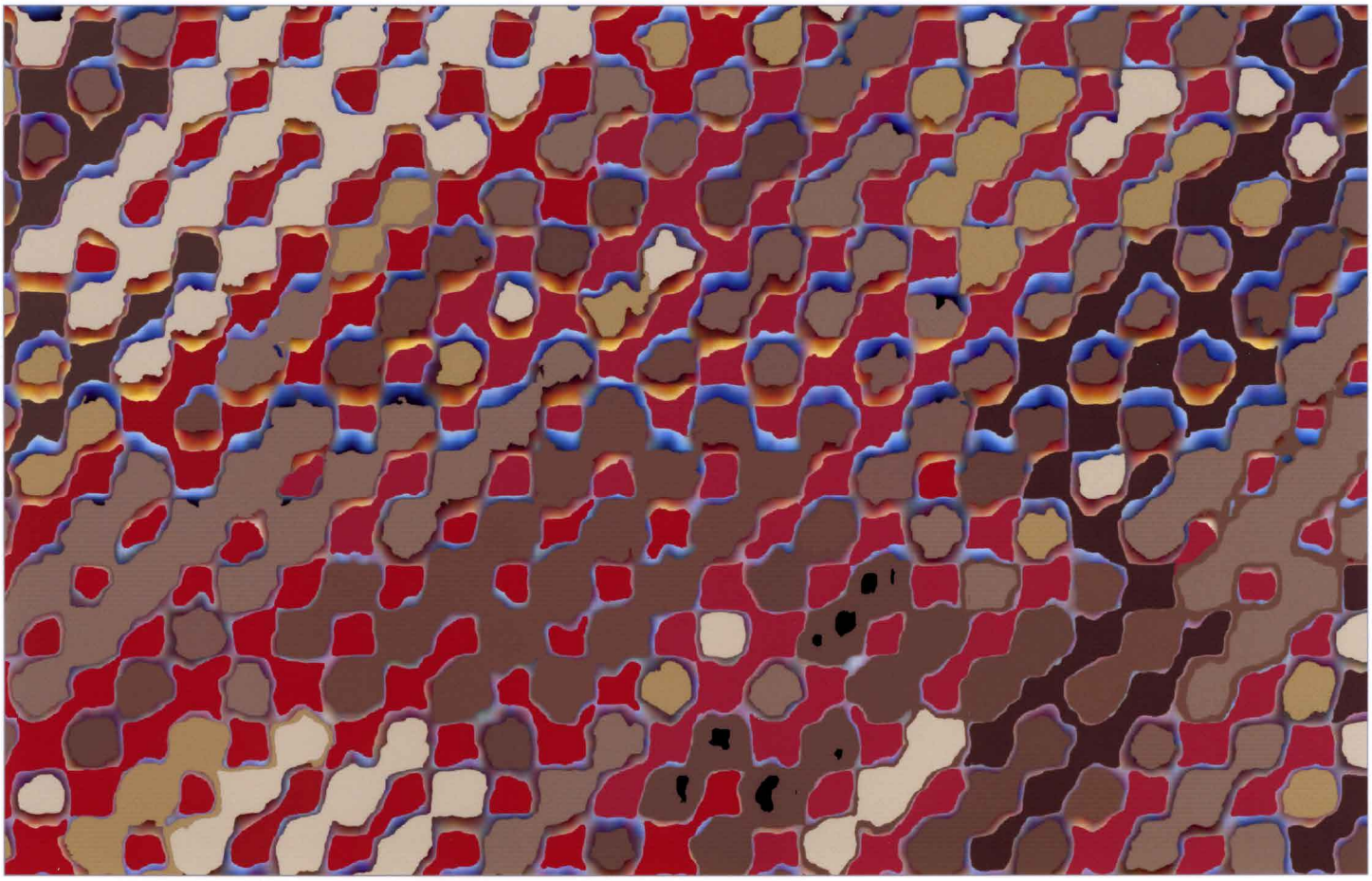
Sabbatical Research

I was awarded sabbatical leave Spring 2004, to explore digital technology as it relates to the production of large-scale prints. I completed four digital prints (3 @ 30 x 40 inches; 1 @ 42 x 52 inches), structurally based on the notion of emergence theory. A concise definition of emergence theory is found in Steven Johnson's book, *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. In it, Johnson describes emergence as: "The movement from low-level rules to higher-level sophistication..." (p. 18). A synopsis of the book describes emergence as "...what happens when an interconnected system of relatively simple elements self-organizes to form more intelligent, more adaptive higher-level behavior. It's a bottom-up model; rather than being engineered by a general or a master planner, emergence begins at the ground level." (Scribner).

In my sabbatical work, I used low-level rules to govern the growth of an image's basic color pattern, through which, a more complex compositional structure evolved. In most cases, the final image was radically different than the image's underlying compositional elements. My strategy grew out of some initial pieces that employed layered images. This initial process proved unworkable in the large scale I had chosen, primarily due to technical limitations of the equipment available. Eventually, I restructured my plan basing my rules on a systematic color application process – with one set of color adjacencies informing the next level application (rather than having image layers determine the rule structure). The ground for this color application was greatly enlarged sections of Ben-Day patterns used to graphically encode black and white newspaper photographs.

Detail of *Qusaybah Quicksand*, 2004, 20 x 40 inches, giclée print.



