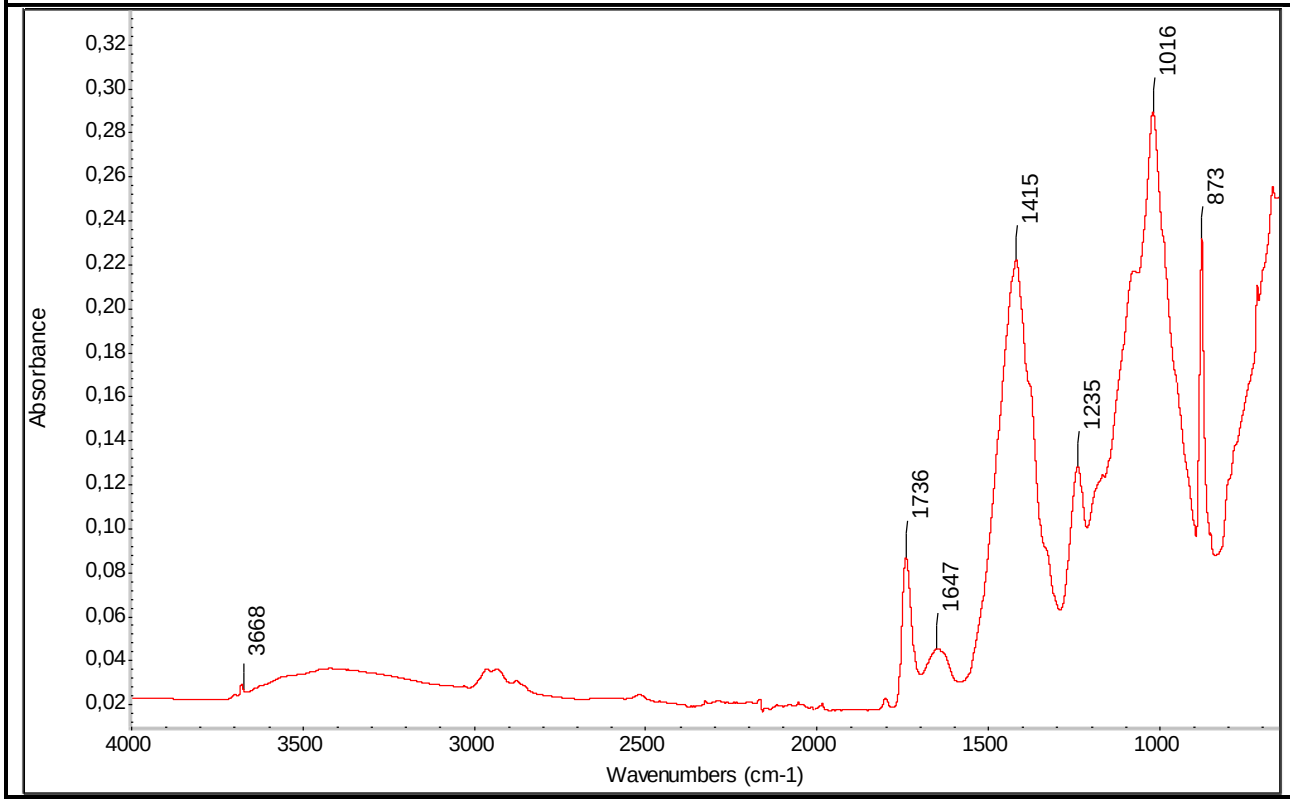
Acrylic: 296 cm^{-1}, 2874 cm^{-1}, 1732 cm^{-1}, 1449 cm^{-1}, 1386 cm^{-1}, 1271 cm^{-1}, 1240 cm^{-1}, 1148 cm^{-1}, 1067 cm^{-1},842 cm^{-1}, 751 cm^{-1}

Calcite: 1796 cm^{-1},1415 cm^{-1},873 cm^{-1},

Kaolin: 3694 cm^{-1},3672 cm^{-1},1012 cm^{-1}, 802 cm^{-1}

Silicates: 900-1200 cm^{-1}

Sample n°: OBJ 6-6



ASSIGNMENTS:

Acrylic: 2993 cm^{-1}, 2952 cm^{-1}, 2874 cm^{-1}, 1732 cm^{-1}, 1449 cm^{-1}, 1386 cm^{-1}, 1240 cm^{-1}, 1148 cm^{-1}, 1067 cm^{-1}, 989 cm^{-1}

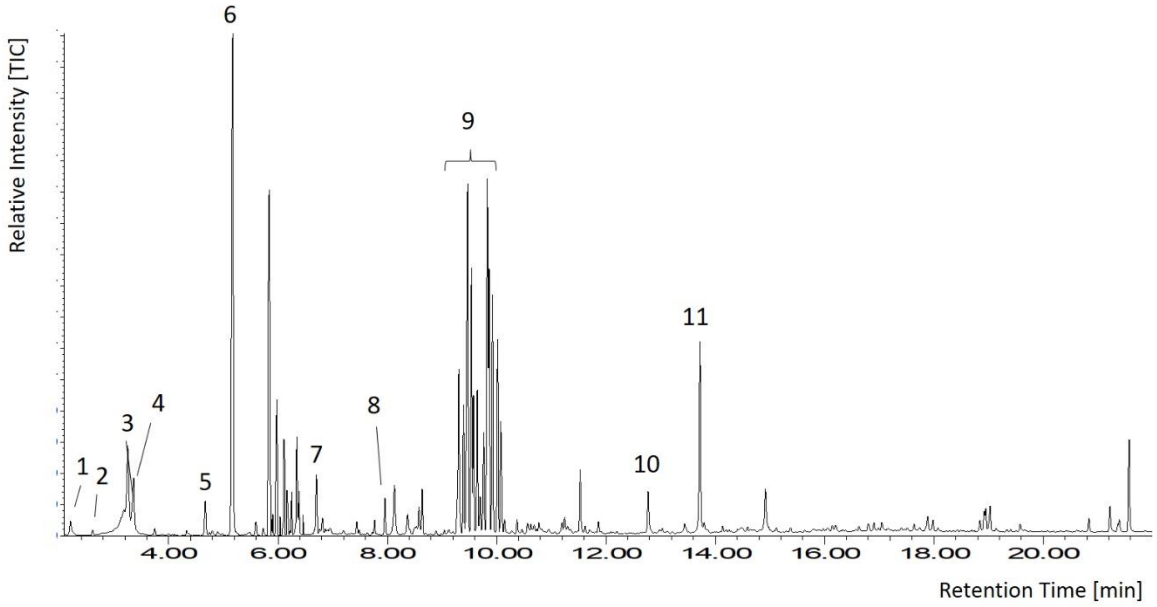
Calcite: 2511 cm^{-1}, 1796 cm^{-1},1428 cm^{-1},877 cm^{-1}, 712 cm^{-1}

Talc: 3676 cm^{-1},1016 cm^{-1}

Titanium White : < 600 cm^{-1}

PYROLYSIS-GAS CHROMATOGRAPHY/MASS SPECTROMETRY

Sample n°: OBJ 6-4



Peak N.	Assignment	Rt (min)
1	benzene	2.2
2	methyl methacrylate	2.6
3	toluene	3.2
4	acetic acid	3.4
5	ethylbenzene	4.7
6	styrene	5.2
7	α-methyl styrene	6.7
8	(1-methylenepropyl)-benzene	8.0
9	vinyl versatates	9.3-10.1
10	biphenyl	12.8
11	ethenylbenzene, dimer	16.9

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