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# A Digital Transition: Two Cat Digital and Gawain Weaver Art Conservation

Gawain Weaver

*Gawain Weaver Art Conservation*, [info@gawainweaver.com](mailto:info@gawainweaver.com)

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# A Digital Transition: Two Cat Digital and Gawain Weaver Art Conservation

## **Abstract**

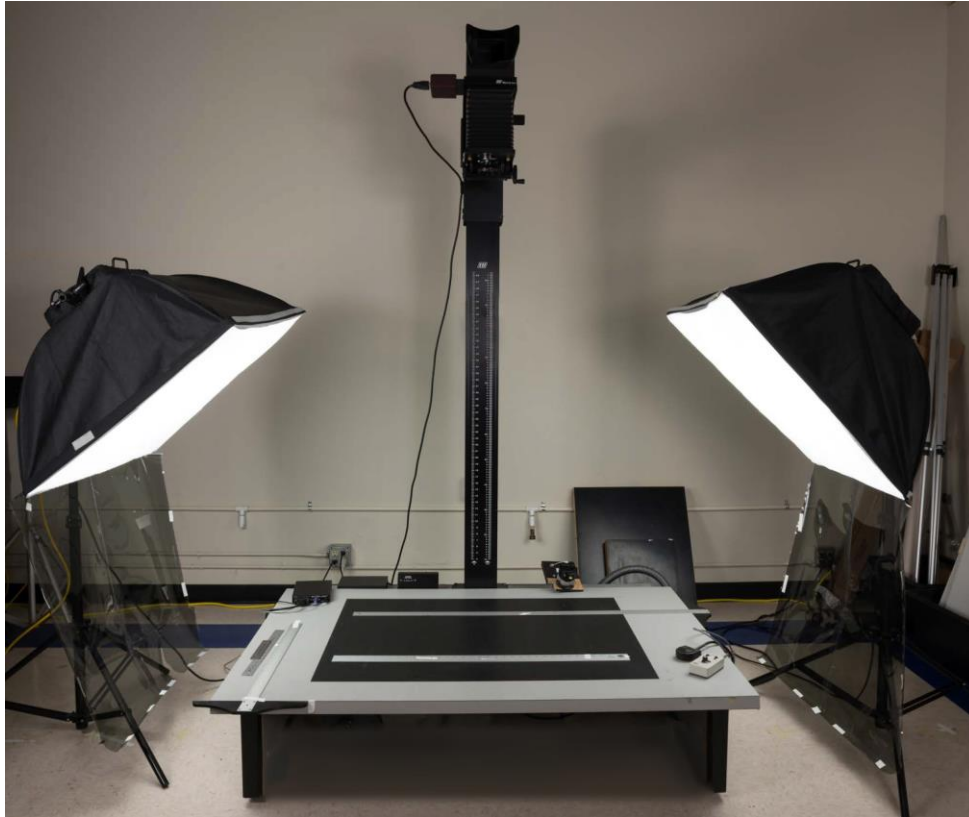
The evolution from scanner and 35mm dSLR to a Phase One IQ3 100MP medium format instant capture system at Two Cat Digital / Gawain Weaver Art Conservation is described, including quality, speed, and cost advantages in the digital capture of reflective and transmissive photographic materials.

## **Author Bio & Acknowledgements**

Gawain Weaver is photograph conservator and President at San Anselmo, CA-based Gawain Weaver Art Conservation and Two Cat Digital. He is a co-author of the AIC Guide to Digital Photography and Conservation Documentation (2011). He received B.A. degrees in art history and chemistry (2001) from Sonoma State University, and an M.A. in art history and diploma in conservation (2005) from the Institute of Fine Arts, New York University. Over the course of his academic career, he interned at the Getty Museum, as well as in the photograph conservation departments of the Amon Carter Museum, Library and Archives Canada, the Museum of Modern Art, and the Northeast Document Conservation Center.

In 2007, he completed a two-year fellowship in the Advanced Residency Program in Photograph Conservation at the George Eastman House and Image Permanence Institute in Rochester, NY, followed by a year as a researcher at the Image Permanence Institute. In 2008, he returned home to Northern California where he lives today, working as a photograph conservator, teacher, and consultant. In addition to teaching photograph preservation workshops each year across the United States and internationally, Gawain teaches photograph preservation in the San Jose State University School of Library and Information Science.

