THE CAMERA & CLIPBOARD

Historic Architectural Survey Newsletter

National and State Register Programs
Office of Archaeology and Historic Preservation
Colorado Historical Society

November 2002 Number 1

OPENING A NEW COMMUNICATION CHANNEL

Architectural survey is a Colorado growth industry. With the increase in local preservation programs and the availability of State Historical Fund grants to finance survey work, more and more projects are coming on line. As individuals and organizations undertake architectural survey projects, there is a growing need for a channel of communication between those who produce survey data, those who process and store the data, and those who use the data. Opening up those lines of communication is the primary purpose behind the creation of ***The Camera and Clipboard***.

This newsletter will be published periodically to answer survey questions, share new techniques, discuss problem and concerns, and to suggest methods and materials. It is our intent that this newsletter serve as a two-way vehicle. We welcome your ideas, suggestions, questions, concerns and criticism as they relate to the architectural survey process and products in Colorado.

A list of survey contacts in the Office of Archaeology and Historic Preservation is provided on the last page. Please feel free to contact us whenever we can be of assistance. You may also notice a new position in the list, Architectural Survey Coordinator. While a temporary position now, it is our hope to establish this as a permanent part of our staff to assist in the architectural survey process. Anticipated activities for the survey coordinator include:

1. Review State Historical Fund and Certified Local Government applications and architectural survey projects.
2. Develop and conduct basic architectural survey classes for professionals and avocationalists.
3. Develop and conduct advanced, specialty architectural survey training classes for professionals and avocationalists.
4. Assist in evaluating, updating and maintaining the Colorado Historical Society *Cultural Resource Survey Manual* and associated survey forms.
5. Visit properties and survey projects to review the effectiveness of the architectural survey process.
6. Regularly revise and expand the on-line *Guide to Colorado Architecture* and revise and republish the hard copy equivalent.

This and future issues of the newsletter are available on our website at http://www.coloradohistory-oahp.org/programareas/infoman/infoman.htm. Please let us know how we can better tailor ***The Camera and Clipboard*** to fit your needs.

COMPASS

COMPASS PROVIDES ON-LINE ACCESS TO SITES DATABASE

The Colorado Office of Archaeology and Historic Preservation (OAHP) is pleased to announce the availability of a new on-line cultural resource database: COMPASS. This system was developed with a grant from the State Historical Fund and represents a three-year effort to provide qualified individuals with access to much of the information currently available from the main OAHP database. The information stored in COMPASS allows the user to perform searches based on locational parameters, as well as site attributes and management criteria.

We are offering qualified users a ten-day trial period to become familiar with the system. A subscription beyond the trial period is available for a nonrefundable annual fee of $250 per organization. An unlimited number of qualified staff from a subscribing organization may enroll. The subscription fee is waived for the staff of colleges, universities and non-profit organizations.

For more information contact Compass at:
COMPASS@chs.state.co.us

DIGITAL OR CHEMICAL: PICTURING THE RESULTS

Among the many recent changes in the survey process, digital photography has offered some of the biggest opportunities and challenges. Not since Edwin Land introduced his self-developing film system has photography taken such a major turn. Like the Polaroid camera, digital photography brings the architectural surveyor the benefit of seeing instant results. The ability to view an image while still in front of the resources allows the surveyor to verify the quality of the survey images while on site. This can significantly improve the quality of the final product while eliminating a costly site revisit for additional photographs.

Building images captured digitally offer a tremendous level of flexibility in use. The images may be stored in a computer with related survey data as the survey is underway. On completion, the images may be easily imbedded into the hardcopy survey forms as a final product. The images may also be imbedded into survey reports and other summary publications, in planning documents, and incorporated into PowerPoint programs for public presentations. The images may also be used on a website. All these applications make digital photography an appealing choice for the architectural survey.

So why not replace 35mm black and white photography with color digital in the architectural survey process? The answer has a lot to do with the dual nature of survey objectives.

First, there is the short-term uses of survey data. Most often this involves the immediate need to establish the National Register eligibility of cultural resources within a project area. This may be the result of impending actions involving a federal agency. A survey may also be commissioned by a local community as part of local planning, establishment of a local landmarking program, or the creation and/or administration of design guidelines. For these immediate uses, a digital image may work fine (assuming the resolution is high enough to provide the necessary architectural detail).