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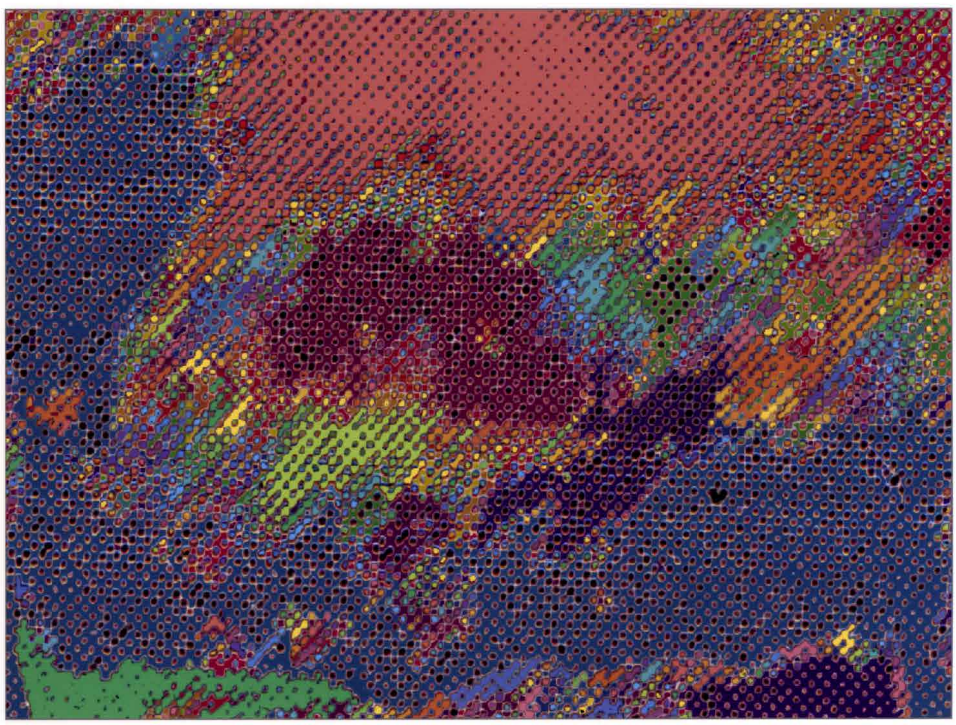
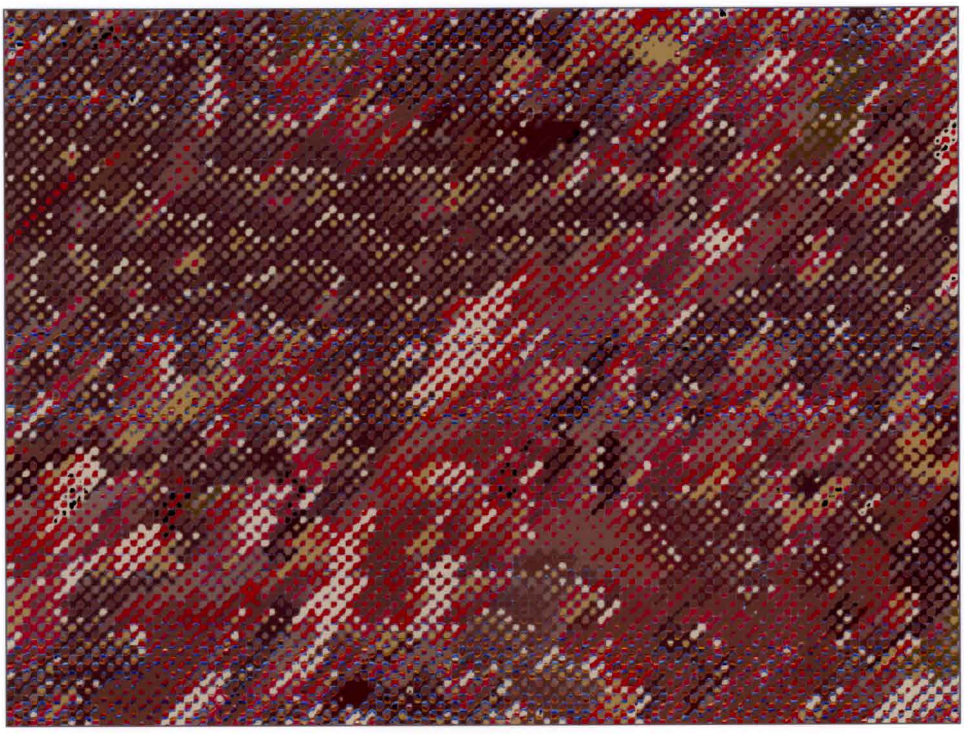
On a conceptual level, I became intrigued with ways the War in Iraq seemed to parallel the very real, yet often hidden cause and effect relationships inherent in most organizational systems. For this reason, I based my images on digital samples of *New York Times* Iraqi war photographs. These base-level samples (approximately 0.5 x 0.7 inch) were digitally compressed (using *PhotoShop*), with levels adjusted to render the images into higher contrast black-and-white dot patterns. Since the original samples were color scans of "black-and-white" images, certain color artifacts emerged after the level adjustments were made. In many cases, these artifacts were retained in the final image by adjusting the sensitivity of the selection tool when the final colors were selected. The patterns that developed in these base-level images as one pass of color was completed, informed the next level of the composition based on another set of color selection rules. Each work employs at least three levels of color selection rules. This compositional schema is strategically akin to the internationally recognized sculptural and graphic work of Sol Lewitt in the '60s, '70s, and '80s, and John Cage's late musical compositions. Lewitt incorporated mathematical permutations to structure the development of his images; Cage relied on randomness — to a degree, my pieces blend both approaches.

Above: *New York Times* source image (red box indicates area of sample). **Below:** The resulting work, *Fire in Falluja*, 2004, 30 x 40 inches, giclée print.



Above: *New York Times* source image (red box indicates area of sample). **Below:** The resulting work, *Qusaybah Quicksand*, 2004, 30 x 40 inches, giclée print.



Process

Initial digital "sketches" for this work incorporated images from a variety of sources including photographs produced using conventional silver-based techniques, digital images that I created using a Cannon PowerShot S230 camera, drawings made with traditional materials and techniques and subsequently digitized, and images appropriated from popular culture. These visual elements were synthesized and manipulated using Adobe *PhotoShop* and *Quark Express*. The final digital files for the four finished works were output on a production quality Epson 10000 printer and an Epson 8500 – both using archival inks and papers. I worked directly with several printers before concluding that Commercial Color in Allentown, PA, provided the best color rendition (they also were able to mount the prints to my specifications – something the other printers were unable to do).

