

# WYOMING SHPO PHOTOGRAPHIC AND ARCHIVAL STANDARDS FOR REPORTS AND SITE FORMS

## INTRODUCTION

The following provides background information and an explanation of photographic and archival standards for reports and site forms to be submitted to the Wyoming State Historic Preservation Office. These standards pertain to photographs and physical paper documents only, not the content of the report.

## PHOTOGRAPHS AND ARCHIVAL CONSIDERATIONS

### **Photo Quality Standard**

Photographic documentation is an integral part of site and project recording. Photos serve to supplement the site plan map by documenting aspects of site location, structure, and condition that cannot be easily drawn. Project photos are important in documenting current conditions of the landscape, visual intrusions, vegetation, setting, etc. Photos are a required part of site and project documentation. Black-and-white photographic prints are preferred. Color photographic prints and digital images are acceptable. Photographs and digital images must be clear, crisp and focused. Digital images should not be pixilated. Color or high quality gray-scale is preferred for digital images. Slides may be submitted, but are optional, and are supplemental to photographic prints or digital images. Polaroid prints will not be accepted. Black and white photos are required to document all phases of data recovery.

### **Digital Imaging Equipment**

Digital images must be taken using a camera having at least one megapixel resolution. There are many types and brands available on the market. Recommended web resources for evaluating digital cameras are the Digital Camera Resource Page at [www.dcresource.com](http://www.dcresource.com) or B&H Photo at [www.bhphotovideo.com](http://www.bhphotovideo.com). Consideration should be given to purchasing additional software to correct and improve the quality of the final printed image. Digital camera technology is rapidly improving and becoming less expensive. Consideration should be given to upgrading this technology as with any other computer system. It is not necessary to purchase a state of the art system. It is recommended replacement of this technology be done every three to five years.

### **Photographic Format**

Photographic prints and digital images must be submitted in a 3 x 5 format or larger. Each photo or image must be properly labeled. At a minimum, the label must indicate the following items: subject identification, Smithsonian number, description of image, direction of view, photographer's name, and date. Photographic documentation must be checked in the "Records Inventory" section of the core Wyoming Cultural Properties Form. Digital images printed with laser jet printers using carbon-black ink are more stable for archival purposes. Original prints or original printed digital images of the general project area and other documentary photos or images must be included in the report. Each Wyoming Cultural Properties form must include a general site photo; feature and diagnostic artifact photos should be included as appropriate. Photocopies of photographs or

images will not be accepted. If digital images are submitted, they must be printed on acid-free photo-quality paper.

Careful consideration must be given to the type of inkjet or laser printer used to print your digital images. Inks and printers vary greatly in quality and longevity. Photos must be printed using a printer with a minimum print quality of black resolution of 600 x 600 dpi and color resolution up to 2400 x 1200 dpi (using premium photo papers) or better. "PC World" magazine recommends choosing a six-color ink jet for better color quality and investing in the vendor's recommended photo-quality paper for longest print life. An article entitled "Fight Photo Fade-Out" can be found at <http://www.pcworld.com/news/article/0,aid,50663,00.asp>. In the article there is a review of currently available printers and paper manufactures.

If the original master image is modified or edited using software, a separate file should be saved of the edited version. The master image should be saved unedited. Indicate whether or not the image has been modified or kept in the original form in the image label. Over enlarging of images must be avoided. Photos printed in gray scale must be done with a printer setting at a minimum of 600 dpi. Color photos must be printed at a minimum of 300 dpi.

### **Required Photographs or Images**

The number and kind of photos taken depend on the size and complexity of the archeological site, basic photographic documentation commonly includes the following types of shots:

**Overview photos** showing the entire site in relation to major topographic and cultural features. A photo of such large scale may require several frames and necessitate taking photos at some distance from the site. It is useful to have a person in these shots for scale. If possible, include the site datum in the center of the photo so it can be related to the site sketch map.

**Feature photos** showing some overt site detail (e.g., exposures showing deposit depth, evidence of vandalism or other disturbance, excavation units) or site features (e.g., hearths, stone circles, cairns, surface depressions). Again, it is desirable to have a person or recognizable object in the field of view for scale and have a means of relating the photo to the site map. Show photo points on the sketch map or include a separate map with photo points plotted. Feature photos must be keyed to the site sketch map and site form.

**Artifact photos** showing the size and material of artifacts present, particularly diagnostics, can be an important part of evaluating site significance. A metric scale must be included in this type of photograph and significant items must be keyed to the sketch map. If uncollected diagnostic artifacts cannot easily be photographed, these items must be drawn to scale and keyed to the site map.

## **ARCHIVAL CONSIDERATIONS**

The long-term survival of paper and photographic records is a critical issue. When submitting records to the Wyoming SHPO, please adhere to the following standards:

### **Paper and Forms**

Acid-free paper must be used for all records simply because it lasts longer. As stated above, digital images must be printed on acid-free photo-quality paper. Photo-quality papers and standard acid-free paper is readily

available from any office supply company or on the Internet. For example, these types of paper are available at [www.officedepot.com](http://www.officedepot.com).