Questions begin to arise when we consider the second, long-term use of survey data. The information obtained through the survey process provides a baseline against which change may be observed and measured. The accumulation of survey data in a computer database allows the researcher and planner to establish a greater understanding of a broad body of resources, spread over time, geography and use.

For such long-term uses we need to assure that the photographic images will be archivally stable. Black & white film chemically processed and printed with care has been demonstrated to be stable for at least 200 years.

The same cannot be said of digital images. Black & white images printed on acid-free paper offer the greatest potential for long-term stability. Color printing is known to be unstable. Digital images stored on CDs are also not stable. CDs breakdown over time. The images (and text) on CDs must be migrated on a regular basis both to address stability issues and to keep the images accessible by constantly updated software and hardware.

Digital images may be stored in a server, but large collections require massive storage capabilities. Constant backup also must be maintained.

Due to the problems associated with long-term image storage, OAHP will only accept black & white photographs for the official record on architectural surveys. Digital images on CDs may be submitted in addition to black & white photographs. These digital images may be posted on COMPASS along with the associated survey information.

OAHP and the State Historical Fund (SHF) encourage the use of dual photographic recordation in survey projects. In the past, this has generally meant the use of black & white print film and color slide film. Increasingly, digital photography is replacing the use of color slides. OAHP and SHF will be supportive of survey scopes of work and project budgets which include dual photographic recordation.

"COLOR" BLACK & WHITE FILM

Not all black & white film is the same. Some new versions are actually designed to be processed by the same chemical treatment used on color print film. This speeds commercial processing but shortens print life. Though the image is black & white, it suffers from the same instability as color prints. Be very careful to check all black and white film before purchasing or using it for an architectural survey. **Do not use** black and white film which indicates that it is to be developed through the **C-41 process**.

We suggest that you use Kodak Plus-X or TMX for outdoor photography and Tri-X or TMY black and white film for low light conditions. After processing, the negatives must be printed on black & white paper. Be sure the photo finishing lab you use prints its black & white negatives on black & white paper. Commercial labs, like the corner drugstore or supermarket, are increasingly using color print paper to print all types of film. Such papers lack archival stability.

OAHP NO LONGER PROVIDING PHOTOGRAPH SLEEVES

OAHP has had a policy of supplying photograph sleeves for architectural survey forms to be submitted to the office. The growing number of surveys has made it difficult to maintain a sufficient stock. Also, shrinking budgets prevent OAHP from continuing to offer this service. Future projects should build the cost of photo sleeves into the budget. We can supply sleeves for on-going projects that planned to use OAHP-supplied sleeves.

Archival photo sleeves or pages are often available from local stationery, drug, or discount stores. Sleeves may also be ordered on the web from such suppliers as lightimpressionsdirect.com and gaylord.com. Be sure to get archival quality pages —polypropylene—no PVC or "sticky-back" album pages. Please call OAHP if you have any questions.

WHAT'S THE POINT OF POINT NUMBERS?

Electronic databases allow us to link a collection of objects by a variety of descriptive characteristics. In the case of cultural resources, such characteristics include location, age, use and architectural features. Databases allow us to sort resources by a variety of combinations, such as brick, two-story, Queen Anne style houses built before 1890 in Denver.

Classification systems allow a minimal degree of sorting without access to a database. A section in a bookstore may be devoted to American history with books organized chronologically. Such a display allows a browsing customer to locate titles of interest. Library numbering systems, such as Dewey Decimal or Library of Congress, permit knowledgeable patrons to browse specific types of books without wandering aimlessly through the stacks. Yet to find books on specific topics, a few minutes on an electronic library catalog can substitute for hours of browsing.

The same is true for a cultural resource database. The Smithsonian Tri-nominal system used by OAHP for assigning site numbers provides a minimal level of sorting. A site number such as 5DV5000 indicates that the subject property is located in Colorado (5), is more specifically in Denver County (DV), and was the 5,000th property to be assigned a site number in that county. Access to information beyond this simple locational information requires access to the associated hard copy site form or to the summary data extracted from the form and placed in the OAHP Site Files database.

Many large "sites" are themselves collections of smaller, closely related resources. A good example of this is a historic district composed of a collection of historically related commercial or residential buildings. When such districts receive official historic designation, such as National Register or local landmark listing, they are assigned discrete site numbers.