In the summer of 2015, I made an agreement with Howard Brainen of Two Cat Digital (<http://www.twocatdigital.com/>) to purchase the Two Cat Digital business and equipment, moving it from his San Leandro, CA offices to my existing photograph conservation studio in San Anselmo, CA. Gawain Weaver Art Conservation (GWAC) had already been doing a significant amount of digitization, especially with very fragile and deteriorated cellulose nitrate and cellulose acetate negatives, and I knew Howard's reputation and his clients would be a perfect fit.



*Figure 1 TTI-RGW4060 (Tarsia Technical Industries) 40"x60" copy stand with vacuum easel and 45ei worm drive camera*



Figure 2 Better Light 6K-HS scan back with TTI 45ei worm drive camera

By late summer we had moved Howard's 40" x 60" TTI copy stand (Figure 1), Better Light scan back (Figure 2) and other equipment to San Anselmo and we began to integrate the Two Cat equipment into our existing workflows. In the fall of 2015, we digitized the letter archive of the Chilean-American writer and Bay Area resident Isabel Allende. Her letters have often served as inspiration for her books, such as her first novel "The House of the Spirits" which was published in 1982 and later made into a movie. We also captured various collections of 35mm slides, and color and black & white large format negatives. Our typical digital capture projects continued, but now we had more options for very large formats and high-resolution capture of 35mm, 4x5 negatives and transparencies. Based on our client's budget and resolution needs, we found ourselves mostly choosing our rapid capture technique using full frame digital SLRs like the Canon 5D Mark II with 50mm or 100mm macro lenses. This works well for many clients. It keeps the cost down and the quality is often sufficient for the client's purposes.

However, we also felt the need for a better workflow for both hardware & software. Our custom set-ups for each format worked, but were time consuming to calibrate and align given the wide variety of formats we work with, making it costly and harder to justify smaller projects. At the end of 2015, I began to research medium format digital (photography) capture systems and came across Digital Transitions, Inc. (<http://dtdch.com/>), a Phase One dealer and custom cultural heritage imaging equipment vendor based in New York City. In January 2016, Digital Transitions announced their new DT Atom copy stand and film scanning kit paired with their reprographic camera and the brand-new Phase One IQ3 100MP digital back. It was a dream—combining the (high) resolution of a scanner with the speed of our dSLR overhead instant capture systems. Also, the Cultural Heritage version of Phase One's Capture One software provides the batch post-processing and other automated features necessary for large collections. We acquired the Digital Transitions RCam reprographic camera, Atom copy stand, and Phase One IQ3 digital back in early 2016.



*Figure 3 Digital Transitions RCam reprographic camera with Phase One IQ3 100MP digital back*



*Figure 4 High-throughput capture of 35mm slides with DT RCam and Phase One IQ3 100MP digital back*

We still make use of our other scanners and cameras, but the instant capture revolution is here. I've known this in theory for a long time. Over ten years ago, in a digital imaging class with Franziska Frey at George Eastman House (then a professor at the Rochester Institute of Technology before her move to Harvard Library), we discussed the inevitable demise of scanners and the tri-linear array and the transition to area array sensors and camera-based digital capture. It made sense at the time, but the technology wasn't quite ready. But the new DT Atom copy stand together with the Phase One IQ3 100MP digital back (Figure 3 and Figure 4) really brings it home. Not only is it faster and higher-quality than any previous option, it's also safer for the photographic materials than a scanner platen and there is no longer any significant size limitation. The camera's field of view is captured at 11608 x 8708 pixels allowing for the digitization of very large materials.

The types of projects in which we can use this new equipment to help clients, and keep the costs down, include digital capture of both reflective and transmissive photographic materials, documents, and works of art on paper. From 35mm slides to panoramic Cirkut negatives, our Phase One 100MP digital back can capture 48-bit color with an unheard-of 15 stops of dynamic range while also meeting the FADGI 4-star guidelines (<http://www.digitizationguidelines.gov/guidelines/digitize-technical.html>). Customization not possible with traditional scanners, such as capturing both the image and mount of a 35mm slide

or lantern slide, each properly exposed, is now standard practice when our clients want important numbering or inscriptions from the mount recorded within the digital image.

State of the art equipment means high-throughput with minimal handling—the ideal workflow for valued archival materials. In addition, our expertise in the conservation of photographic materials makes it efficient to quickly and easily resolve any deterioration or cleaning issues that might arise with older or fragile archival collections.

The merger with Two Cat Digital has provided the opportunity to upgrade equipment, streamline workflows, and provide added value to GWAC's scanning and other photographic services. We were all sorry to see Howard retire, but it is gratifying to be a part of continuing his legacy of quality scanning and providing photographic advice. Please visit our website at <http://gawainweaver.com/> or contact me directly for more information.