

HEAVENLY BODIES, William A. Ewing, in *Heavenly Bodies*, 2005, Ed Thinking Prints, Bruxelles

Science, we all know, is objective, while art is subjective. Pierre Radisic's hauntingly beautiful "heavenly" bodies fall clearly into the latter slot. Or so it would seem. Stars and their clusters made from beauty marks, streaking comets from scars or bodily creases, spiral galaxies from navels, inchoate nebulae from blemishes -- surely we are in the realm of the spirit and the imagination, far indeed from cold and calculating scientific enterprise.

But the dictionary definitions of *astrology* and *astronomy* reduce this distance--uncomfortably so; astrology refers to "the study of the movements and the relative positions of celestial bodies and their supposed influence on human affairs", while astronomy is defined as "the science of celestial bodies, space and the physical universe". As Radisic evidently has nothing to say about the "supposed influence of heavenly bodies on human affairs" and *much* to say about "bodies, space and the physical universe", he would seem to be more appropriately classed in the scientific camp. Or even better, in *astrophysics*, which is, after all, concerned with "the physical nature of celestial bodies."

Preposterous? Let us take a quick look at that cool, objective science and in particular that hybrid of scientific attitude and observant technology which is summarized in the practice known as 'astrophotography'. Surely this serious discipline should be located at opposite ends of the art-science continuum from Radisic's whimsies.

On the contrary, from the beginning our best scientific minds have felt the need to indulge their artistic impulses. Fictions run rampant. In the 1870s, when the sensitivity of film was not sufficiently developed to image the moon in sharp detail, a plaster model was made following drawings and photographs. This model was then photographed, the results being published in 1874 under the title *The Moon Considered as a World, a Planet and a Satellite*. No wonder that more than one hundred years later otherwise sane individuals have convinced themselves that the manned expeditions to the moon were fabricated in a Hollywood Studio!

Manipulation abounds in astrophotography. Our photographer-scientists modify the intensity of the light in their imagery, the color of astronomical bodies, and even the shape and size of the objects in question. They can make a star or a galaxy appear central, or marginal. They can obliterate distracting 'information' or exaggerate patterns and forms.

When photographs were finally made of celestial objects that were invisible to the eye, in the late 19th century (hence without the colors of visible light), false colors were added, partly in order to distinguish objects but also for aesthetic purposes. Today, photographs of nebulae now abound in the press not because of their ostensible importance to science, but for their capacity to dazzle the public with their coloration. Color is usually of no interest to scientists as black and white plates taken of each portion of the spectrum are sufficient, but it certainly impresses the public, and an enraptured public is more apt to unloose the purse-strings of sponsors (who are themselves not immune to breathtaking imagery). Where photographs are not deemed spectacular enough, or because they simply do not exist, photorealistic drawings are provided, the captions being sufficiently vague so that the public is fooled into thinking they bare looking at factual

photographys, traveling along on that probe over Jupiter or sailing through the clouds of Titan. And when the first photographs from the surface of Mars appeared in 1975, showing a pink sky (colored by the planet's dust), the picture editors simply changed it to a more acceptable blue. Indeed, astronomers often admit that they choose photographs for their publications because of their beauty or their capacity to trigger emotional responses.

By no means, however, is all the fiction purposefully deceitful. In *From the Atom to Infinity: Beyond the Visible*, authors D. Malin and K. Roucoux explain that a galaxy 400 light years from us hides a quasar 8 billion years away; the former galaxy acts as a lens, reflecting the light of the quasar in such a way as create four mirror images of it in the sky. Nature provides plenty of its own visual deceptions, and being in the front line astrophotographers are often the first to be fooled.

Astrophotographers are also forced to compensate for the limitations of films and cameras with creative interventions, imagining color as it would probably be (for instance when astronomic objects emit their light in the form of emission lines which do not correspond to the maximum sensitivity of colour films).

Lastly, with the indirect photography practiced today (photoelectric and electronic), light is transformed into electrical impulses and computerized. Because a pixel (Picture Element) can register thousands of light levels, far more than a grain of silver can do, the resolution is substantially greater. This new imaging technology opens the door to a new world, facile and manipulable, as any moderately competent photoshopkeeper knows.

Paradoxically, Radisic is happier sticking to the facts. These are real birthmarks and scars, real navels, real creases. The constellations are real, too. He adds no stars, he respects their shapes. His studies of bodies are documents: these are real women, carefully posed and truthfully photographed, i.e., unretouched. His atlas is as good a guide as any for a layperson out to grasp the cartography of the heavens. Moreover, Radisic's cosmos has a marvelous and satisfying symmetry: north and south (constellations), positive and negative (prints or lights and dark matter*), male and female (the subjects and their observer), classic photography (the nude) and computer manipulated imagery (the designated constellations), sacred and profane, erotic and mythic (Note how the negative image has a curious way of desexualizing the subject; the flesh disappears, as well as the human scale; what is left is a being of mythic substance and godly scale). But the nudes are also worthy of admiration in their own right, always interesting as images, always resolved as images, clever solutions to the 'problem' of discovering this or that constellation. To the pairs of poles cited -- dare we add -- art and science?

Considering the deceptions and esthetic impulses of the scientists it is ironic that, on principle, Radisic never cheats. In the final analysis, we can confidently claim that his view of the cosmos is therefore as rigorous and cosmically correct as any astronomer's proposition.

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| <p>*Note We are learning that our universe is for the most part composed of dark matter, or material we can not and will never 'see' with our eyes—90% of the universe, in fact. The negative of the universe may well turn out more interesting than the positive.</p> |
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I wish to acknowledge the research of one of my students at the University of Geneva, Marie Parvex, who drew my attention to the question of reality and fiction in astrophotography.