Some time in the misty past, OAHP decided that individual properties within a district should be assigned new site numbers as a subset of the district number. In other words, Denver's Lower Downtown Historic District is 5DV47. Individual sites within the districts were assigned numbers beginning with 5DV47.1. Such site numbers are called ***point numbers*** because they are divided from the base district number by a decimal point. If we know that 5DV47 is the Lower Downtown Historic District, then we also know that 5DV47.4 and 5DV47.60 are within the district.

While it is useful to know a particular site is within an officially designated historic district, one still has to consult the site documentation to establish something as basic as the contributing or non-contributing status of the property.

Unfortunately, the assigning of point numbers got out of hand. They began to be assigned to properties in "eligible" historic districts, in "potential" historic districts before determinations of eligibility were made, and even in "survey areas." Such point numbered sites greatly confused the process and caused many users to assume that collections of "point-numbered" properties had actually received some level of designation, when in fact, the sites may have been linked only by having been part of a survey effort.

Even where point numbers are assigned to properties forming part of an officially eligible district, most such areas are never officially listed. As the years past, changes occur in these areas. These changes may be of such an extent that the area loses its listing eligibility. The continued use of point numbers then implies a relationship and significance that may no longer exist.

Therefore, the use or assignment of point numbers has been significantly reduced. When new properties are surveyed within existing officially designated historic districts which have previously assigned point numbers, new point numbers may be used for the newly surveyed properties. Point numbers are not assigned to properties within newly designated historic districts nor are they assigned to sites within officially eligible historic districts, potential historic districts, or survey areas. Point numbers are still used in the survey of linear resources (roads, railroads, etc.) , but that's another story. (See the article on linear resources on page 6.)

LEXICON ADDITIONS

As a result of the recently completed statewide highway bridge survey, new engineering types have been added to the general Architectural Styles and Types Lexicon. In addition to these types, the terms “pin-connected” and “rigid-connected” have been added for use in the Special Features field. The number of main spans may also be recorded in the Special Features field. Materials (wood, steel, iron, concrete, etc.) would be indicated in the Materials field.

Engineering Types		**Terminology Not in Lexicon**
Category	**Subcategory**	
Arch Superstructure	Open-spandrel Arch	
	Marsh Arch	Rainbow Arch
	Filled-spandrel Arch	
	Luten Arch	
Beam Superstructure		
Culvert Superstructure	Arch Culvert	
	Box Culvert	
	Pipe Culvert	
Girder Superstructure	Deck Girder	
	Through Girder	
Rigid Frame Superstructure		
Slab Superstructure		
Stringer Superstructure		Pile; Trestle
Truss Superstructure	Camelback Truss	“Pin-connected” and “Rigid-connected” are in the Features field
	Camelback Pony Truss	
	Howe Truss	
	Howe Pony Truss	
	Parker Truss	
	Parker Through Truss	
	Parker Pony Truss	
	Pennsylvania Truss	
	Pennsylvania Through Truss	
	Pratt Truss	
	Pratt Deck Truss	
	Pratt Through Truss	
	Pratt Pony Truss	
	Thatcher Truss	
	Thatcher Through Truss	
	Warren Truss	
	Warren Deck Truss	
	Warren Through Truss	
	Warren Pony Truss	

LINEAR RESOURCES: BEWARE THE SNAKE IN THE GRASS

Look out!!! It's a Snake!! Such is the reaction of many surveyors as they approach a linear resource. Linear resources, like snakes, come in all shapes and sizes, but the bite of most, while unpleasant, is seldom fatal.

Linear resources (trails, roads, irrigation ditches, railroad grades) are characterized by their length, often extending for miles. They often cross project sites without a discernable beginning or end. How, you might ask, does one survey such a thing and how can it be evaluated for National Register eligibility? (Thank you for asking.)

Let's begin with the basics. In National Register classification terms, a linear resource is a ***structure***. For example, a railroad grade, along with its cuts and fills, rails and ties, sidings and signals, all represent a single structure. There is a strong urge to classify linear resources as ***districts***, due primarily to their size and complexity. In fact, certain aspects of the grade, like bridges, may be of sufficient engineering magnitude to be classified as ***structures*** in their own right. Then there is the issue of directly-related resources like depots, section houses and water tanks. Each of these may be classified as a ***building*** or ***structure***. So while the grade itself is a structure, the full collection of resources constitutes a transportation corridor, or in National Register parlance, a ***district***. (Are you still tracking?)

