

MICHELANGELO'S SISTINE CHAPEL CLEANED WITH EASYOFF
SCIENCE VRS. ART--- WHAT A PRICE TO PAY
By Peter Arguimbau

What irony that one of the greatest single handed artistic achievements had to be stripped clean by restorers using an oven cleaner for reasons of a miss guided analysis. This fracas is beyond imagination, what arrogance, single mindedness and carelessness. 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 just 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 Sistine is nothing more than a common decorative experience? Is this the new lens for our times?

The problem and or lesson is that our society has become fragmented, highly specialized experts in all fields isolated and not communicating with one another, The right hand not knowing what the left hand is doing. In the case of art, restorers do not have a discourse with artists, mostly because artists do not have credentials and are not worthy of their input which probably says a lot about artists and their skill set today. But now the time has come where art restoration has gone too far and the need for artists to speak out about cleaning off great works of art.

The nature of artists is they are romantics, where scientists are experimenters putting them at opposite ends of the human spectrum. Romantics see everything in a vale of beauty where scientists take things apart to try to understand how they work. One talks in abstractions and subjective fuzzy feelings and the other in mumbo-jumbo terms no one can understand. The object is not to change each other but to understand and respect each other's differences. Had restorers and artists conferred on the Sistine Chapel this devastation might have been averted. Despite protests from 'Art Watch' an organization to watch dog against restoration abuses, which sent a delegation headed by Frank Mason and James Beck to Rome to stop the restoration, but with no avail. Only the printing of 'Art Restoration' by Professor James Beck and Michael Daley, 1994, was a direct result of this event.

For centuries restorers have exercised the most extreme care to preserve and maintain intact Michelangelo's Sistine Ceiling. In over five hundred years since the creation of the ceiling, there has never been a period of more than ten years time that some restorative measures have been performed on the Sistine Chapel be it small or a complete cleaning. Salts and mildew were constantly forming over the fresco and it was repeatedly brushed and washed off. Over the centuries there have been five major cleanings with many over-paints, repairs and vanishings.

From the artist's point of view this intervention on the Sistine Ceiling has wrought havoc, drastically changing the effect of the mural stripping off the final varnishes and rendering the opera a cartoon. From the restorer's point of view, GianLuigi Colalucci, Director for Conservation at the Vatican and restorer of the Sistine Chapel, and the Vatican Director of the Laboratory for the Restoration of Pictures, Carlo Pietrangeli, it was a dirty mess and needed severe cleaning without regard for the final outcome.

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 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 past pope. With this success and great acclaim, Colalucci proposed to clean the Sistine. The solvent Colalucci used for his successful cleaning was AB-57. A soda reactant that is very similar to EasyOff, the oven cleaner. It is applied in a gel and left for three seconds then removed with distilled water three times. However, this solvent removes everything that isn't 'buon fresco' (or color impregnated into the lime), including varnishes, retouches, and alterations. AB-57 is irreversible and there maybe solvent migration penetrating deeper over time causing discoloration of the pigment. One thing is certain that this is a powerful lye solution that is extremely astringent leaving the surface course like sandpaper. With no plans for a final protective coating to protect the surface it remains exposed to the acid pollution of a modern city.

The scientific premise is that Michelangelo painted only in 'buon fresco', and this solvent would not harm fresco, a convenient assumption, but too simplistic when considering there were 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 as was the gold. These 'a secco' techniques were acceptable as 'buon fresco' at the time, and to what extreme Michelangelo used these techniques is now uncertain, however he used as his technical advisor among the most respected fresco painter in Florence setting the standard, his compatriot, Giorgio Vasari.

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."

This sounds more like a confession, now that all the evidence has been scrubbed off. Colalucci admits to some 'a secco' treatment on the ceiling. His certainty about not one single mistake was made on the lunettes strengthens the argument that there were 'a secco' applications on the ceiling.

“Vasari is explicit on the matter. '(Fresco) resists both atmosphere and water and will always withstand any kind of blow, but one has to be careful to avoid having to retouch it with colors bound in animal glue or egg yolk or resin or gum tragacanth, as many painters do; because, besides preventing the fresco from showing forth its natural luminosity, the colors become veiled by the retouching on top and in a short space of time become black. Therefore, let those who wish to paint on a wall work with courage in fresco and let them retouch 'a secco' because, besides being a weak and cowardly thing, it shortens the life of the painting.' “No such weakling was Michelangelo...”

Interestingly Colalucci 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.’ Ironically, one could say the same about Colalucci's subjective restoration.

The most important element is the passage of light throughout the ceiling and restorers must respect and understand the light effect without disturbing it or the painting falls into abstraction. An artistic and stylistic study of the light effect of the ceiling would have revealed that the dirty varnish layer was not even throughout its entirety. Some elements in the marble architecture were quite bright without tarnish. However modern restoration is more concerned with first stripping clean the surface to a neutral base which is most often the under-painting then starting the refill and retouch in an archival manner. This process disregards the original glazes, varnish or dirt because at this point they are indefinable; the tragedy of modern restoration for their lack of subtlety.

Michelangelo created the grandest of effects, transforming this modest barrel vault into a 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 placed below the artificial impediment supporting a balustrade of pilasters to support and join the transverse beams, which delineate a series of framed rectangles from which to house the Biblical narratives. The light effect descends from the heavens into the apex of the ceiling, as it highlights the Creation narratives, which are then supported by the Prophets and Sibyls that surround the pilasters holding up the biblical narratives. However under the impediment, the lunettes are under in deep shadow where the ancestors of Christ are depicted.

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 Divine Power, they are in full light highlighting the power and glory of the central effect.

The result of cleaning the ceiling across the board, 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. It is for these reason they were placed in shadow, where in light the overall three-dimensionality of the work is destroyed. It is easy to see how unwittingly removing some shadow can have a devastating effect.

Another equally disturbing issue is that the lunettes measured 15 square meters and that it took Michelangelo three days to complete a lunette freehand without cartoons (the fact that there are no cartoons for the lunettes signifies their lesser importance). 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 painting in the reverse of oil painting his system was simple but revolutionary.

In oil painting, to start the artist lays out an ink drawing, where in fresco, he pounces the cartoon onto the wet plaster. The difference is, in oil painting, one paints a black and white or sepia image and when it is dry the artist glazes the local color on the corresponding forms, where essentially the color is painted last. However, in Michelangelo's case, he shortcut this rule because in 'bon fresco' there is only six to eight hours of working time before the lime sets up and no possibility of glazing on top. What he achieved that was so remarkable was that he pounced the cartoon in the traditional manner, painted in the drawing over an extreme area, and then colored in the shapes using bright color in bon fresco within the allotted drying time without shading. With the added step of creating a core shadow line, that by cleverly juxtaposing a light hue of brilliant color next to its complementary darker hue in the shadow plane, he could unify the form when dry by glazing with a lampblack in glue size 'a secco la liquisima velatura'. A clearer example is when Michelangelo painted the pant leg bright yellow on the lighted surface and cool violet on the side following the core shadow of the anatomy as it turns waiting for the unifying lamp black glaze. Just the opposite of oil painting; the black and white was painted last.

This divergence from the standard of fresco painting is what enabled Michelangelo to paint so swiftly because he by passed the burdensome problem of crosshatching to create shadow.

Which brings up the lamp black glaze or '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 Instituto 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. This leads to a number of questions. Why after analysis was there so much carbon or soot in the protein glaze (hide glue)? 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.

I remember when I first went up the scaffolding to see the cleaning in progress. 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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