

# **A Look at Michelangelo's Sistine Chapel The Bridge between Mannerism and Baroque and What Restorers Destroyed**

By Peter Arguimbau

For five centuries restorers have exercised the most extreme care to preserve and maintain intact Michelangelo's Sistine Ceiling until now. Since the creation of the ceiling, within every decade, some restorative measures have been performed. Salts and mildew were constantly forming over the fresco that required repeatedly washing and brushing off. Over the centuries there have been five attempts for complete cleanings, however, in 1981 the Vatican decided to perform the be all definitive restoration using an extremely astringent industrial solvent, AB 57. The ill-advised intervention was thought to clean off centuries of soot thought to come from the oil lamps that lit the ceiling, which ironically was a lamp black varnish coat put on by the Masters' hand. Michelangelo had redefined fresco painting and restorers were oblivious to the ingenuity of his methods. This irrevocably over cleaning is the result of restorers who rely on science using modern industrial products without understanding the materials and methods of the artist, in this case altering man's greatest endeavor, Michaelangelo's Sistine Ceiling.

This intervention on the Sistina dramatically changed the effect of the mural, stripping off 'A seco' glaze varnish and rendering the opera a day-glow cartoon. GianLuigi Colalucci, Director for Conservation at the Vatican and restorer of the Sistine Chapel, and the Vatican Director off the Laboratory for the Restoration of Pictures, Carlo Pietrangeli, erroneously believed from their testing, that the ceiling was covered in soot and needed severe cleaning. Colalucci, trained in Il' Instituto de Restouro in Rome, had experimented with cleaning solvents on frescos. Most notably the 'Coronation of Charlemagne' by Raphael in the Vatican Stanzas, which he cleaned with AB 57, a soda reactant, and to his credit, exposing a whole array of beautiful colored banners that had been

painted over at the discretion of a later pope. With this success and great acclaim, Colalucci proposed to clean the Sistine by this method.

History has a way of expressing itself, it does not stand alone and it's not about facts or; it is about connectivity, human connections. Michelangelo had no intention of going to Rome and rejected Julius II demands three times until he was forced to go. The Pope was the most powerful man in Christendom, conversely Raphael and Bramante were the most exalted painter and architect. In preserving their reputation they wished to make a fool of the Florentine sculptor, who had never painted a fresco, suggesting to the Pope Michelangelo paint the ceiling of the Chapel which was cracking and last painted as the night sky with constellations. Raphael offered his assistants to help Michelangelo prepare the ceiling and build the scaffolding whom he refused and built his own scaffolding. He also locked the door afraid Raphael might learn his methods only permitting Julius II to view his work. What is little known, Michelangelo's comrade and close friend, Giorgio Vasari, historian/fresco painter, set the standard for Fresco painting and was his advisor.

What chance did Michelangelo have in transforming this cracked barrel vault into a successful design on three levels. His romantic illusion was to tell the story of the Judeo Christian era as it ascending into the Temple that is the Glory of God. On the first level are the lunettes depicting the ancestors of Christ placed below the impediment that supported a balustrade of pilasters that joined the transverse beams, which delineate a series of framed rectangles from which to house the Biblical narratives. Eliminating the barrel vault for rectangular chauffers making up the Creation Narratives and allowing the light effect to descend from the heavens into the apex of the ceiling highlighting the Creation narratives. They are then supported by the Prophets and Sibyls that surround the pilasters.

Artistically, the lunettes are in shadow because it divides the sky plane from the ground plane, but symbolically this separates heaven from earth where the ancestors are in the darkened past. The next level upwards are the prophets and sibyls which are in cross light projecting strong cast shadows to create three-dimensionality and

make the transition into the final plane. As the effect ascends to the central narratives of the ceiling, they are in full light highlighting the power and glory of the central effect.

A revealing fact that Michelangelo took three days to complete the lunette freehand without cartoons( there are no cartoons for the lunettes signifies their lesser importance). The lunettes measured 15 square meters . This calculates to five square meters a day (giornata), when the custom of fresco painters was to paint approximately half a square meter a day. How is it possible that Michelangelo painted ten times faster than Raphael? This mystery can be resolved by Michelangelo use of a stylistic innovation to hasten his work, at the same time unifying his masterpiece in a focused effect. By reversing the oil painting process his new system system was simple but revolutionary.

