Professor Hanke’s Atelier: Reflections on the “Bullpen” and Raphael’s Workshop

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About the series

The Studies in Applied Economics series is under the general direction of Professor Steve H. Hanke, Co-Director of the Institute for Applied Economics, Global Health and Study of Business Enterprise (hanke@jhu.edu).

About the author

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Summary

This paper first examines the teaching methods of Professor Steve H. Hanke, Co-Director of the Institute for Applied Economics, Global Health and the Study of Business Enterprise. Professor Hanke’s teaching methods are then compared to Raphael’s instruction of his famous atelier.
**The Bullpen Model**

In Professor Hanke's experience, he has found that the one thing a professor can do is to introduce a student to the skills required to learn. This is the teaching methodology he implements in training his Bullpen students. Hanke begins a student’s training by stressing the most valuable and basic skills: writing and research methods.

Professor Hanke demands a great deal of high-quality writing – research memos, draft blogs, working papers published in his Studies in Applied Economics working paper series. He believes that there can be no thinking if there is not writing. As Michael Bloomberg said in his 2014 commencement speech address to Harvard University: “a university’s obligation is not to teach students what to think but to teach students how to think.”

Hanke wants to teach students how to think, so he demands a lot of their writing. Those demands relate to his strict adherence to replication. All scientific work must be replicable, so form is important for Professor Hanke. Full and exact citations are demanded, or he will not read a student's work.

Professor Hanke is also demanding when it comes to data. He prefers primary instead of secondary data. He stresses the pitfalls associated with data, and his favorite book on that topic is Oskar Morgenstern’s *On the Accuracy of Economic Observations*. No one in the Bullpen was surprised to learn that Professor Hanke was a member of the Charter Council of the Society of Economic Measurement. A reproduction of Alexis de Tocqueville hangs above Professor Hanke’s desk. Not surprising. “Tocqueville’s method – both when it came to the study of the economy and the rest of society – was, as he put it, to generate “ideas” by a close study of the “facts.”

In his office full of economic volumes, three books are especially prominent on Professor Hanke’s desk: Mark Blaug’s *Famous Figures and Diagrams in Economics*, Nathan Yau’s *Data Points: Visualization That Means Something*, and

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Professor Hanke spends a great deal of time with the collection of primary data. He believes that this is a major part of good science and assists in the formulation of hypotheses. His Johns Hopkins/Cato Institute Troubled Currencies Project (TCP) focuses on the collection and analysis of primary data.\(^7\) A group within the Bullpen serves as researchers on the TCP. Another group in the Bullpen conducts research on currency boards. A big part of that work over the years has been to collect and digitize the balance sheets and income statements for every currency board that has ever existed. Professor Hanke and Dr. Kurt Schuler, a former Hopkins post-doctoral fellow and long-time Hanke collaborator, direct that research.

After his students master the basics, Professor Hanke throws young students into deep water to see if they can swim. This follows his firm belief in the 5 P’s: prior preparation prevents poor performance. After Bloomberg certification and many preparatory memos, students are thrust into a research team and are expected to carry their own weight. If they make the cut, these students produce high quality and relevant material, such as the Troubled Currencies Project. In training the Bullpen, Hanke’s primary purpose is to teach new dogs old tricks.

**Conscious Discovery**

Professor and Mrs. Hanke frequent the museums of Paris and Florence. In October of 2012, Professor Hanke visited an exhibition at the Louvre entitled “Raphael in Rome, The Mature Years.” Professor and Mrs. Hanke also visited the Musée Jacquemart-André in December of 2014 and viewed an exhibition of Perugino, Raphael’s master. While listening to Mrs. Hanke remark on the impressive structure of Raphael's workshop, Professor Hanke made the conscious connection between his training of the Bullpen and Raphael’s training of his *atelier*. Hanke’s conscious discovery prompted further investigation on Raphael’s workshop.

**Raphael’s Workshop**

Arguably one of the best painters and architects of all time, Raphael Sanzio da Urbino (b. 1483 – d. April 6, 1520) and his distinguished workshop created

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masterpieces such as *The School of Athens* and the Chigi Chapel. As was tradition during the Renaissance period, Raphael employed a workshop of painters to assist him with his many commissions. Raphael’s workshop, however, far surpassed the size and capabilities of his contemporaries, such as Michelangelo. Despite managing a workshop of more than fifty painters, Raphael’s works maintained unparalleled quality.

Raphael’s beginnings with his teacher, Perugino, offer insight into his workshop. Perugino greatly influenced Raphael’s early works. As an assistant of Perugino, Raphael gained experience in a large workshop. Though stylistically inspired by his teacher, Raphael noted inefficiencies in the organization of the workshop. Perugino maintained a high level of quality only by sacrificing inventiveness; he frequently repeated drawings and paintings with slight variations. This repetition was a consequence of small workshops, which were unable to supply enough original compositions to satisfy a large number of commissions. Raphael despised this unoriginality; a large workshop allowed Raphael to be more creative.