Linear resources are seldom surveyed in their entirety. They are most often encountered in the survey of other resources. For instance, a pipeline project survey may cross two roads, a highway, three irrigation ditches and an abandoned railroad grade, in other words—**A SNAKE PIT!!**

The project area, or the area of potential effects in Section 106 terms, usually involves only a portion of each linear resource. Time and budget do not permit a total survey of each linear resource crossed. Yet, just surveying the part of the ***structure*** within the project area doesn't seem to be enough. That would be like surveying only the corner of a house because that is all that extends into the project area. And how would the eligibility of a house corner be evaluated? Well, that is actually what happens with a linear resource. Since the whole resource is not recorded, determinations are most often made for that specific segment in the project area.

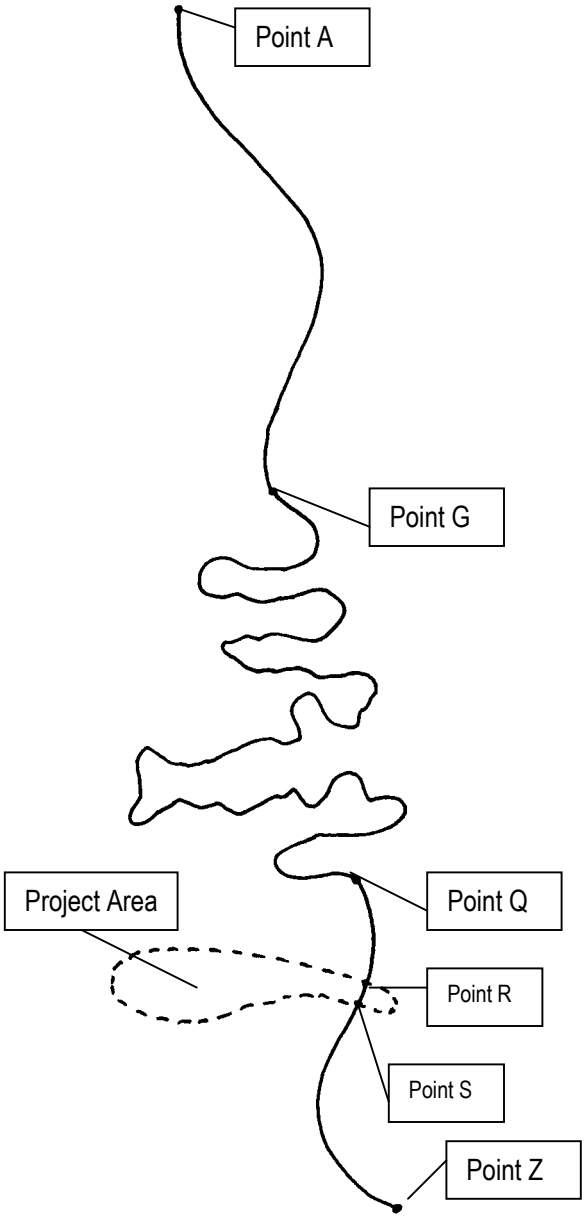
This begs the question, "Are we talking about individual eligibility for the segment or its contributing/noncontributing status?" If we return to our example of a railroad grade, the grade is a ***structure***. Smaller segments do not form contributing or noncontributing resources as this only applies to ***structures*** within a ***district.*** To return to the example of the corner of a house extending into the project area, we would not be able to say that the corner is a contributing part of the house (again in National Register terms) because the house is a ***building*** not a ***district***.

So what do we do? First, we define the full extent of the linear resource. We do not have to include every track or route ever used by a railroad company to define a railroad linear resource. For example, let's say the A&Z Railroad company built and operated a 200-mile line in Colorado between Point A and Point Z. (I just made up those names.) The railroad may have divided its line into three operating divisions—Points A to G, Points G to Q and Points Q to Z (see map). While we could and should evaluate the significance of the full A to Z route, we could also evaluate each of the three operating divisions for their individual significance as ***structures***, particularly where each division is characterized by different topography or type of service.