Traditional oil painting starts with the artist drawing out then inking the drawing, where in fresco, he pounces black carbon from a cartoon onto the wet plaster to establish the drawing. The difference is, in oil painting, one first paints the darks and the lights creating the forms and when it dries the artist glazes the local color on the corresponding forms, two different procedures where essentially the color is painted last. However Michelangelo invented a shortcut to this rule using only a 'bon fresco' as an underpainting .

At this moment Michelangelo was transforming art from Mannerism to the Baroque style that was well suited for large compositions. Mannerism, 'a la maniera' literally means finish as the hand goes and is only suited for small areas that are finished in one sitting.

Fresco allows six to eight hours of working time before the lime sets up and as invention is the mother of necessity he was forced to use his time sparingly. After the drawing was pounced and set in lime he reversed the traditional oil process and used dark and light shades of color to create his form covering large areas coming back 'a seco' with a lamp black

glaze to strengthen the shadow and unify the form. In the traditional fresco process, where unlike oil painting you can paint shadow and light in one stroke, in fresco first the color goes on and then the shadow is cross-hatched in thin brown or black strokes to look like shadow allowing enough time to finish a section all at once in *bouo fresco* ( what Collalucci was assuming). Contrarily Michelangelo simply divided the core shadow between light and dark by painting a darker shadow color on the dark side and lighter color on the light side in *buon fresco*. Clear examples are when Michelangelo painted pants, shirt or drapery light yellow on the lighted surface and cool violet on the dark side, or light blue and violet , yellow contrasted by green following the core shadow of the anatomy very often juxtaposing complementary colors . This is the extent of '*bouo fresco*'. The next step systematically followed with a lamp black glaze suspended in animal glue to unify the form days later . The opposite of oil painting where the color is first and the black and white was painted last. By breaking the rules, this invention allowed him to cover ten times the ground without the tedious labor of crosshatching each shadow plane.

What is left after the cleaning is only what was '*bouo fresco*' which brings up the disappearance of the lamp black glaze, '*la liquisima velatura*'. "This very dark, brown, glassy epidermis, consisting of layers of dust and fatty soot." as quoted by Colalucci. This soot layer was tested by a Gas Chromatography-Mass Spectrometry to identify fragments of molecules of organic material and results found it to be lampblack suspended in protein or sizing. The final irony is that the process for making lampblack pigment is to take the soot from a lamp, wash it, and dry it to make the pigment, which is what was interpreted as soot from years of burning lamps. A study was performed of the atmospheric patterns of the chapel to understand if pollution was effecting the surface and whether the soot from the lamps had dirtied the fresco surface so drastically. It was noted that some of the currents that circulating around the chapel effected the Fresco. The acidity of car pollution and particles of dust reached the surface, however, soot was too heavy and only reached four/fifths the height not contaminating the surface ('Study

of micro climate of the Sistine Chapel' by Prof. Dario Camuffo of the Istituto di Chimica e Tecnologia dei Radioelementi de Padua). This is important because the whole premise was that the soot on the surface came from the torches in lighting the chapel. Why was the soot concentrated in the shadow areas? Why was this carbon concentration not found on the white marble plaques mounted with the prophet's names or gold spindles? How could the soot from the lamps be so selective?

Colalucci admits there are 'a secco' overpaints and corrections of which there is evidence that he removed; fortunately there are extensive photographs of the ceiling before and after. AB 57 was developed by Professor Paulo Mora and his wife Laura Mora, chief conservators at Rome's Istituto Centrale del Restauro, for cleaning stone buildings. "*a mixed gelatinous solvent, consisting of a solution of ammonium bicarbonate, sodium bicarbonate, Desogen (a surf-actant and anti-fungal agent), carboxymethylcellulose (a thixotropic gel agent).*" AB-57, was to be applied in a gel and left for three seconds then removed with distilled water and sponged off 3 times over two days. However, this solvent removes everything that isn't 'buon fresco' (color impregnated into the lime), including varnishes, retouches, and alterations. The effect of AB-57 is irreversible. In addition, there is no way to control solvent migration penetrating deeper into the layers reacting with the colors. This formulation AB-57 is extremely astringent leaving the surface coarse like sandpaper. With no plans for a final protective coating to protect the surface the fresco remains defenseless to the acid pollution of a modern city- no small concern resulting in 2013 viewers be vacuumed down before entering the Chapel.

