

Formatt-Hitech filters: an appreciation

[<https://www.formatt-hitech.com/>]



Firecrest IRND # 0.6 MC

I recently had the pleasure to try a set of the wonderful Formatt¹ filters, as part of both a research on digital cinematography issues I develop as an academic in my field, and for a particular feature film project I am involved with as a cinematographer. These days digital cinema camera sensors have totally fulfilled the quest of "definition", while dynamic range has surpassed, at least with a new style and attitude, the DR reached by negative film. There are lenses from any era available to be used on different mounts though the various adaptors, while all well known companies produce new versions of their classics and there is also room for newcomers, with different more or less photogenic kits. An underappreciated tool, the various remote follow-focus systems, permit precision focusing on lenses not-designed for cinematic use, and it truly is a kaleidoscopic era for motion-picture "imaging" as is this new expression, enigmatic and bizarre as well...



Supersoft Gold # 2



Formatt Pola-screen

Our main tools for us “traditional” cinematographers, who moved up the ladder either through film-school or as apprentices to old masters (or both), remain cameras and lenses along with a new approach to lighting, as sensitivities certainly exploded at unimaginable levels only a few years ago, and we all try to find a new more minimalist approach by subtracting rather than adding light.

So where does our personal touch go!? There are surely different approaches on that matter, the most “politically-correct” being, that motion picture photography supports the narrative and shouldn’t single out a particular style that “promotes” the image over the story. Of course that is correct, but it is also true that the average “movie” we will watch on the traditional big screen, in a (hopefully) dark local theater, or on that larger or smaller screen at home or in our desk, features some superlative imagery courtesy of an older (for instance Roger Deakins, *No country for old men*, 2007, Darius Khondji, *Amour*, 2013) or younger master, (like the superlative cinematography by my younger colleagues Nicholas Karakatsanis for *The drop*, 2014 & Mihai Mălaimare, Jr, for *The master*, 2012): those are stellar performances by virtuosi DoP’s, who not only have a personal approach in interpreting visually any given cinematic narrative, but what distinguishes them is a more or less unique style achieved by their use and most of all their choices, in combining all the tools available, in order to support the audience’s experience of any motion picture they are involved with.

In my opinion, apart from lighting which is our ultimate tool, it is the use of filters (or even their absence) that, now more than any other cinema’s era, remains a personal and complicated thought process as well, in the pictorial labyrinth that leads to the totality of the images we create.



Clear Supermist # 1/4

Since I do not belong to the “fix it in post” approach, in cinema terms at least, something that I indulge though to in the well-known environment of Lightroom when I “relax” (!?) manipulating the Raw-stills I take for my personal “therapeutical” reasons, in my main field, cinematography that is, I still remain a purist. I have used all the main brands offered traditionally in cinema matters and I admit that I always had a weakness for the first filters I purchased upon my mentor’s recommendation, the late Louis Horvath², after graduating from the Cinematography program of the American Film Institute, a quarter of century ago, manufactured by one of the oldest companies in cinema, the legendary *Harrison & Harrison*. But things change and filters have evolved as well, plus the new digital sensors demand different approaches, just like film stocks did.



Supersoft Gold # 1

This long intro focuses though on the personal approach and on purely motion picture imaging; it is at least an individualistic interpretation in words (and some pictures as well), of what an image consists of, even more so combined with different flavor of glass as offered on lenses by Zeiss, Cooke, Angénieux, Leica, Canon, Fujinon, Kowa and my personal favorites the unique Optar-Illuminas. On my first approach in trying to interpret the pictorial qualities offered by the new-line of Formatt-Hitech filters, for both practical as well as for as neutral as possible and pure imagery reasons, I used a medium long-lens, the "portrait" focal-length offered by Sigma in their Art-series, the excellent 60mm: this a truly sharp little lens, a well known "secret" among m4/3 cognoscenti. I chose for similar reasons the little Blackmagic-Pocket camera (super-16mm sensor), whose absence of an optical low-pass filter provides very sharp image-files, ideal for such a test, while all shooting took place under natural/ambient side lighting as provided by early afternoon.



Supersoft Gold # 1 & 2

I shot various charts, but the main images that will accompany this appreciation, will consist of frame grabs not of human skin-tones, but of "skin-tones" offered by two dolls: an early sixties toy girl-photographer of a doll, metal-body with plastic face almost-tan with the patina offered by half a century of smoking-environment, and a terracotta-one, bust-size, with a particular reflective pattern supported by the glossy fixing material used to preserve its colors. Both are indispensable tools for my personal tests, since they represent even more difficult conditions than the "normal" skin-tone, enhanced of course in a purely cinematic environment by professional make-up. This way my approach is of course personal, it retains however a more universal interpretation. Original files were shot in Log and no color correction was applied apart from a "normal" Rec-709 LUT. The other pictures in this document were shot through a Fujinon lens on an XE-2 camera body.