John Shearman’s article in *The Art Institute of Chicago* was consulted for a comprehensive examination of Raphael’s *atelier*: each of Raphael’s masterpieces underwent an extensive preparatory process. First, Raphael created composition sketches to show the arrangement of figures. He made ‘offsets’ or rough copies of these sketches as insurance. Then, Raphael would arrange a real life model of the scene, called a life study, to check the positioning of heads, hands, and costumes. After repositioning and redrawing the scene up to two hundred times, a final draft was produced. Raphael preferred to do all of these steps by himself.

When the Pope called Raphael to Rome on commission, extreme pressure and a variety of commissions required Raphael to create a workshop of his own. Raphael prized his own ingenuity, but by 1510 his works were so popular in Rome that a

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13 Shearman 44.
14 Shearman 48.
workshop was necessary.\textsuperscript{15} Raphael’s workshop consisted of two main assistants, Giulio Romano and Gianfrancesco Penni, and many visiting artists.\textsuperscript{16} Raphael delegated the more laborious work to the assistants, but always created the initial idea and produced the final draft. Tidy drafts were composed based on Raphael’s original idea, sketched by more expert assistants, and then edited by Raphael.\textsuperscript{17}

Raphael’s apprentices underwent extensive training before they were permitted to assist in the production of the artwork. An apprentice would spend his first year drawing on tablets. The next six years of his apprenticeship would be spent familiarizing himself with materials. This apprentice would be trained in the making of brushes, preparation of glazes, production of the canvas, etc. For his final six years as an apprentice, the student learned colors. These apprentices were constantly drawing or painting during their training and were not permitted holidays or weekends.

Inconsistencies in quality occurred frequently in the beginning years of the workshop, when Raphael delegated too much responsibility to his assistants.\textsuperscript{18} Raphael became uninvolved and removed from the planning stages. To improve the quality, Raphael began to edit the work of his assistants after every draft.\textsuperscript{19} This constant communication and editing of assistant’s work limited the number of commissions Raphael could undertake, but created better quality artwork.

Vasari, the first and most thorough art historian of the Renaissance, is unable to spot discrepancies between master and workshop in many of Raphael’s paintings and drawings.\textsuperscript{20} Vasari commends Raphael’s original designs and ability to supervise everything. Raphael maintained constant communication with the workshop, frequently mediated arguments within the workshop and therefore did not compromise the quality or quantity of his works. Raphael sought to teach and inspire a new generation of artists through his workshop, creating a mutually beneficial relationship between master and assistant. Although his was the largest workshop ever run, Raphael maintained an unprecedented originality and quality. The success of Raphael’s workshop is highlighted by the success of his assistants after his death. Giulio Romano and Gianfrancesco Penni were Raphael's most highly commended assistants; they frequently created the last preparatory drafts of paintings and drawings, which were then given to Raphael to finalize.\textsuperscript{21}

\textsuperscript{16} Shearman 42. Vasari Part 3, pg. 2.  
\textsuperscript{17} Shearman 49.  
\textsuperscript{18} Shearman 52.  
\textsuperscript{19} Shearman 52.  
\textsuperscript{20} Vasari Part 1, pg. 1  
\textsuperscript{21} Shearman 49, 52.
Raphael’s premature death, Romano and Penni inherited Raphael’s workshop.\(^2\) Romano completed many commissions with the workshop before travelling to Mantua. In Mantua, Romano developed a new style of painting, Mannerism. Romano came to be one of the most culturally prominent artists in the city.\(^3\) Penni was commissioned by the Pope and helped to decorate the Vatican.\(^4\) Both assistants gained expertise and wisdom from their years in Raphael’s workshop, and became incredibly successful after his death.

**A Parallel to the Bullpen**

After thorough research, Professor Hanke’s method of training clearly does mimic that of Raphael’s. Raphael not only created excellent art, but also prepared his assistants to become individual artists by cultivating their skills and stressing the importance of individuality. In this way, the ‘Bullpen’ is the modern equivalent of Raphael’s workshop.

Professor Hanke identifies the majority of the research topics before presenting them to his students. He is constantly mindful of his intended final product. While Hanke is the source of the original ideas, the Bullpen members research and create multiple drafts of various projects. Professor Hanke reviews these drafts and assimilates them to his own writing. Professor Hanke is in constant communication with the members of the Bullpen, and frequently expects progress reports. The Bullpen demands originality without sacrificing quality. This type of economic research also provides students with real-life experience in the field. Working in the Bullpen develops a skill set applicable to many careers. Professor Hanke instills a level of quality and commitment in each of his students that serves them forever.

Both Raphael’s workshop and Hanke’s Bullpen result in an interdependent relationship between teacher and student.

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\(^2\) Vasari Part 3, pg. 2.