The fallacy of the Colalucci team is they believed that Michelangelo painted only in 'buon fresco', where AB 57 would not harm 'boun fresco'. A simplistic assumption, disrespectful a long history of restorers without considering the retouches, corrections and 'la velatura' glazes. It had been stated by Armannini, the Florentine color supplier, that ultramarine blue was put on 'a secco' or glazed on later with animal glue as was the gold. Michelangelo had never painted fresco before and used as his technical advisor, his

compatriot and friend, Giorgio Vasari, who set the standard for fresco painting in the Renaissance. These 'a secco' techniques were acceptable as 'buon fresco' at the time, and Michelangelo used these techniques extensively, now lost in the cleaning and visible from older photographs.

Colalucci remains adamant that Michelangelo used only 'boun fresco' on the Sistine, although contradicting himself, he writes in "The Sistine Chapel" published Harmony Books, 1986 under "Michelangelo's Colors Rediscovered" pg 261.

"Technical and scientific research, concentrating primarily on an analysis of the pictorial technique, was undertaken on the 'Eleazar and Matthan' lunette. By the end of this investigation Michelangelo's use of 'boun fresco' was unequivocally vindicated. He had worked in the purest Florentine tradition, using only colors suitable for fresco, avoiding any that would have required application 'a secco'. He had worked 'a secco' to a minimal degree, on the ceiling, but not at all in the lunettes, not even to carry out small alterations as he worked. Nor had he painted the colored or uncolored glazes containing binder, that some had taken to be not the result of a restoration, as in the fact they are, but the later, improvised corrections of Michelangelo himself."

*Countless attempts at cleaning and restoration seem to have been made, only four are actually accounted for first in 1566, 1824-25, 1904 and 1935-38.*

Colalucci admits to some 'a secco' treatment on the ceiling and then disregards the reports done on a 1935 to 1938 restoration saying, "the restoration of the 'intonaco' surface in the 1930's; these last were not encouraging, since they spoke of the bad technique of the frescoes, of their being finished off 'a secco', of their perhaps being 'varnished' with animal glue and pigment and of their being 'burned', a technical term meaning that the colour had been deleteriously affected by an excess of lime in the plaster or by its having dried out too quickly. However, these were subjective

impressions, often mutually contradictory, vitiated by the state of conservation of the frescoes at that time and by the considerable distance from which they were often observed." It was reported of 1938 Restoration that Michelangelo's "*overpaintings were lying quite brightly a secco on the fresco layer itself; these overpaintings proved themselves undoubtedly the painting of the Master himself.*"

The undeniable element is the passage of light throughout the ceiling and restorers must respect and understand the light effect without disturbing as it can quickly become an obvious distortion. A study of the light effect of the ceiling reveals that the dirty varnish layer was not even throughout its entirety. Some of the marble architecture was quite bright without a toned varnish revealing the lamp soot could not have been this selective. This restoration resembles modern archival restoration practice where the first concern is stripping clean the surface to the base under-painting then refilling and retouching in a reversible manner using aqueous pigments. This process lumps the original glazes, varnish and together as dirt.

The result of cleaning the ceiling across the board evenly in three second intervals is absurd in its subjectivity. In particular the removal of the shadow glaze from under the lunettes makes the ancestors as prominent as the central figures now that they were brought to light by the cleaning. Also the fact that the lunettes are on the vertical part of the wall before it turns into the barrel vault makes them closest to the viewer and most prominent. For this reason they were placed in shadow plane, where by bringing it to light the overall three-dimensionality of the work is destroyed

This ultimately is a desensitizing of the human condition faced with industrialism and technology. An accident waiting to happen, which begs the question? Can our icons be persevered and not tampered with? Can some objects remain intact, unchanged and unmoved; or is the human condition to meddle where nothing is sacred? Was not the Sistine Chapel one of these icons, timeless and an inspiration for all time? Why does the glory of Michelangelo have to be brought down

to a plebian aesthetic, where the Sistina is nothing more than a common decorative experience? Is this the new lens for our times?

I remember when I went up the scaffolding to witness the cleaning in progress at nose distance. This was in the beginning in 1981 when the headlines in Rome read 'Michelangelo the new colorist' ' A Fauvist painter'. How shocked I was to see the drastic contrast between the new restoration and the old familiar Michelangelo. How impressed I was to see how large the figures were. How could Michelangelo maintain his perspective over such a grand scale? I touched the surface and realized how abrasive it was, raw and scratchy like sandpaper without any protective coating. I knew then, it was the beginning of the end. What a crime and what price to pay.

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Detailed information and history of the restoration of the Sistine Chapel can be found in Art Watch' Periodicals on The Sistine Chapel Restorations , by Michael Daley.