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Relationship between the activities and professional growth

Digital technology is a logical extension of my work as an artist and it is central to the work that I do at the university. As an artist, I was trained in photography and video receiving a BFA in painting/photography (1973) and an MFA in photography/video (1976). Digital technology has radically transformed both of these mediums.

While I have long used both *PhotoShop* and *Quark Express* on a regular basis in the completion of my duties for the university, the sabbatical leave afforded me time to explore and master the deeper potential of *PhotoShop* and it convinced me to find an alternative to *Quark Express* (I'm currently investigating *InDesign*). After the prints were completed, I used *PhotoShop* to resize and reformat the images for inclusion on my website (faculty.kutztown.edu/talley). Since I occasionally work with independent Kutztown University students in the development of web sites and web-based portfolios, the increased knowledge gained from this research will directly impact the quality of information that I give.

This newly acquired knowledge will also directly benefit my work in the Sharadin Art Gallery. I currently design most of the graphic materials used for gallery publicity (exhibition announcements and posters) and graphics associated with the exhibitions (signage and wall text). I use *PhotoShop* and *Quark Express* in these capacities and an increased knowledge of the softwares' potential (and a decision to find a *Quark Express* alternative) will enhance my ability to produce more interesting and effective gallery promotional and didactic materials.

In my work as director of the Slide Library, I have overseen the transition of the collection from film-based images into a digital library. We now are able to offer Art History faculty members complete digital resources to teach Art History Survey A & B and are in the process — with the endorsement of the National Association of Schools of Art and Design's evaluation team — of developing thematically specialized digital image collections for design and crafts. My sabbatical project afforded me the opportunity to more completely explore image adjustment techniques including use of color management systems, custom color profiles, tonal corrections, histograms, levels and curves, input output levels, descreening, and unsharp masks (a process used to sharpen images). Versed in these techniques, I am now better able to train student workers in the finer points of image capture and enhancement as they scan and archive images into these new collections.

Above: *New York Times* source image (red box indicates area of sample). **Left:** The resulting work, *Najaf Negation*, 2004, 30 x 40 inches, giclée print.

Below: *New York Times* source image (red box indicates area of sample). **Next page:** The resulting work: *Iran/Iraq Border*, 2004, 42 x 52 inches, giclée print.