We can now make a determination of eligibility, based on significance alone, for the A&Z Railroad as a whole and for each of the three divisions. We are assuming that each division retains sufficient integrity to convey its significance, since we have not yet done any field work to assess integrity. For our example, we will say that assuming sufficient integrity exists, we consider the A&Z Railroad as a whole, and each of the three divisions independently, to be eligible for the National Register.

Now we go out to the project area which is intersected by a 100-yard section of the A&Z Railroad between Points R and S. The survey indicates that the railroad retains its physical integrity related to its significance for the 100-yard section in the project area. Here is where we could be tempted to say, "The 100-yard section from Point R to S contributes to the National Register eligible Point Q to Z section of the A&Z Railroad. ("And in fact," you may say, "isn't that the question being asked on line 18 of the Linear Component Form?" More on this later.) It is just so much easier to use the term "contributing" rather than to say that what we really have is "a short section of the Point Q to Z division of the A&Z Railroad which retains sufficient integrity to support the eligibility of the Point Q to Z division." It is very unlikely that the 100-yard segment could be eligible itself because such a segment is too small to contain enough of the character defining features of the division. We really should not call it a "contributing segment" because the Point Q to Z division is a ***structure*** not a ***district***, so by definition it is not composed of contributing and noncontributing segments. (This is all as clear as a tunnel full of coal smoke, right?)

Map of the A&Z Railroad
Point A to Point Z, Colorado



The main points to remember are these:

1) Determine the significance of the full extent of the linear resource.
2) Determine if the linear resource can be divided into individually significant segments based on use or design.
3) In the absence of field documentation, assume that sufficient integrity exists in each segment to convey its significance.
4) Establish preliminary National Register determinations of eligibility based on 1-3 above.
5) Record the linear resource segment within the project area, evaluate its integrity related to the previously established significance and then answer this question: Does the segment in the project area retain sufficient integrity to support the eligibility of the larger linear resource of which it is part?" If the answer is "yes," then the segment in the project area should be treated as an "eligible resource." If the answer is "no," then the segment should be treated as a "not-eligible resource."

And by the way, the full extent of a linear resource in a county is given a single site number (e.g. 5PL1000) and as segments are surveyed chronologically, regardless of location along the resource, each is assigned the next available point number, starting at ".1" (e.g. 5PL1000.1). (See page 4 for more on point numbers)

HISTORIC CONTEXTS AVAILABLE

The following historic contexts have recently been completed. Copies are available from OAHP for the amount shown, or they may be downloaded from the web at the indicated URL.

Culebra River Villages of Costilla County: Village Architecture (614–$3.50)
http://www.coloradohistory-oahp.org/publications/pubs/614.pdf
This document addresses Hispano vernacular architecture of the villages from 1851 to 1964. Discussed are the changes in the landscape and built environment which reflect the evolution of Hispano vernacular architecture.

Highway Bridges in Colorado (632–$8.00)
http://www.coloradohistory-oahp.org/publications/pubs/632.pdf
The document includes the historic context, *The Historical and Technological Evolution of Colorado's Bridges 1880-1958*, and registration requirements for twelve bridge types.

HISTORIC CONTEXTS UNDER DEVELOPMENT

ACRE recently completed the context document, **Highway to the Sky: A Context and History of Colorado's Highway System.** CDOT and the State Historical Fund jointly funded this project. OAHP is currently converting the document into the National Register multiple property format, to be entitled, **Colorado State Roads and Highways.** For the first time ever, we will have a document directed toward the identification and evaluation of important road and highway segments related to the development of vehicular transportation. The multiple property document should be ready to go to the State Review Board at its February meeting.

Statewide irrigation context flowing smoothly

A much needed statewide irrigation context is being developed by Michael Holleran at CU's College of Architecture and Planning. The project is partially funded by a State Historical Fund grant and is scheduled for completion early next year.

Jay Fell Digging in on Statewide Mining Context

November 1st will mark the kick off for the development of a much needed statewide mining context. Jay Fell will be heading up the project funded jointly by the USDA Forest Service and the State Historical Fund. Publication should occur in 18 to 24 months.

ALL NATIONAL REGISTER MULTIPLE PROPERTY DOCUMENTS ON THE WEB

Did you know that the text of ALL the multiple property documents from across the U.S. are available on-line? Just click onto the web at: www.nr.nps.gov.

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