

REVIEW: Two books on ancient Perspective illustration

Jim Barnes, Architect -- 2nd August 2011

Alan M.G. Little; *Roman Perspective Painting and the Ancient Stage*, 1971, ~71 pages.
John White; *The Birth and Rebirth of Pictorial Space*, 1957, Chapter XVI, 36 pages.

These are two good books by two very fine researchers; and I recommend them for the study of ancient Greek and Roman perspective illustration.

Alan M.G. Little's career goes back to the 1930s when he received grant funding to research ancient Greek and Roman theater while serving on Harvard's faculty. His lifetime study in this specialty led to this 1971 publication on Roman painting. Little starts by explaining that prior archaeological expertise sorted the ancient Roman frescos of Pompeii into four epochs, called "Styles". His book goes on to provide compelling reason to believe that certain Roman frescos, especially during the Second Style epoch, are reproductions of ancient theatrical stage sets. Citing Plutarch's biography of Alcibiades (c. 450-404 B.C.), Little recites the historical account of theater scenery first being transplanted onto the walls of ancient Athenian homes. We have no surviving Greek wall paintings today, but we know that Roman murals were copied repetitively, the same picture often copied in several places, even among the tiny number of Roman specimens surviving to our modern age. Greek stage set design similarly followed a conservative tradition; a single format was used repeatedly; while only details were varied. Quoting ancient sources, such as Plato's *Republic* (c. 380 B.C.), Alan Little shows how the archetypal elements of Greek stage sets appear in Roman murals. Pompeian Second Style murals are dated to the 1st century B.C., the period when Greek theater was imported to Rome. Though Little does not risk explicitly stating such, it is easy for a reader to leap to the startling conclusion that when we look at the Pompeian Second Style reproductions of stage scenery on ancient Roman walls (or Little's reconstructions), it is possible that we are looking at the ancient Greek scenography described by Vitruvius in his treatise *On Architecture* (c. 20 AD). Analogous to the manner in which temple architecture of ancient Rome approximates earlier Greek prototypes, these Roman murals might closely approximate the Greek theater scenography whose invention Vitruvius credits to Agatharchus of Samos (c. 500 B.C.). And, here, today, we may still view the ancient perspective geometry explained by Anaxagoras and Democritus (c. 430) in their lost treatise, mentioned by Vitruvius. Wow.

With one exception, the perspective construction lines which Alan Little's book superimposes over Second Style Pompeian murals converge to a single point – what we today call "one-point perspective". There are some minor discrepancies attributable to artistic error, but there is no reasonable doubt that mural painters of ancient Pompeii utilized a drawing system with a central construction point (what we now call the "vanishing point" for lines perpendicular to the "picture plane"). [In that one exception, two centralized vanishing points are stacked vertically, separately articulating two storeys of a single building.] The ancient employment of a central construction point is verified by John White's book, wherein Vitruvius' text is analyzed in elaborate detail. White concludes that Vitruvius' short description of Greek scenography portrays "one-point perspective". Alan Little's *Preface* of 1971 thanks art historian John White for manuscript review; therefore, reading White's *Chapter XVI*, about ancient Greek and Roman art, is helpful to understanding Little's reasoning about Roman murals. It was my good luck, coincidentally, to buy both books at the same time.

You may perhaps recall last summer I emailed a little seven-page article which I titled: *Thoughts About ZEEMAN'S PARADOX*. Zeeman's Paradox is the principle whereby perspective illustrations constructed as the view seen from a single unique position tend to appear optically correct even when viewed anywhere within a wide range of angles surrounding their original line of sight -- a principle of human vision easily observed, but having no logical geometrical rationalization. I wondered why perspective illustrations were ever invented, if one could not logically expect them to look realistic except from a single unique point. I hypothesized that the illustrations generated by a "point of view" moving along a line, which Kevin Forseth described in his book *Glide Projection* (1984), might perhaps better explain the perspective system Vitruvius attributes to stage set design for the theater of ancient democratic Athens (whose seating I picture as being arrayed in steep semi-circular tiers). In hopes of finding sympathy for that hypothesis, I bought these two books to read on my summer vacation. Neither book supports my conjecture.

"Glide projection" is not a geometrical concept that either book considers in the exact sense that Forseth formulates it; yet I was fascinated to find White's text speculating that Roman artists might have purposely arranged their "vanishing points" along a linear axis, a perspective format which he calls, for short, "vanishing axis". The similarity of White's "vanishing axis" to Forseth's "glide projection" is obvious. I was also interested to discover that my conjecture that ancient Greek scenography, as described by Vitruvius, might have used a "vanishing axis" perspective system is a hypothesis that had been previously raised; but White explicitly rejects it. His footnotes citing earlier advocates of this conjecture include the names of Erwin Panofsky and Alan Little (in a 1937 journal article). White strongly believes that Vitruvius' text refers to "one-point perspective" and that "vanishing axis" perspective developed later, after the Pompeii's Second Style. He theorizes that "vanishing axis" paintings might have been either merely sloppy neglect or conscious attempts to approximate with straight-line-segments the curving geometry of the flattened images of spherical picture-plane projection, the sort of perspective methodology aptly described by Flocon and Barre in *Curvilinear Perspective* (1968 French, 1987 English translation). Whether or not future scholarship reconsiders the perspective structure Vitruvius was trying to describe as a variant of some "glide projection" or "vanishing axis" system, Forseth's "glide projection" still merits viable hope of rediscovering precise geometric meaning for what John White calls 'the roving eye' of ancient Roman artists of the Third and Fourth Style Pompeian wall paintings.

Frankly, I am very impressed with the reasoning and evidence by which Alan M.G. Little's and John White's books refute my guesswork. That one of my own hypotheses might turn out to be false is, unfortunately, nothing novel -- that's why I do research. Yet, even then I am still left with my original quandary: why would an artist trying to paint flat scenery in a manner that would look realistic to a semicircular-seated audience invent a one-point perspective system, without having any logical means to predict that the wide-angle realism he sought would be provided only by the illogical principle of "Zeeman's Paradox"? It's too much mental gyration, too great a leap. I feel like a significant step is still missing. If such turned out to be true, it would come as no big surprise; in the world of ancient Greek and Roman painting it is already well known that virtually everything is long lost, or missing.

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