All reports and forms must be typed.

### **Durability and Archival Standard**

All imagery submitted must have been created with a process having an image life of at least 20 years. As discussed above, various combinations of papers, inks, films, developers, and treatments may be used. WYCRO may test occasional photographic or digitally produced imagery in appropriate ways to ensure durability of records in the archive. Records that are not sufficiently durable may be rejected as a group.

### **Mounted Photos**

Although the mounting of photographic prints in reports is a necessity, almost all mounting methods cause deterioration of the print with time and eventually lose their adhesive power, resulting in the loss of the print from the page. This cannot be avoided completely, but heat-sensitive adhesive sheets are less destructive and last longer than other methods. In any event use acid-free adhesives. The best method of including photos in a report is to include archivally sound sleeves in the report such as chemically inert polypropylene photo pages. One resource for archival products is Gaylord Archival at [www.gaylord.com](http://www.gaylord.com). There are other archival companies to choose from as well. Note that the stiff plastic sleeves known as PVC, or polyvinyl chloride, must not be used; this material contains gases harmful to just about everything. In all cases, photos must be marked (pencil or permanent ink only -- no ball-point or water-based pens) on the backside for association with the correct figure numbers and captions in the report if they become separated from the report or sleeve. Note that the word "archival", often found on plastic sleeves, does not always refer to archival quality materials; it may refer to the archival company. Care must be taken when purchasing plastic materials, as not all plastics are sound for preservation. Only clear, inert, polypropylene or polyethylene slide and negative pages should be used for negative and slide storage.

### **Magnetic Computer Media**

The Wyoming SHPO is investigating the possibility of electronic photo and document submittal. This is not a current requirement. Currently, submission in electronic format is supplemental to the other photo and report requirements. If images are submitted in a digital format, the images should be created in tiff format. The image format used by digital cameras is usually jpeg. This format uses a compression technique that removes certain portions of the images which the software determines as "extraneous". The removal of a portion of the image can degrade the image quality. A jpeg also does not have the same ability to capture the dot depth that other image formats have. A jpeg is not the file format of choice for the master or archival copy of an image. Tiffs should be submitted on Cdrom or DVD.

However, archiving computer data on magnetic media has two major problems. First, the magnetic media used by most PCs will not reliably store data for extended periods of time. The typical IBM format diskette can only reliably store data for a year or two. Second, the format that applications use for storing data changes as new versions of the application are released. At some point in time the old format becomes unreadable. As with all electronic information, digital images are very volatile which places historical images at risk. The major concerns are: storage media may only last 5 years or less; the hardware and software will become obsolete and place the information at risk; once an image is no longer being accessed for viewing on a regular basis, there is a risk of bit degradation that will not be identified; and the cost of migration of non-accessed information is

extremely expensive. Consequently, at this time, the WYSHPO cannot guarantee the long-term survival of any information submitted on magnetic media.

## **WYOMING SHPO PHOTOGRAPHIC AND ARCHIVAL STANDARDS FOR REPORTS AND SITE FORMS – CHECKLIST**

### **REQUIREMENTS**

Site records must include the following photographs or photographically created images.

Project and site overviews. Scale must be determinable from some key features within the photograph (e.g., people, vehicles, etc.)

Feature photographs. Each feature discovered on the surface or excavated must be photographed. Photographs must include a scale, a north arrow (if appropriate).

Artifact photographs or digital images as appropriate

### **IMAGE QUALITY**

The criterion employed is image legibility. All imagery submitted must be:

- clear
- in focus
- legible to the naked eye

**Note: Digital images that are unclear, blocky (pixilated), or printed at low resolutions will not be accepted, perhaps making the site record incomplete and unacceptable.**

### **LABELS**

Photographic paper images should be labeled on the back of the image as well as underneath if mounted on paper. Digital images printed with a caption must include the same label elements.

- use a #2 pencil or a water proof pen
- include the Smithsonian number (if appropriate)
- feature or artifact identifier (if appropriate)
- a brief description of image
- direction (if appropriate)
- photographer's name
- photograph date
- state if image has been altered from original

### **PAPER**

Acid-free paper must be used for all records

### **INKS**

inks, both manual and printer inks, must be acid free and waterproof

### **ATTACHING TO PAPER**

The criterion employed for attachment to paper is that the attachment must not damage the image or otherwise make it unavailable for future use.

use acid free adhesives

photographic paper images may be submitted in clear inert polypropylene or polyethylene sleeves

### **DIGITAL DATA**

Digital versions of imagery are not a standard. Due to the difficulty of retaining digital media appropriately, the archive does not currently require digital imagery be submitted in electronic format. However, if submitting in an electronic format:

images should be in .tiff format

burned on a high quality Cdrom or DVD

*effective 4/9/02*