The filters tested emphasized on diffusion issues, however the brand-new line of IRND-Firecrest series was certainly a revelation to both me and my colorist Alex Kapidakis at Authorwave (www.authorwave.com), where we viewed the material in Davinci Resolve through the superlative Flanders-monitor: of course I was aware of all the tests uploaded throughout the last years, that have indicated that Firecrest filters provide the most consistent and accurate IR-correction, in combination with various digital sensors, but it's different when one discovers it personally... Really the cleanness in the image-file provided, both in warm and skin-tone colors, plus an incredible rendition of blacks, is a revelation! Kudos to Formatt for such a technical feat! The Polarizer filter was impressive as well, however (on certain digital sensors at least), tests showed that it does not provide the radical IR cleanness in the image as the Firecrest series do; it should be used in combination when required. All other frame grabs of the diffusion filters included, were shot in combination with the Firecrest-IRND's.



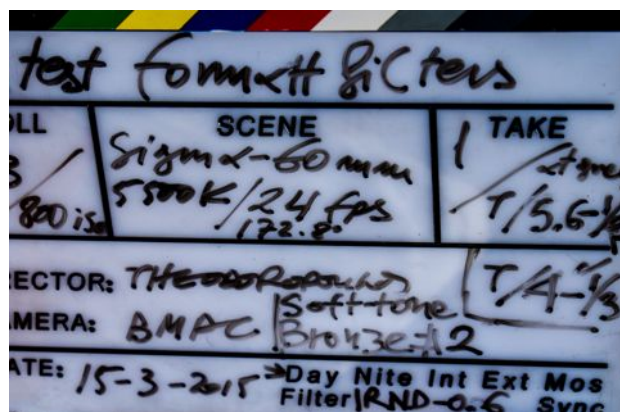
Firecrest IRND # 0.6 MC

The diffusion series tested, consisted of nine filters including: Clear Supermist # 1/8, 1/4 & 1/2, Soft-effect #1 & 2, Soft-tone Bronze #1 & 2, Supersoft-Gold #1 & 2.



Clear Supermist # 1/2

Packaging is totally secure, with a fine foam-frame in a large plastic case, although a bit large once used to the old-style filter pouches. Glass quality is indeed impressive and feels precious with fine contours. Of course the initial approach is to really look through a filter. How deceptive though: I do not believe that the human eye (not mine at least) is trained to interpret the cinematic output of any given diffusion filter, unless one is used for decades. More so in the case of Formatts, whose either subtle or relatively heavy "touch", is truly unique in their approach. For instance through the eye, I felt that the Supersoft Golds almost "anamorphic" oval lenslet pattern, was somehow cruel the way it seemed engraved-like on the filter's (inner) surface. On viewing the actual images captured though, it was a revelation: not only the diffusion was subtle, but also those gold particles scattered though the filter gave the image a strange warm brightness that totally blew us away! This is certainly an incredible filter! My only comment would be that between the # 1 & 2 densities, somehow a # 1½ density is needed as well.





The surface of Formatt Soft-tone bronze # 2

The opposite effect, through an incredibly subtle diffusion-approach, that of almost providing a cooler tone, is offered by the "mysterious" Soft-tone Bronze: I admit that this is (so far) my personal preference, more so because the filtering effect is so delicate as far as diffusion goes, plus the "colorless" touch by the bronze particles, provides that cool toning-down of colors; here I should add that contrary to the possible absence of an in-between density as in the Supersoft-Gold series, the Soft-tone Bronze series could benefit from a heavier density as well, such as # 3 & 4.



Soft-tone Bronze # 1

The Clear Supermist (densities # 1/8, 1/4 & 1/2) and the Soft-effect (#1 & 2), are variations of a more "traditional" approach to diffusion as offered by other companies as well. That does not mean that they are not valuable: on the contrary. The diffusion effect offered in both cases is both subtle and delicate, while the densities we tried are indeed fine as graduations, although a slight question mark could be posed on the level of an intermediate possibility between the # 1 & 2 densities, regarding the Soft-effect. We were really impressed by the finesse offered through the use of the Clear Supermist series: the sharpness is still there, while the patina offered does not provide a cruel halo around highlights, rather a softening fall-off between whites and blacks. The Soft-effect on the other hand, provides a less "drastic" approach and increases in our opinion the photogenic possibilities of the subject matter, while carefully hiding extreme reflections.



Soft-tone Bronze # 1

This is really the beginning of our experience, as (diffusion) filter use is a slow and delicate learning process, to be applied in fine doses, so as not to overwhelm the image quality designed through the use of lighting and particular lenses as mentioned, but what we appreciated the most and this is truly the most important factor, is the finesse which along with a superlative optical build quality, establishes Formatt filters as a major pictorial tool for motion picture image creation.

Dimitris Theodoropoulos

Director of Photography, GSC

Associate Professor, Aristotle University of Thessaloniki

www.theodoropoulos.info

<http://www.film.auth.gr/en>

¹ With the kind assistance of James Stamp, Head of Sales, Formatt-Hitech Ltd, a veritable connoisseur in terms of image making, and a certified Fujiholic as well (<http://www.fujiholics.com/home#welcome>).

² <http://www.imdb.com/name/nm0395761/>. The late cinematographer Louis-Lajos-Horvath, faculty member at the AFI (1990-98), was a (younger generation) Hungarian expatriate just like legendary DoP's Lazlo Kovacs & Vilmos Zsigmond. A poetic figure, with a deep artistic knowledge combined with a unique technique, inspired all his students creatively in lighting approaches. One of his most unorthodox (lighting) diffusion techniques was the use of bed-sheets instead of "professional" diffusion material such as frost or grid-cloth etc.



Soft effect # 2