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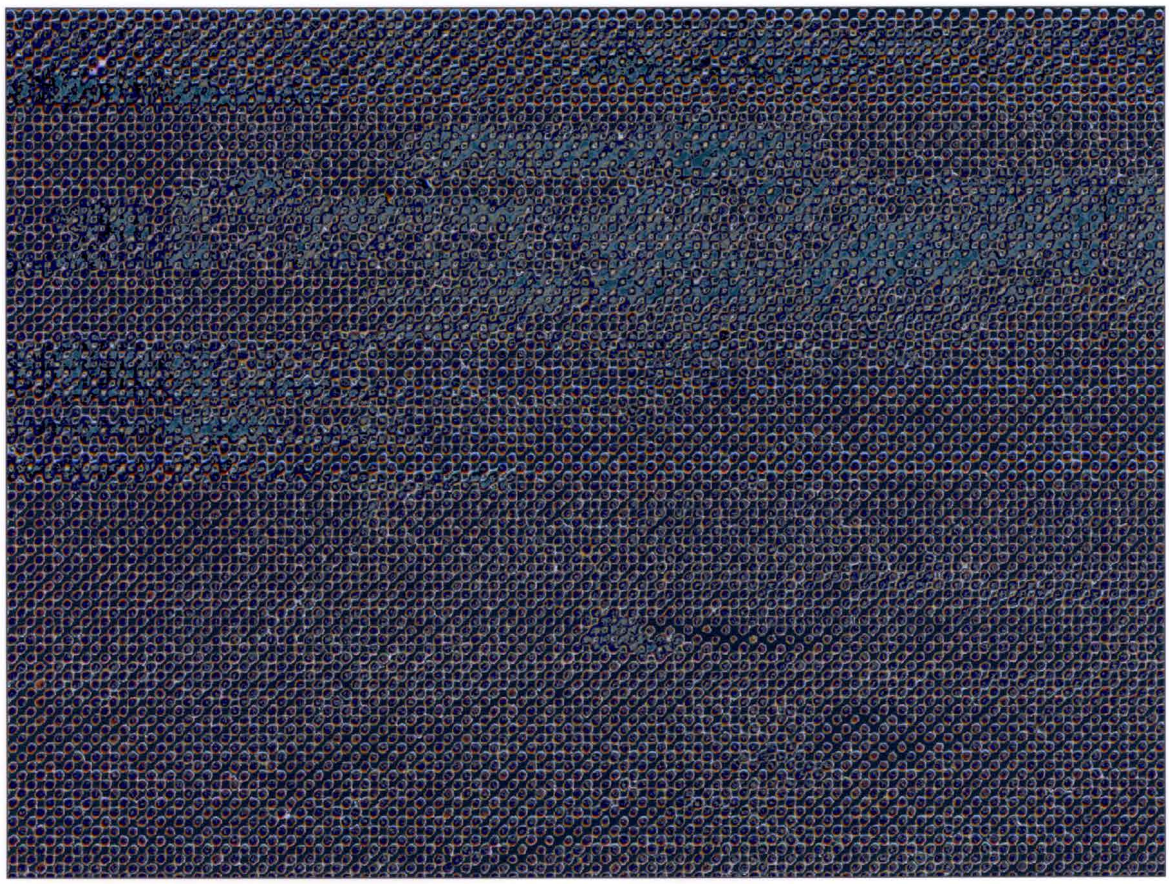
Timetable

I began digital "sketches" for this project long before the sabbatical period began. Much of the initial preparatory work for the project was completed during my first residency at the Hambidge Center for Creative Arts and Sciences in the mountains of North Georgia, May-June, 2002. During my actual sabbatical, I spent the majority March in a second residency at Hambidge. During the second residency, I was able to reformulate the work to avoid the technical limitations presented by my equipment.

In April, shortly after returning to Philadelphia from Hambidge, I produced my first full-size print. Because of the technical set back at the beginning of the project, final prints were still being produced during the summer, with all complete before returning to the university in late August. As mentioned above, my final choice of printers also led me to a solution regarding the presentation of the works. I had considered traditional framing and explored various wood and metal framing options. But while this traditional framing style would have undoubtedly presented the work effectively, it seemed counter to the contemporary spirit of the images (in both content, philosophy, and medium). After discussing the issue with technicians at Commercial Color, I decided to experiment with some alternative mounting options. After initial trial and error (and about $1,200), I've arrived at a presentation style that seems both appropriate and consistent with the tone of the work.

The first and fourth pieces from the series were presented in the 2004 KU Faculty Exhibition and they demonstrate my two favored presentation methods. The smaller of the two works is mounted, full-frame, on black Sintra with a covering of low-sheen laminate (the Sintra is mounted on a 1 x 2 inch support to hold the piece approximately .75 inches from the wall); the larger – and in my estimation the more successful piece – is mounted on white Sintra with the a 6 inch white border around the image (photo paper margin). It too, is covered with laminate and mounted on a 1 x 2 inch support. These two works seems to resolve the technical and aesthetic issues I confronted and have provided me with a solid direction for future work: a series based on newspaper images cropped so as to present only the hands of world leaders. Manipulated in much the same ways as my sabbatical work, this series (to be called *Hands of Power*) will feature works of a somewhat smaller finished size (probably 30 x 30 inches) employing the same color rules and production/mounting techniques as the two works in the faculty show.

Reactions to this new work have been some of the most positive of my entire career and I appreciate the university's willingness to grant me the opportunity to embark on this path.